



**Mayor & City Council  
Regular Meeting Agenda**

**Monday, November 13, 2023, 7:00 PM**

**Tucker City Hall**

**1975 Lakeside Pkwy, Ste 350B, Tucker, GA 30084**

**Members:**

Frank Auman, Mayor  
Roger W. Orlando, Council Member District 1, Post 1  
Cara Schroeder, Council Member District 2, Post 1  
Alexis Weaver, Council Member District 3, Post 1  
Virginia Rece, Council Member District 1, Post 2  
Noelle Monferdini, Council Member District 2, Post 2  
Anne Lerner, Council Member District 3, Post 2

**ZOOM Link:** <https://us02web.zoom.us/j/89338334026> or Phone: 888 788 0099 (Toll Free) Webinar ID: 893 3833 4026

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**Pages**

**A. CALL TO ORDER**

**B. ROLL CALL**

**C. PLEDGE OF ALLEGIANCE**

The pledge will be led by the BSA Scout Troop 876

**D. MAYOR'S OPENING REMARKS**

**E. PUBLIC COMMENTS**

**F. APPROVAL OF THE AGENDA**

- Motion to approve/amend the agenda

**G. CONSENT AGENDA**

G.1	Regular Meeting Minutes - October 10, 2023	4
G.2	Regular Meeting Minutes - October 23, 2023	10
G.3	Special Called Meeting Minutes - October 23, 2023	14
G.4	Intergovernmental Lighting Agreement With GDOT	16
G.5	Adoption of the DeKalb County Hazard Mitigation Plan	25

**H. STAFF REPORTS**

**I. OLD BUSINESS**

I.1	Ordinance O2023-10-20	423
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Courtney.Smith

- Second Read and Public Hearing of an Ordinance to amend the Official Zoning Map of the City of Tucker relating to properties along Lawrenceville Hwy, Steel Dr, Woodbriar Cir, Weston Ln, Sheridan St, Lexington Rd, Stockton Dr and Brockett Rd (RZ-23-0002)

I.2 Ordinance O2023-10-21 438  
Courtney.Smith

- Second Read and Public Hearing of an Ordinance for a text amendment to the Tucker Code Chapter 46 Zoning, including changes to adult entertainment establishment regulations. (TA-23-0006)

## J. NEW BUSINESS

J.1 Ordinance O2023-11-22 444  
Courtney.Smith

- First Read and Public Hearing of an Ordinance for a text amendment to the Tucker Code, Chapter 46 Zoning, including changes to special land use permit regulations. (TA-23-0005)

J.2 Ordinance O2023-11-23 Ishri.Sankar 447

- First Read of an Ordinance for a text amendment to the Tucker Code Chapter 38 Streets, Sidewalks, and Other Public Places to create Article IV Traffic Calming

J.3 Contract C2023-029-PO24-617 approved by Resolution R2023-11-23 493  
Ken.Hildebrandt

- Consideration of a contract award for the bid on Juliette Road Median Landscaping Project (ITB# 2023-029)

J.4 Contract C2023-027-PO24-618 approved by Resolution R2023-11-24 541  
Ken.Hildebrandt

- Consideration of a contract award for the bid on Fellowship Road Landscaping Project (ITB# 2023-027)

J.5 Contract C2022-018-TO12-PO24-616 590  
Ken.Hildebrandt

- Consideration of a contract for task order #12 for the Idlewood Road Roundabout Design

J.6 Contract C2023-PO24-626 Tami.Hanlin 607

- Consideration of approval on the Agreement with DeKalb Community Service Board

J.7 Contract C2023-016-TO5-PO24-609 Ishri.Sankar 615

- Consideration of a contract for task order #5 for the video inspection and cleaning of stormwater conduits

J.8 Contract C2023-016-TO7-PO24-607 Ishri.Sankar 632



- Consideration of a contract for task order #7 for stormwater ditch restoration

**K. MAYOR AND COUNCIL COMMENTS**

**L. EXECUTIVE SESSION**

- As required for personnel, real estate and litigation

**M. ACTION AFTER EXECUTIVE SESSION (as needed)**

**N. ADJOURNMENT**



**MAYOR & CITY COUNCIL  
REGULAR MEETING MINUTES**

**Tuesday, October 10, 2023, 7:00 PM  
Tucker City Hall  
1975 Lakeside Pkwy, Ste 350B, Tucker, GA 30084**

Members Present: Frank Auman, Mayor  
Roger W. Orlando, Council Member District 1, Post 1  
Cara Schroeder, Council Member District 2, Post 1  
Alexis Weaver, Council Member District 3, Post 1  
Virginia Rece, Council Member District 1, Post 2  
Noelle Monferdini, Council Member District 2, Post 2  
Anne Lerner, Council Member District 3, Post 2

**ZOOM Link:** <https://us02web.zoom.us/j/89338334026>

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**A. CALL TO ORDER**

Mayor Auman called the meeting to order at 7:00 PM.

**B. ROLL CALL**

The above were in attendance for a quorum.

**C. PLEDGE OF ALLEGIANCE**

The pledge was led by BARK (Being A Real Kid) tutoring program students.

**D. MAYOR'S OPENING REMARKS**

**D.1 2023 Health Promotion & Wellbeing Grant Award**

The City of Tucker was awarded the 2023 Health Promotion & Wellbeing Grant in the amount of \$2500 by GMA, in conjunction with Local Government Risk Management Services (LGRMS).

Mayor Auman mentioned that since the Sep meeting 23 new Occupational Tax Certificate applications were received, and to sign up for the In Tucker Magazine.

**E. PUBLIC COMMENTS**

Public comments were heard from four citizens on merchants with OTC not renewed, an update on the Tucker Arts Alliance, the upcoming Candidates Forum at the Tucker Civic Center, sink hole that is growing, and on the proposed rezones on Brockett Rd.

**F. APPROVAL OF THE AGENDA**

MOVER: N. Monferdini

SECONDER: C. Schroeder

Motion to approve the agenda as presented passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**G. CONSENT AGENDA**

MOVER: N. Monferdini

SECONDER: C. Schroeder

Councilmember Weaver motioned to remove item G.5 from the consent agenda to discuss in new business. Motion to approve the amended consent agenda, approving items G.1 - G.4 and to remove item G.5 to K.7, passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

G.1 Special Called Meeting Minutes - September 6, 2023

G.2 Regular Meeting Minutes - September 11, 2023

G.3 Work Session Minutes - September 25, 2023

G.4 Updates to Select Financial Policies

G.5 Resolution R2023-10-21 to Adopt 2024 Calendar

**H. PRESENTATIONS**

H.1 Year 2024 Benefits Renewal

City Manager Tami Hanlin spoke on the Health Insurance and related benefits which have a calendar year effective date and must be renewed annually by the City Manager.

Human Resources Director Lolita Brown introduced MSI Benefits Group consultant Tommy Hayes, who presented the City of Tucker 2024 Health Benefits.

**I. STAFF REPORTS**

**J. OLD BUSINESS**

J.1 Ordinance O2023-09-16

Community Development Director Courtney Smith spoke on the second read of an Ordinance for text amendments to the Tucker Code Chapter 46 Zoning, including changes to Comprehensive Plan references. Staff recommends approval of TA-23-0004.

Mayor Auman held a public hearing which nobody spoke in favor or opposition.

MOVER: A. Lerner

SECONDER: C. Schroeder

Motion to approve Ordinance O2023-09-16 to amend Code Chapter 46 Zoning as presented passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**J.2 Ordinance O2023-09-17**

City Attorney Ted Baggett spoke on the second read of an Ordinance to amend the Tucker Code to create Chapter 6 Animals.

MOVER: C. Schroeder

SECONDER: V. Rece

Motion to approve Ordinance O2023-09-17 to create Code Chapter 6 Animals as presented passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**K. NEW BUSINESS**

**K.1 Ordinance O2023-10-18**

Community Development Director Courtney Smith spoke on the first read of an Ordinance for amendments to the Tucker Strategic Transportation Master Plan.

**FIRST READ**

**K.2 Ordinance O2023-10-19**

Finance Director Beverly Hilton spoke on the first read of an Ordinance for amending the Tucker Purchasing Policy and to Provide Self-Certification as Required by the Code of Federal Regulations to Establish a Micro-Purchasing Threshold as Required for Purchasing Using Federal Funds.

**FIRST READ**

**K.3 Ordinance O2023-10-20**

Community Development Director Courtney Smith spoke on the first read of an Ordinance to amending the Official Zoning Map of the City of Tucker relating to properties along Lawrenceville Hwy, Steel Dr, Woodbriar Cir, Weston Ln, Sheridan St, Lexington Rd, Stockton Dr and Brockett Rd (RZ-23-0002).

Mayor Auman opened a public hearing which one citizen spoke in favor and one citizen spoke in opposition regarding increased traffic.

**FIRST READ**

**K.4 Contract #C2023-PO24-597**

Capital Projects Coordinator Micah Seibel spoke on the consideration of approval for lease and installation of 15 Flock License Plate Reader Cameras and Software for \$37,500 annual cost and installation.

MOVER: A. Lerner

SECONDER: V. Rece

Motion to approve Contract #C2023-PO24-597 for 15 Flock License Plate Reader Cameras and Software passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**K.5 Contract #C2023-PO24-570**

Parks and Recreation Director Carlton Robertson spoke on the consideration of approval of a contract to install a six row, 258 seat retractable bleacher system at the Tucker Recreation Center gymnasium. This will provide seating during games and practice but also allow removal during open gym times to remove unsafe obstacles. Recommendation to Sportscon, LLC in the amount of \$37,788.00.

MOVER: C. Schroeder

SECONDER: A. Weaver

Motion to approve Contract #C2023-PO24-570 to Sportscon passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**K.6 Contract #C2019-037-TO21-PO24-579**

Parks and Recreation Director Carlton Robertson spoke on the consideration of approval of a contract to complete the design and engineering phase of the Lord Park development. Recommendation for a total of \$45,000.00 with Root Design Studio, LLC

MOVER: R. Orlando

SECONDER: V. Rece

Motion to approve Contract #C2019-037-TO21-PO24-579 to Root Design Studio, LLC passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

K.7 Resolution R2023-10-21 to Adopt 2024 Calendar

MOVER: A. Weaver

SECONDER: N. Monferdini

Motion to amend the Council Meeting date on June 24, 2024 to June 26, 2024 by Councilmember A. Weaver. Motion to approve Resolution R2023-10-21 to adopt the amended City of Tucker Official 2024 Calendar passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**L. MAYOR AND COUNCIL COMMENTS**

The Mayor and Council thanked everyone for attending, mentioned that the National Night Out and Taste of Tucker events went great and spoke on upcoming events.

**M. EXECUTIVE SESSION**

None

**N. ACTION AFTER EXECUTIVE SESSION**

None

**O. ADJOURNMENT**

MOVER: C. Schroeder

SECONDER: V. Rece

Motion to adjourn meeting at 9:00 PM passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

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APPROVED: Frank Auman, Mayor

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ATTEST: Bonnie Warne, Clerk

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Date Approved



**MAYOR & CITY COUNCIL  
REGULAR MEETING MINUTES**

**Monday, October 23, 2023, 7:00 PM  
Tucker City Hall  
1975 Lakeside Pkwy, Ste 350B, Tucker, GA 30084**

Members Present: Frank Auman, Mayor  
Roger W. Orlando, Council Member District 1, Post 1  
Cara Schroeder, Council Member District 2, Post 1  
Alexis Weaver, Council Member District 3, Post 1  
Virginia Rece, Council Member District 1, Post 2  
Noelle Monferdini, Council Member District 2, Post 2  
Anne Lerner, Council Member District 3, Post 2

ZOOM Link: <https://us02web.zoom.us/j/89338334026>

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**A. CALL TO ORDER**

Mayor Auman called the meeting to order at 7:00 PM.

**B. ROLL CALL**

The above were in attendance for a quorum.

**C. PLEDGE OF ALLEGIANCE**

**D. MAYOR'S OPENING REMARKS**

Proclamation P23-07 Breast Cancer Awareness Month

The Mayor and City Council proclaim that October 2023 is recognized as Breast Cancer Awareness Month.

Proclamation P23-08 Domestic Violence Awareness Month

The Mayor and City Council proclaim that October is recognized as Domestic Violence Awareness Month.

**E. APPROVAL OF THE AGENDA**

MOVER: N. Monferdini

SECONDER: C. Schroeder

Motion to approve the agenda as presented passed unanimously.



AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**F. MONTHLY REPORTS**

F.1 Monthly Financials Report - September 2023

F.2 Report on Upcoming Agenda Items

**G. PRESENTATIONS**

G.1 Presentation by the DeKalb Community Service Board (CSB)

DeKalb Community Service Board gave a presentation to explain their mission and explore partnership opportunities. They are a State funded agency (staff are State employees) that deliver local services. The goal of the organization is to provide; crisis services including assessment, support, intervention, and stabilization; temporary observation services, medically monitored substance withdrawal management, brief individual and group counseling and linkage to community-based services. They work with DeKalb Police and often are called by the Police to provide follow up services that the Police do not have available. They currently work with Doraville, Dunwoody, and Decatur. They are proposing that the City contract with the CSB for a dedicated Case Worker who would be focused on Tucker. The case worker would be charged with identifying community resources (NETworks, churches, etc.) and working directly with unhoused individuals and those in crisis. The Case Worker would have an office at City Hall and could be full or part time. A one-year contract would be for 20 hours per week, as it is difficult to determine the extent of the need without supporting data. The cost would be approximately \$32,000 for the first year.

**H. OLD BUSINESS**

H.1 Ordinance O2023-10-18

Community Development Director Courtney Smith spoke on the second read of an Ordinance for amendments to the Tucker Strategic Transportation Master Plan.

MOVER: V. Rece

SECONDER: R. Orlando

Motion to approve Ordinance O2023-10-18 changes to the Tucker Strategic Transportation Master Plan as submitted passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

H.2 Ordinance O2023-10-19

Finance Director Beverly Hilton spoke on the second read of an Ordinance for amending the Tucker Purchasing Policy and to provide Self-Certification as required by the Code of

Federal Regulations to Establish a Micro-Purchasing Threshold as required for Purchasing Using Federal Funds.

MOVER: C. Schroeder

SECONDER: A. Weaver

Motion to approve Ordinance O2023-10-19 to amend the Tucker Purchasing Policy as presented passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**I. NEW BUSINESS**

**I.1 Ordinance O2023-10-21**

Community Development Director Courtney Smith spoke on the first read of an Ordinance for amending the City of Tucker Code, Chapter 46 Zoning, including changes to adult entertainment establishment regulations. (TA-23-0006)

Mayor Auman held a public hearing which nobody spoke in favor or opposition.

**FIRST READ**

**J. MAYOR AND COUNCIL COMMENTS**

The Mayor and Council thanked everyone for attending, mentioned that the 2 proclamations are important to recognize, and that the Parks & Rec Fishing Derby was great fun.

**K. EXECUTIVE SESSION**

None

**L. ACTION AFTER EXECUTIVE SESSION**

None

**M. ADJOURNMENT**

MOVER: N. Monferdini

SECONDER: C. Schroeder

Motion to adjourn meeting at 7:45 PM passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

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APPROVED: Frank Auman, Mayor

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ATTEST: Bonnie Warne, Clerk

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Date Approved



**MAYOR & CITY COUNCIL  
SPECIAL CALLED MEETING MINUTES**

**Monday, October 23, 2023, 4:00 PM  
Tucker City Hall  
1975 Lakeside Pkwy, Ste 350B, Tucker, GA 30084**

Members Present: Frank Auman, Mayor  
Roger W. Orlando, Council Member District 1, Post 1  
Cara Schroeder, Council Member District 2, Post 1  
Alexis Weaver, Council Member District 3, Post 1  
Virginia Rece, Council Member District 1, Post 2  
Noelle Monferdini, Council Member District 2, Post 2  
Anne Lerner, Council Member District 3, Post 2

**ZOOM Link:** <https://us02web.zoom.us/j/89338334026>

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**A. CALL TO ORDER**

Mayor Auman called the meeting to order at 4:00 PM.

**B. ROLL CALL**

The above were in attendance for a quorum.

**C. MAYOR'S OPENING REMARKS**

**D. EXECUTIVE SESSION**

MOVER: V. Rece

SECONDER: C. Schroeder

Motion to enter into Executive Session for the purpose of personnel, real estate and litigation at \_\_\_PM passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

MOVER: A. Weaver

SECONDER: V. Rece

Motion to exit Executive Session and return to the special called meeting at 6:08 PM passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

**E. ACTION AFTER EXECUTIVE SESSION**

None

**F. ADJOURNMENT**

MOVER: C. Schroeder

SECONDER: V. Rece

Motion to adjourn meeting at 6:11 PM passed unanimously.

AYES: (7): F. Auman, R. Orlando, C. Schroeder, A. Weaver, V. Rece, N. Monferdini, and A. Lerner

**APPROVED (7 to 0)**

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APPROVED: Frank Auman, Mayor

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ATTEST: Bonnie Warne, Clerk

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Date Approved



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ken Hildebrandt, City Engineer  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for Intergovernmental Lighting Agreement With GDOT

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### **Description for on the Agenda:**

Intergovernmental Lighting Agreement With GDOT

### **Issue:**

Approval of an Intergovernmental Agreement with the Georgia Department of Transportation for lighting at the Mountain Industrial Boulevard @ US 78 interchange.

### **Recommendation:**

Staff recommends approving the agreement and subsequently reaching out to Georgia Power for a lighting maintenance agreement.

### **Background:**

The intersection improvement of Mountain Industrial Boulevard @ US 78 is currently under design. It has been identified as having the highest accident rate in the City of Tucker. This safety project includes installing a narrow median on MIB from Greer Circle to Elmdale Drive and realigning the US 78 ramps. To further improve safety, the project design includes adding 45 streetlights on the US 78 ramps. The design is being funded with Georgia Transportation Infrastructure Grant money and there is \$5.2M in federal funding on the construction phase. Right-of-way acquisition is scheduled for next year with construction slated for 2025.

### **Summary:**

This IGA absolves the Georgia Department of Transportation of any responsibility for the operation, repair, and maintenance of the lighting. While this will be the responsibility of the City of Tucker, the intent is to enter into a lighting services agreement with Georgia Power for the maintenance and electric costs once the lighting is installed.

### **Financial Impact:**

There is no financial impact at this time. Once the streetlights have been installed, we will work with Georgia Power on a lighting services agreement for the maintenance and electric costs.

**INTERGOVERNMENTAL LIGHTING AGREEMENT**  
**BETWEEN**  
**GEORGIA DEPARTMENT OF TRANSPORTATION**  
**AND**  
**CITY OF TUCKER**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_, (“Effective Date”) by and between the **GEORGIA DEPARTMENT OF TRANSPORTATION**, an agency of the State of Georgia, hereinafter called the **DEPARTMENT**, and the **CITY OF TUCKER, GEORGIA** acting by and through its City Council, hereinafter called the **CITY** (the **DEPARTMENT** and the **CITY** are sometimes referred to herein individually as a “Party” and collectively as the “Parties”).

**WHEREAS**, the **CITY** has represented to the **DEPARTMENT** a desire to obtain roadway lighting as part of the **SR 410/US 78 @ CR 9476/MOUNTAIN IND BLVD - VRU** project, said lighting to be installed under P.I. No. 0017399, DeKalb County;

**WHEREAS**, the **CITY** has represented to the **DEPARTMENT** a desire to participate in: 1) Providing the Energy and 2) the Operation and Maintenance of said lighting system at the aforesaid location, and the **DEPARTMENT** has relied upon such representation; and

**WHEREAS**, the **CITY** has indicated a willingness to fund the materials and installation for the said lighting system at the aforesaid location, with funds of the **CITY**.

**NOW, THEREFORE**, in consideration of the mutual promises made and of the benefits to flow from one to the other, the **DEPARTMENT** and the **CITY** hereby agree each with the other as follows:

#### **ARTICLE I** **INSTALLATION**

The **CITY** or its assigns shall cause the installation of all materials and equipment necessary for roadway lighting as part of the **SR 410/US 78 @ CR 9476/MOUNTAIN IND BLVD - VRU** project, said lighting to be installed under P.I. No. 0017399, DeKalb County as shown on Attachment "A" attached hereto and made a part hereof.

#### **ARTICLE II** **CITY'S RESPONSIBILITIES**

1. Upon completion of installation of said lighting system, and acceptance by the **DEPARTMENT**, the **CITY** shall assume full responsibility and costs for the operation, the repair and the maintenance of the entire lighting system, including but not limited to repairs of any damages, replacement of lamps, ballasts, luminaires, lighting structures, associated equipment, conduit, wiring and service equipment, and the requirements of the Georgia Utility Facility Protection Act. The **CITY** further agrees to provide and pay for all the energy required for the operation of said lighting system.



2. The **CITY**, in its operation and maintenance of the lighting system, shall not in any way alter the type or location of any of the various components which make up the entire lighting system without prior written approval from the **DEPARTMENT**.

3. It is understood by the **CITY** that the **DEPARTMENT** has relied upon the **CITY'S** representation of providing for the energy, maintenance, and operation of the lighting represented by this Agreement; therefore, if the **CITY** elects to de-energize or fails to properly maintain or to repair the lighting system during the term of this Agreement, the **CITY** shall reimburse the **DEPARTMENT** the materials cost for the lighting system. If the **CITY** elects to de-energize or fails to properly maintain any individual unit within the lighting system, the **CITY** shall reimburse the **DEPARTMENT** for the material cost for the individual unit which will include all costs for the pole, luminaires, foundations, and associated wiring. The **DEPARTMENT** will provide the **CITY** with a statement of material costs upon completion of the installation.

### **ARTICLE III** **TERM OF AGREEMENT**

This Agreement is considered as continuing for a period of fifty (50) years from the date of execution of this Agreement. The **DEPARTMENT** reserves the right to terminate this Agreement, at any time for just cause, upon thirty (30) days written notice to the **CITY**.

### **ARTICLE IV** **RIGHT OF ENTRY**

1. The **CITY** will be permitted to access the **DEPARTMENT'S** Right of Way in order to perform its responsibilities under **Article I** and **ARTICLE II, PARAGRAPH 1**, of this Agreement.

2. The **DEPARTMENT** will be permitted to access the lightening system and/or an individual unit within the lighting system, if said access is needed to maintain or repair said lighting system or an individual unit within the lighting system, pursuant to **ARTICLE II, PARAGRAPH 3**, of this Agreement.

#### **ARTICLE V** **INDEMNIFICATION**

To the extent allowed by law, the **CITY** and all its successors and assigns, shall release and save harmless the **DEPARTMENT**, past, present and future board members, commissioners, officers, employees, agents, attorneys, affiliates, privies, successors, and assigns, and the State of Georgia, its political subdivisions, departments, agencies, commissions, affiliates, employees, agents, and attorneys from all suits, claims, actions or damages of any nature whatsoever resulting from the **CITY'S** access to **DEPARTMENT'S** Right of Way.

#### **ARTICLE VI** **MISCELLANEOUS**

1. **NON-WAIVER.** No failure of either Party to exercise any right or power given to such Party under this Agreement, or to insist upon strict compliance by the other Party with the provisions of this Agreement, and no custom or practice of either Party at variance with the terms and conditions of this Agreement, will constitute a waiver of either Party's right to demand exact and strict compliance by the other Party with the terms and conditions of this Agreement.
2. **NO THIRD-PARTY BENEFICIARIES.** Nothing contained herein shall be construed as conferring upon or giving to any person, other than the Parties hereto, any rights or benefits under or by reason of this Agreement.
3. **SOVEREIGN IMMUNITY.** Notwithstanding any other provision of this Agreement to the contrary, no term or condition of this Agreement shall be construed or interpreted as a waiver, express or

implied, of any of the immunities, rights, benefits, protection, or other provisions under the Georgia Constitution.

4. **CONTINUITY.** Each of the provisions of this Agreement will be binding upon and inure to the benefit and detriment of the Parties and the successors and assigns of the Parties.
5. **WHEREAS CLAUSE AND EXHIBITS.** The Whereas Clauses and Exhibits hereto are a part of this Agreement and are incorporated herein by reference.
6. **SEVERABILITY.** If any one or more of the provisions contained herein are for any reason held by any court of competent jurisdiction to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability will not affect any other provision hereof, and this Agreement will be construed as if such invalid, illegal or unenforceable provision had never been contained herein.
7. **CAPTIONS.** The brief headings or titles preceding each provision hereof are for purposes of identification and convenience only and should be completely disregarded in construing this Agreement.
8. **INTERPRETATION.** Should any provision of this Agreement require judicial interpretation, it is agreed that the court interpreting or construing the same shall not apply a presumption that the terms hereof shall be more strictly construed against one Party by reason of the rule of construction that a document is to be construed more strictly against the Party who itself or through its agent prepared the same, it being agreed that the agents of all Parties have participated in the preparation hereof.
9. **ENTIRE AGREEMENT.** This Agreement supersedes all prior negotiations, discussion, statements and agreements between the Parties and constitutes the full, complete and entire agreement between the Parties with respect hereto; no member, officer, employee or agent of either Party has authority to make, or has made, any statement, agreement, representation or contemporaneous agreement, oral or written, in connection herewith, amending, supplementing, modifying, adding to, deleting from, or changing the terms and conditions of this Agreement. No modification of or amendment to this Agreement will be binding on either Party hereto unless such modification or amendment will be properly authorized, in writing, properly signed by both Parties and incorporated in and by reference made a part hereof.

The covenants herein contained shall, except as otherwise provided accrue to the benefit of and be binding upon the successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement the day  
and year first above written.

**GEORGIA DEPARTMENT  
OF TRANSPORTATION**

**CITY OF TUCKER**



\_\_\_\_\_  
Commissioner

(SEAL)

\_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

(SEAL)

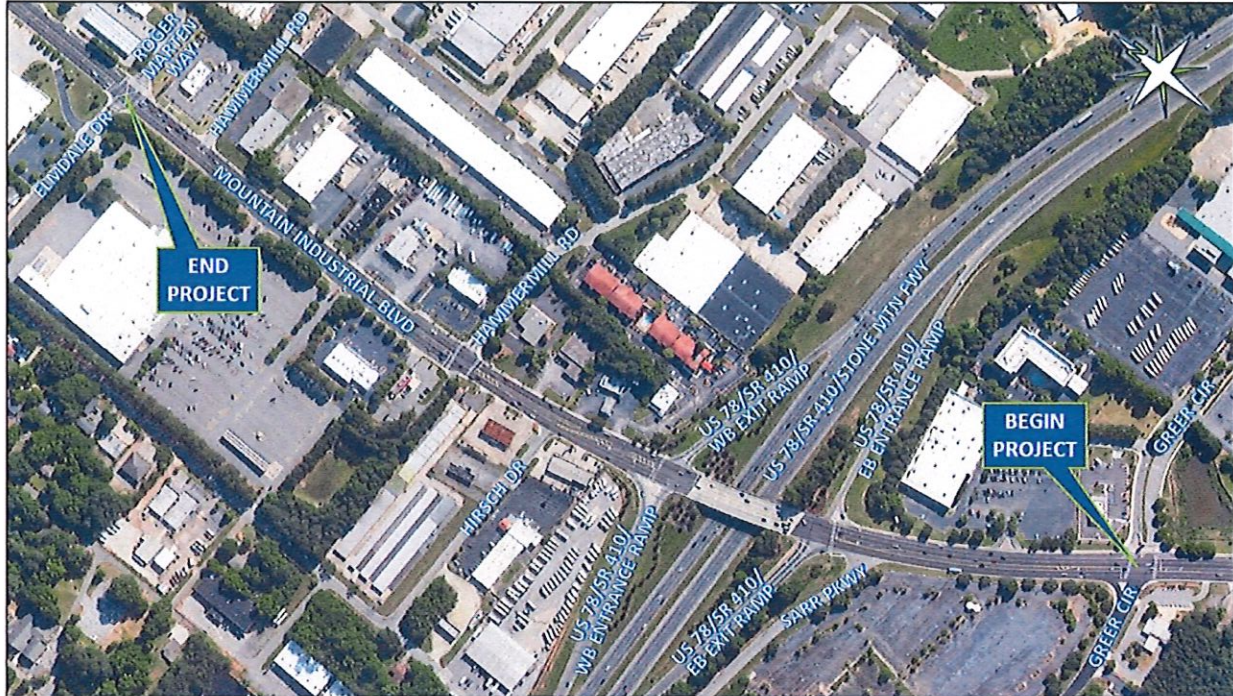
ATTEST:

ATTEST:

\_\_\_\_\_  
Treasurer

\_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_

## Attachment "A"



**Project Location Map**

**SR 410/US 78 @ CR 9476/MOUNTAIN IND BLVD - VRU  
DeKalb County  
P.I. No. 0017399**





**Russell R. McMurtry, P.E., Commissioner**  
One Georgia Center  
600 West Peachtree Street, NW  
Atlanta, GA 30308  
(404) 631-1000 Main Office

October 26, 2023

Tami Hanlin, City Manager  
City of Tucker  
1975 Lakeside Parkway  
Suite 350A  
Tucker, GA 30084

***RE: Roadway lighting assistance for SR 410/US 78 @ CR 9476/MOUNTAIN IND  
BLVD-VRU – P.I. No. 0017399; City of Tucker***

Dear Ms. Hanlin,

The Department will require a signed agreement for roadway lighting installed as part of the above referenced project. The lighting shall be administered in the form of a Local Government Lighting Project Agreement (LGLPA). It will be the responsibility of the City to provide the Energy, Operation and Maintenance for the system.

Attached for your review are two (2) original copies of the proposed LGLPA between the Georgia Department of Transportation and the City of Tucker, for City and State participation. It is requested that a Resolution be secured from the City Council before entering into the Agreement. By virtue of the Resolution, the City can then enter into the Agreement. The Resolution/Agreement process can be done concurrently. If you concur with the terms of this Agreement, please attach an official copy of the Resolution (including all signatures and seals) to each of the Agreements. Then, please obtain the necessary signatures and appropriate seals from the City Council on the two copies of the Agreement and return both copies to the Office of Design Policy & Support for further handling. *Please do not fill in the date on the first page of the Agreement, as the Department will complete this upon execution.* We will return one copy of the executed Agreement for your files.



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** John McHenry  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13<sup>th</sup>, 2024  
**RE:** Memo for Adoption of the DeKalb County Hazard Mitigation Plan

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**Description for on the Agenda:** Adoption of the DeKalb County Hazard Mitigation Plan

**Issue:** The 2022 Countywide Hazard Mitigation Update was developed by DeKalb County to 1) revise the previous hazard mitigation activities of Unincorporated DeKalb County, Georgia, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), and Stone Mountain (City), and 2) identify the hazard mitigation activities of new plan participants, Stonecrest (City) and Tucker (City), which together form the 'planning area.' This plan supersedes DeKalb's 2016 Countywide Hazard Mitigation Plan Update and outlines a mitigation strategy for five (5) years following plan approval and adoption by all plan participants.

**Recommendation:** The DeKalb Office of Emergency Management respectfully requests that the City of Tucker Governing Body accepts this recommendation for adoption of the updated 2022 DeKalb County Multi-Jurisdictional Hazard Mitigation Plan by Resolution. By doing so, Tucker will be eligible to apply for grants through GEMA and FEMA to begin working to reduce and eliminate the long-term effects of disasters in our community.

### Summary:

The 2022 Countywide Hazard Mitigation Update was developed to 1) revise the previous hazard mitigation activities of Unincorporated DeKalb County, Georgia, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), and Stone Mountain (City), and 2) identify the hazard mitigation activities of new plan participants, Stonecrest (City) and Tucker (City), which together form the 'planning area.'

The plan update was prepared in partnership with the DeKalb County Emergency Management Agency, the DeKalb County Mitigation Planning Committee, and Tennessee-based BOLDplanning Inc., a division of Agility (<https://www.agilityrecovery.com>). It supersedes DeKalb's 2016 Countywide Hazard Mitigation Plan Update and outlines a mitigation strategy for five (5) years following plan approval and adoption by all plan participants.

Formal adoption and implementation of a federally approved hazard mitigation plan (HMP) presents many benefits to DeKalb County and the participating jurisdictions. Most notably, by identifying problems and possible solutions in advance of natural disasters, the planning area will be in a better position to obtain hazard mitigation funding from the Federal Emergency Management Agency (FEMA). This may include both pre- and post-disaster financial assistance.

The 2022 Countywide Hazard Mitigation Plan Update aims to produce the following strategic outcomes:

- Reduce loss of life and decrease property losses due to the occurrence of natural disasters within the planning area; and
- Provide the framework and coordination to encourage government, and both public and private sector organizations at all levels, to undertake mitigation to minimize potential disasters and to employ mitigation strategies in the recovery following disasters.

Specifically, these strategic outcomes will be brought about through the following planning process:

- 1) Identify, describe, and characterize the hazards to which the planning area is susceptible; and
- 2) Assess the risk of each hazard, including probability, frequency, exposure, and vulnerability; and
- 3) Examine feasible mitigation opportunities appropriate for the identified hazards, and prioritize those opportunities; and
- 4) Implement mitigation actions to reduce loss of life and damage to property; and
- 5) Identify mitigation opportunities for long-term planning consideration.

## **Overview**

The 2022 Countywide Hazard Mitigation Update was prepared in partnership with the DeKalb County Emergency Management Agency, the DeKalb County Mitigation Planning Committee, and Tennessee-based BOLDplanning Inc., a division of Agility (<https://www.agilityrecovery.com>). It supersedes DeKalb's 2016 Countywide Hazard Mitigation Plan Update and outlines a mitigation strategy for five (5) years following plan approval and adoption by all plan participants.

2022 Countywide Hazard Mitigation Update involves 13 participants, 11 of which were included in the previous plan (2016) and two (2) of which are new. These consist of DeKalb County, i.e., unincorporated DeKalb County, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), and Stone Mountain (City), as well as Stonecrest (City) and Tucker (City), respectively. The cities of Stonecrest and Tucker were incorporated in 2016.

## **Goals/Outcomes for Adoption**

The 2022 Countywide Hazard Mitigation Plan Update aims to produce the following strategic outcomes:

- Reduce loss of life and decrease property losses due to the occurrence of natural disasters within the planning area; and
- Provide the framework and coordination to encourage government, and both public and private sector organizations at all levels, to undertake mitigation to minimize potential disasters and to employ mitigation strategies in the recovery following disasters.

## **Benefits of Adoption**

Formal adoption and implementation of a federally approved hazard mitigation plan (HMP) presents many benefits to DeKalb County and the participating jurisdictions. Most notably, by identifying problems and possible solutions in advance of natural disasters, the planning area will be in a better position to obtain hazard mitigation funding from the Federal Emergency Management Agency (FEMA). This may include both pre- and post- disaster financial assistance.

Additionally, Approving jurisdictions are eligible applicants through the State for the following mitigation grant programs administered by the Federal Emergency Management Agency (FEMA):

- Hazard Mitigation Grant Program (HMGP)
- Flood Mitigation Assistance (FMA)
- Building Resilient Infrastructure and Communities (BRIC)

Please note that all funding requests will be evaluated individually according to the program's specific eligibility requirements.

## **Conclusion/Recommendation**

The DeKalb Office of Emergency Management respectfully requests that the City of Tucker Governing Body ACCEPTS this RECOMMENDATION for adoption of the updated 2022 DeKalb County Multi-Jurisdictional Hazard Mitigation Plan by



Resolution. By doing so, Tucker will be eligible to apply for grants through GEMA and FEMA to begin working to reduce and eliminate the long-term effects of disasters in our community.

The *Local Mitigation Planning Handbook* is a tool for local governments to use in developing or updating a local hazard mitigation plan. The purpose of the *Handbook* is the following:

1. To provide guidance to local governments on developing or updating hazard mitigation plans to meet the requirements of Title 44 Code of Federal Regulations (CFR) §201.6 for FEMA approval and eligibility to apply for FEMA Hazard Mitigation Assistance grant programs;<sup>1</sup> and
2. To offer practical approaches and examples for how communities can engage in effective planning to reduce long-term risk from natural hazards and disasters.

Local governments have the responsibility to protect the health, safety, and welfare of their citizens. Proactive mitigation policies and actions help reduce risk and create safer, more disaster-resilient communities. Mitigation is an investment in your community's future safety and sustainability. Consider the critical importance of mitigation to:

- Protect public safety and prevent loss of life and injury.
- Reduce harm to existing and future development.
- Prevent damage to a community's unique economic, cultural, and environmental assets.

Already been adopted by the County and the other 11 Incorporated City Governments.

WHEREAS the (local governing body) recognizes the threat that natural hazards pose to people and property within (local community); and

WHEREAS the (local community) has prepared a multi-hazard mitigation plan, hereby known as (title and date of mitigation plan) in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS (title and date of mitigation plan) identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in (local community) from the impacts of future hazards and disasters; and

WHEREAS adoption by the (local governing body) demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the (title and date of mitigation plan).

NOW THEREFORE, BE IT RESOLVED BY THE (LOCAL COMMUNITY), (STATE), THAT:

Section 1. In accordance with (local rule for adopting resolutions), the (local governing body) adopts the (title and date of mitigation plan).

ADOPTED by a vote of \_\_\_\_ in favor and \_\_\_\_ against, and \_\_\_\_ abstaining, this \_\_\_\_ day of

**Financial Impact:**

**STATE OF GEORGIA**

**CITY OF TUCKER**

**RESOLUTION R2023-11-22**

**A RESOLUTION OF THE CITY OF TUCKER ADOPTING  
THE DEKALB COUNTY HAZARD MITIGATION PLAN**

**WHEREAS** the Mayor and City Council recognizes the threat that natural hazards pose to people and property within the City of Tucker, Georgia; and

**WHEREAS** the City of Tucker, Georgia has prepared a multi-hazard mitigation plan, hereby known as the DeKalb County Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

**WHEREAS** the DeKalb County Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Tucker, Georgia from the impacts of future hazards and disasters; and

**WHEREAS** adoption by the Mayor and City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in the DeKalb County Hazard Mitigation Plan.

**NOW THEREFORE, BE IT RESOLVED BY THE CITY OF TUCKER, GEORGIA, THAT:**

Section 1. In accordance with Section 2.11(b) of the City Charter of the City of Tucker, the Mayor and City Council adopts the DeKalb County Hazard Mitigation Plan.

**ADOPTED** by a vote of \_\_\_\_ in favor and \_\_\_\_ against, and \_\_\_\_ abstaining, this 13<sup>th</sup> day of November, 2023.

By: \_\_\_\_\_  
Frank Auman, Mayor

ATTEST:

By: \_\_\_\_\_  
Bonnie Warne, City Clerk

APPROVED AS TO FORM:

By: \_\_\_\_\_  
Ted Baggett, City Attorney

[SEAL]



## 2022 Countywide Hazard Mitigation Plan Update

(Insert Month) (2022)

Encompassing Unincorporated DeKalb County, Georgia, and the Municipalities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain, Stonecrest and Tucker.



*Prepared and submitted by:*

BOLDplanning Inc.

A division of Agility Recovery Solutions

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### Executive Summary

The 2022 Countywide Hazard Mitigation Update was developed to 1) revise the previous hazard mitigation activities of Unincorporated DeKalb County, Georgia, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), and Stone Mountain (City), and 2) identify the hazard mitigation activities of new plan participants, Stonecrest (City) and Tucker (City), which together form the 'planning area.'

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- Reduce loss of life and decrease property losses due to the occurrence of natural disasters within the planning area; and
- Provide the framework and coordination to encourage government, and both public and private sector organizations at all levels, to undertake mitigation to minimize potential disasters and to employ mitigation strategies in the recovery following disasters.

Specifically, these strategic outcomes will be brought about through the following planning process:

- 1) Identify, describe, and characterize the hazards to which the planning area is susceptible; and
- 2) Assess the risk of each hazard, including probability, frequency, exposure, and vulnerability; and
- 3) Examine feasible mitigation opportunities appropriate for the identified hazards, and prioritize those opportunities; and
- 4) Implement mitigation actions to reduce loss of life and damage to property; and
- 5) Identify mitigation opportunities for long-term planning consideration.





### Glossary

ACS – American Community Survey  
ASCE – American Society of Civil Engineers  
BFE – Base Flood Elevation  
CDC – Centers for Disease Control and Prevention  
CRS – Community Rating System  
CUSEC – Central U.S. Earthquake Consortium  
CWPP – Community Wildfire Protection Plan  
DEMA – DeKalb County Emergency Management Agency  
DHS – Department of Homeland Security  
DMA 2000 – Disaster Mitigation Act of 2000  
EAP – Emergency Action Plan  
EOC – Emergency Operations Center  
EOP – Emergency Operations Plan  
FEMA – Federal Emergency Management Agency  
FIRM/DFIRM – Flood Insurance Rate Map/Digital Flood Insurance Rate Map  
FMA – Flood Mitigation Assistance (Grant Program)  
GEMA - Georgia Emergency Management and Homeland Security Agency  
GIS – Geographic Information System  
HAZUS – GIS System (FEMA)  
HMGP – Hazard Mitigation Grant Program  
HMP – Hazard Mitigation Plan  
HMPC – Hazard Mitigation Planning Committee  
ICS – Incident Command System  
LEPC – Local Emergency Planning Committee  
LEOP – Local Emergency Operations Plan  
MJHMP – Multijurisdictional Hazard Mitigation Plan  
NCEI – National Centers for Environmental Information  
NEIC –National Earthquake Information Center  
NFHL – National Flood Hazard Layer  
NFIP – National Flood Insurance Program  
NFA – National Fire Protection Association  
NOAA – National Oceanic and Atmospheric Administration  
NRCS – National Resources Conservation Service  
NWS – National Weather Service  
OES – Office of Emergency Services  
PDM – Pre-Disaster Mitigation (Grant Program)  
PDSI – Palmer Drought Severity Index  
POC – Point of Contact  
RL – Repetitive Loss  
SFHA – Special Flood Hazard Area  
SRL – Severe Repetitive Loss  
SSURGO – Soil Survey Geographic Database  
UAISI – Urban Area Security Initiative  
UDC – Unified Development Code  
USACE – U.S. Army Corps of Engineers  
USDA – U.S. Department of Agriculture  
USGS – U.S. Geological Survey  
WID – Watershed Improvement District  
WUI – Wildland Urban Interface



### Introduction to Mitigation

#### The Emergency Management Cycle & Mitigation

Understanding the emergency management cycle is the first step in effectively planning and operating in relation to all disaster-related activities. The emergency management cycle is an open-ended and ongoing process. The four phases in the process are mitigation, preparedness, response, and recovery. Each phase of the cycle can last for years, months, or only moments in duration, while different paths can exist simultaneously.



Mitigation planning is the process of determining how to reduce or eliminate loss of life and damage to property resulting from natural disasters. It is carried out as any sustained action to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation encourages long-term reduction of hazard vulnerability. As is the goal of emergency management, so is the goal of mitigation to save lives and reduce property damage.

#### ***The Disaster Mitigation Act of 2000 (DMA 2000)***

In the past, federal legislation has provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) became law on October 30, 2000, amending the Robert T. Stafford Disaster Relief and Emergency Assistance Act (the “Stafford Act”) (Public Law 93-288, as amended). Regulations for this activity can be found in Title 44 of the Code of Federal Regulations Part 206, Subpart M.

This legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. This act establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP).

Section 322 of the act specifically addresses mitigation planning at the state, local, and tribal levels. It identifies new requirements that allow HMGP funds to be used for mitigation planning activities and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities and identifiable gaps.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects. To implement the new DMA 2000 requirements, the Federal Emergency Management Agency (FEMA) prepared an interim final rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

On October 31, 2007, FEMA subsequently published an Interim Rule in the Federal Register, which ensures the Flood Mitigation Assistance (FMA) program planning requirements are consistent with the mitigation planning regulations as cited in the Code of Federal Regulations (CFR) at Title 44, Chapter 1, Part 201 (44CFR Part 201).

This interim rule established that local communities must comply with mitigation planning requirements to be eligible to apply for FEMA mitigation project grant funding, including FMA and FEMA's Severe Repetitive Loss (SRL) Program. Meeting the requirements of the regulations cited above ensures participating jurisdictions within the planning area will be eligible to receive disaster assistance, including hazard mitigation grants



## *INTRODUCTION TO MITIGATION*

available through the Robert T. Stafford Disaster Relief and Emergency Assistance Act, P.L. 93-288, as amended.

DeKalb County has the responsibility to coordinate activities relating to hazard evaluation and mitigation, and to prepare and submit to FEMA a local hazard mitigation plan, following the criteria established in 44 CFR 201.6 and Section 322 of the DMA 2000 (Public Law 106- 390).



### Section 1: Planning Process

#### 1.1 – Plan Introduction

The DeKalb County, Georgia (GA) – 2022 Countywide Hazard Mitigation Update involves 13 participants, 11 of which were included in the previous plan (2016) and two (2) of which are new. These consist of DeKalb County, i.e., unincorporated DeKalb County, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), and Stone Mountain (City), as well as Stonecrest (City) and Tucker (City), respectively. The cities of Stonecrest and Tucker were incorporated in 2016.

As mentioned in the Executive Summary, this plan update was prepared in partnership with the DeKalb County Emergency Management Agency (DEMA), the DeKalb County Mitigation Planning Committee (MPC), and Tennessee-based BOLDplanning Inc., a division of Agility (<https://www.agilityrecovery.com>). It supersedes the DeKalb County, GA – 2016 Countywide Hazard Mitigation Update and outlines a mitigation strategy for five (5) years following plan adoption.

#### 1.2 – Plan Development

##### 1.2.1 – Plan Revision Process

On September 25, 2021, the DeKalb County Emergency Management Agency (DEMA) applied for a Hazard Mitigation Grant Program (HMGP) grant under FEMA Project HMGP-DR 4400-18, Hurricane Michael. Once awarded, the county hired Tennessee-based BOLDplanning Inc. (BOLDplanning) to facilitate the plan update's development.

The plan revision process was initiated shortly thereafter, with an initial mitigation planning team established. Members were asked to seek out other interested parties for the formation of the DeKalb County Mitigation Planning Committee, or MPC. The MPC provided proper jurisdictional representation and actively participated in all aspects of the plan update's development. Details are provided in Section 1.2.3 – Participating Jurisdictions, MPC Contributions by Planning Phase.

A variety of planning events and activities, including meetings and conference calls, took place throughout the plan revision process. Most were conducted virtually via Zoom® due to the ongoing COVID-19 pandemic. If a committee member could not attend a meeting, they were contacted by phone, provided the specifics of the meeting, and asked to offer comments or suggestions. A summary of the major planning events and activities can be found in Section 1.3.3.

The public, as required by FEMA and the Sunshine Laws, was given multiple opportunities to ask questions, voice concerns, review plan drafts, and provide input toward the plan update's development. The public was also invited to provide feedback on hazard identification, hazard ranking, and mitigation project prioritization. These outreach efforts were accomplished through BOLDplanning's launching of two online surveys.

The first survey, the DeKalb County, GA Hazard Mitigation Plan Survey (<https://publicinput.com/S4057>), allowed for MPC members, plan stakeholders, and the public to provide input to hazards and potential hazard mitigation projects that are ongoing for the county. The second survey, the DeKalb County, GA Hazard Mitigation Plan – Open Comment Survey (<https://publicinput.com/I2514>) allowed all MPC members, plan stakeholders, and the public to provide feedback and input on the mitigation update prior to its submission to GEMA/HS and FEMA. Information specific to these efforts can be found Section 1.3 as well as Appendix C – Public Participation.

#### Planning Process

- Plan Introduction
- Plan Development
- Stakeholder Participation
- Community Involvement

#### Local Procedures & Resources

#### Planning Area

#### Hazard Risk Assessment

#### Mitigation Strategy



## SECTION 1: PLANNING PROCESS

In preparation for plan drafting, BOLDplanning reviewed DeKalb County's previous mitigation update (2016) and performed a gap analysis of policies, procedures, resources, etc. Additionally, the company reviewed the Georgia Hazard Mitigation Strategy, Standard and Enhanced Plan (Effective March 18, 2019 – March 17, 2024) and other state and local documents in relationship to mitigation planning. BOLDplanning also consulted with GEMA/HS staff (as needed) throughout the plan revision process.

All plan drafts were reviewed by the MPC and other plan stakeholders, including the public, and modifications were made as deemed necessary. The DeKalb County, GA – 2022 Countywide Hazard Mitigation Update was submitted to GEMA/HS and FEMA for review on **Date** and the final, approved plan was adopted by all participating jurisdictions with the signing of plan adoption resolution letters.

The MPC will monitor the mitigation update's progress over the course of the next five years and make modifications if deemed necessary. Additionally, DeKalb County will begin the process of preparing its next mitigation update (2027) in 2025.

### ***Plan Revision Process Summary***

- DEMA engaged BOLDplanning to provide staff support in facilitating the plan revision process and preparing the 2022 Countywide Hazard Mitigation Update.
- All jurisdictions participating in the plan update's development appointed a representative to service on the mitigation planning committee (MPC), along with DEMA, other stakeholders and BOLDplanning.
- Various planning events and activities ensured the MPC's understanding and agreement of the planning process, including organizing resources, assessing hazards, developing the plan update, implementing the plan update, and monitoring its progress over the next five (5) years.
- The public was given the opportunity to participate in the mitigation plan's development as required by FEMA and the Sunshine Laws.

### ***1.2.2 – What's New in this Mitigation Update?***

While certain elements of DeKalb County's previous mitigation plan (2016) have been retained, outdated information has been either revised or removed from the 2022 update. Particular emphasis was given to revising the list of critical facilities, updating the hazard risk assessment, determining the status of prior mitigation projects (2016), and identifying new mitigation projects, as explained below.

### ***What's New? Section 3 – Planning Area (Critical Facilities Summary)***

The DeKalb County MPC evaluated the list of critical facilities uploaded to the Georgia Mitigation Information System and used in the previous plan (2016). For mitigation planning purposes, this list is the basis for vulnerability assessments and loss estimates. DEMA staff updated the critical facilities list to produce the maps appearing in the 2022 mitigation update. The complete list can be found in Appendix C - Critical Facilities & Infrastructure.



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### What's New? Section 4 – Hazard Risk Assessment

The DeKalb County MPC evaluated the hazards identified in the previous mitigation update (2016) as well those included in the State of Georgia 2019 Hazard Mitigation Strategy, Standard and Enhanced Plan to properly determine which hazards to include/exclude in the 2022 Countywide Hazard Mitigation Update. A comparison of these plans, along with the MPC's final decisions, are provided in the table below.

Table 1: Summary of Hazards, 2022 Countywide Hazard Mitigation

Summary of Hazards, 2022 Countywide Hazard Mitigation Update			
Hazard	DeKalb County 2016 Countywide Hazard Mitigation Update	2019 Georgia Hazard Mitigation Strategy, Standard and Enhanced Plan	Final Decision to Include/Exclude in 2022 DeKalb County 2022 Hazard Mitigation Update
Coastal Hazards	Excluded	Included	Exclude – Not Applicable to Planning Area
Dam Failure	Included as Flood (Dam Breach)	Included	Include in Flooding – Reasonable Risk
Drought	Included	Included	Include – Disaster History
Earthquake	Included	Included	Include – Reasonable Risk
Extreme Heat	Included	Included	Include – Disaster History
Geologic Hazards	Excluded	Included	Exclude – No Reasonable Risk
Hurricane Wind	Included as Wind Hazards	Included	Include in Wind Hazards – Disaster History
Inland Flooding	Included as Flood	Included	Include in Flooding – Disaster History
Severe Weather	Included as Wind Hazards	Included	Include in Wind Hazards – Disaster History
Severe Winter Weather	Included as Winter Storm	Included	Include – Disaster History
Tornado	Included as Wind Hazards	Included	Include in Wind Hazards – Disaster History
Wildfire	Included	Included	Include
Wind	Included as Wind Hazards	Included	Include as Wind Hazards – Disaster History



### **What's New? Section 5 – Mitigation Strategy**

DeKalb County's 2016 Countywide Hazard Mitigation Update contained a risk assessment of identified hazards for the planning area along with a mitigation strategy to address the identified hazards' risk and vulnerability. Fittingly, many open discussions took place with the MPC and other plan stakeholders to update these sections of the plan for 2022. From these discussions came the identification of mitigation projects and goals for plan inclusion, which typically focus on strengthening critical facilities and infrastructure.

A Mitigation Strategy Update Meeting, facilitated by DEMA and BOLDplanning, provided the participating jurisdictions with information on how to offer additional insight related to the identified hazards, and subsequently the mitigation projects and goals. The DeKalb County mitigation planning points of contact (POCs) learned how BOLDplanning would assist them in providing input to update the mitigation projects from 2016 as well as how and when to offer any new/proposed projects to include in the 2022 update.

Following this meeting, representatives from BOLDplanning worked with DeKalb County and the participating jurisdictions to provide updates relevant to previous mitigation projects (2016), including their current status (completed, deferred, or carryover). The DeKalb County MPC was tasked with identifying any new mitigation projects for the 2022 update and entering them into the BOLDplanning.com platform, dubbed DeKalbReady.com.

All mitigation projects selected for the 2022 Countywide Hazard Mitigation Update, whether carried over or new, are based upon the potential to reduce risk to life and property with an emphasis on new and existing infrastructure, ease of implementation, community and agency support, consistency with local/jurisdictional plans and capabilities, available funding, vulnerability, and total risk.

The 2022 mitigation update includes 29 carryover projects from the 2016 plan as they are still relevant, in progress or ongoing. The 2022 mitigation update also includes 23 new projects. All were assessed using STAPLEE or a similar methodology to ensure the projects reflect current mitigation priorities. Details specific to these projects can be found in Section 5 - Mitigation Strategy.

*NOTE: As with previous mitigation updates (2011 and 2016), DeKalb County will continue to take a multijurisdictional approach to planning; thus, ensuring the mitigation goals and objectives of the county and the participating jurisdictions remain consistent.*

### **What's New? Section 5.5 – Planning Integration**

Mitigation does not end at plan approval. Plan approval is only the beginning. The successful implementation of any number of mitigation projects requires the coordination and collaboration of different local agencies, departments, and organizations. All have varying decision-making processes and authorities governing their actions. This mitigation update, once approved, must be integrated into their decision-making processes as a tool for improving their respective resiliencies.

DeKalb County's 2022 Countywide Hazard Mitigation Update is not only useful for implementing mitigation projects but also critical to development plans and capital improvement projects. The plan's risk assessment is of particular value as it can help prevent unmanaged and dangerous development in identified hazard areas such as floodplains.

Accordingly, DeKalb County intends to incorporate elements of the 2022 Countywide Hazard Mitigation Update into other planning documents. These may include the DeKalb County Emergency Operations Plan (EOP) and the DeKalb County Comprehensive Plan, among others. Likewise, the participating jurisdictions will integrate parts of the 2022 mitigation update into similar local plans.

### **1.3 – Stakeholder Participation**

The DeKalb County MPC is made up of stakeholders working together for the development and ongoing maintenance of this plan update. The participants are grouped into actively participating representatives from the participating jurisdictions within DeKalb County.





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- **Mitigation Planning Committee (MPC)** – This group consists of the jurisdictional representatives from the planning area, the Georgia Emergency Management Agency and Homeland Security (GEMA/HS), supporting state and federal agencies, and BOLDplanning.
- **Other Stakeholders** – This group consists of interested parties from the local community and a state university. This plan was developed with the support and input from various commercial interests.
- **Members from the General Public** – FEMA requires this planning effort to be open to constant input from interested citizens in compliance with the Sunshine Laws. In Georgia, public meetings must comply with the State's Open Meetings Act, unless established by statutory exemption. Therefore, any individual citizen who wishes to be involved in this effort to mitigate future disasters is encouraged to attend the MPC meetings and to solicit relevant comments to be included in the draft sections of the written plan.

### ***1.3.1 - Participating Jurisdictions, MPC Contributions by Planning Phase***

The following table provides information specific to the jurisdictions participating in the 2022 Countywide Hazard Mitigation Update, along with their MPC contributions by planning phase.





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Table 2: Participating Jurisdictions, MPC Contributions by Planning Phase

Participating Jurisdictions, MPC Contributions by Planning Phase				
Jurisdiction and Representative	Planning Process	Risk Assessment	Mitigation Strategy	Plan Maintenance
<b>DeKalb County</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>Led the Mitigation Planning Committee (MPC)</li> <li>Provided information on hazards, critical facilities, Points of Contact (POCs), etc.</li> <li>Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>Completed hazard history documentation</li> <li>Completed risk assessment questionnaire</li> <li>Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Provided mitigation project updates and actions history</li> <li>Proposed mitigation projects</li> <li>Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>Will lead in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>
<b>DeKalb County (Unincorporated)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>Provided administrative support for the MPC</li> <li>Provided information on hazards, critical facilities, POCs, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Completed hazard history documentation</li> <li>Completed risk assessment questionnaire</li> <li>Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Provided mitigation project updates and actions history</li> <li>Proposed mitigation projects</li> <li>Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>
<b>Avondale Estates (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>Participated in MPC</li> <li>Provided information on hazards, critical facilities, POCs, etc.</li> <li>Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>Completed hazard history documentation</li> <li>Completed risk assessment questionnaire</li> <li>Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Provided mitigation project updates and actions history</li> <li>Proposed mitigation projects</li> <li>Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>



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Participating Jurisdictions, MPC Contributions by Planning Phase				
Jurisdiction and Representative	Planning Process	Risk Assessment	Mitigation Strategy	Plan Maintenance
<b>Brookhaven (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>
<b>Chamblee (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>
<b>Clarkston (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>



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Participating Jurisdictions, MPC Contributions by Planning Phase				
Jurisdiction and Representative	Planning Process	Risk Assessment	Mitigation Strategy	Plan Maintenance
<b>Decatur (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>
<b>Doraville (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>
<b>Dunwoody (City)</b> Representative, Title (requested)	<ul style="list-style-type: none"><li>• Participated in MPC</li><li>• Provided information on hazards, critical facilities, POCs, etc.</li><li>• Served as primary POC for the jurisdiction</li></ul>	<ul style="list-style-type: none"><li>• Completed hazard history documentation</li><li>• Completed risk assessment questionnaire</li><li>• Reviewed risk assessment</li></ul>	<ul style="list-style-type: none"><li>• Provided mitigation project updates and actions history</li><li>• Proposed mitigation projects</li><li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li></ul>	<ul style="list-style-type: none"><li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li></ul>



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Participating Jurisdictions, MPC Contributions by Planning Phase				
Jurisdiction and Representative	Planning Process	Risk Assessment	Mitigation Strategy	Plan Maintenance
<b>Lithonia (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>• Participated in MPC</li> <li>• Provided information on hazards, critical facilities, POCs, etc.</li> <li>• Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>• Completed hazard history documentation</li> <li>• Completed risk assessment questionnaire</li> <li>• Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Provided mitigation project updates and actions history</li> <li>• Proposed mitigation projects</li> <li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>
<b>Pine Lake (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>• Participated in MPC</li> <li>• Provided information on hazards, critical facilities, POCs, etc.</li> <li>• Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>• Completed hazard history documentation</li> <li>• Completed risk assessment questionnaire</li> <li>• Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Provided mitigation project updates and actions history</li> <li>• Proposed mitigation projects</li> <li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>
<b>Stonecrest (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>• Participated in MPC</li> <li>• Provided information on hazards, critical facilities, POCs, etc.</li> <li>• Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>• Completed hazard history documentation</li> <li>• Completed risk assessment questionnaire</li> <li>• Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Provided mitigation project updates and actions history</li> <li>• Proposed mitigation projects</li> <li>• Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>• Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>



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Participating Jurisdictions, MPC Contributions by Planning Phase				
Jurisdiction and Representative	Planning Process	Risk Assessment	Mitigation Strategy	Plan Maintenance
<b>Stone Mountain (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>Participated in MPC</li> <li>Provided information on hazards, critical facilities, POCs, etc.</li> <li>Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>Completed hazard history documentation</li> <li>Completed risk assessment questionnaire</li> <li>Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Provided mitigation project updates and actions history</li> <li>Proposed mitigation projects</li> <li>Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>
<b>Tucker (City)</b> <b>Representative, Title</b> (requested)	<ul style="list-style-type: none"> <li>Participated in MPC</li> <li>Provided information on hazards, critical facilities, POCs, etc.</li> <li>Served as primary POC for the jurisdiction</li> </ul>	<ul style="list-style-type: none"> <li>Completed hazard history documentation</li> <li>Completed risk assessment questionnaire</li> <li>Reviewed risk assessment</li> </ul>	<ul style="list-style-type: none"> <li>Provided mitigation project updates and actions history</li> <li>Proposed mitigation projects</li> <li>Prioritized mitigation projects using STAPLEE (or similar) methodology</li> </ul>	<ul style="list-style-type: none"> <li>Will participate in the MPC as prescribed in Section 2 – Plan Maintenance</li> </ul>

### 1.3.2 – Other Plan Stakeholders

The following table details plan stakeholders outside the DeKalb County MPC. Among them are relevant government agencies (local, state, and federal) with the authority to regulate development, as well as any/all regional organizations. Also represented, if applicable, are the public, neighboring communities, academia, and private organizations.

Table 3: Other Plan Stakeholders, Involvement

Other Plan Stakeholders, Involvement			
Name	Organization	Position	Involvement
<b>Principal Plan Developers</b>			
Brittney Bond	BOLDplanning	Mitigation Planner	Organized planning schedule, meetings, and plan development process; plan writer and editor



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Other Plan Stakeholders, Involvement			
Name	Organization	Position	Involvement
Michael Amberson	BOLDplanning	Mitigation Planner	Researched and developed plan content
Karla O'Grady	BOLDplanning	Project Support	Provided additional support and input; coordinated kick-off meeting
Will Minkoff	BOLDplanning	Project Support, Plan Reviewer	Provided additional support and input; coordinated kick-off meeting; reviewed plan drafts
Kiana Freeman	BOLDplanning	Mitigation Planner	Final plan review and editing
<b>Local Governments</b>			
LaThaydra Sands	City of Lithonia	City Administrator	MPC Chair; represented jurisdiction, and provided additional support and input
Donovan Cushnie	DeKalb County Government, Department of Planning and Sustainability	Floodplain Coordinator	MPC Co-Chair; represented jurisdiction, and provided additional support and input
Courtney Frisch	City of Chamblee	Assistant Director of Public Works	MPC Administrative Support; represented jurisdiction, and provided additional support and input
Patrick Bailey	DeKalb County Medical Examiner	Director-Medical Examiner	Represented jurisdiction, and provided additional support and input
DC Ward	DeKalb Emergency Management	Deputy Director	Represented jurisdiction
Joseph Whelchel	DeKalb County Police Department (DKPD)	Police Officer	Represented jurisdiction, and provided additional support and input
Paul Hanebuth	City of Avondale Estates - Avondale	Asst. City Manager	Represented jurisdiction
Philemon Harrington	DeKalb County Police Department (DKPD)	Detective	Represented jurisdiction, and provided additional support and input
ChaQuias Miller-Thornton	City of Stone Mountain	City Manager	Represented jurisdiction



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Other Plan Stakeholders, Involvement			
Name	Organization	Position	Involvement
Yolanda Harkley	DeKalb County Emergency Management (DEMA)	Emergency Manager	Represented jurisdiction, and provided additional support and input
Kristopher Matson	Children's Healthcare of Atlanta	Emergency Manager	Represented jurisdiction, and provided additional support and input
Jim Tavenner	City of Stone Mountain Public Works Department	Director	Represented jurisdiction, and provided additional support and input
J Walker	DeKalb County Police Department (DKPD)	Sergeant	Provided additional support and input
Carl Thomas	City of Dunwoody	Stormwater Utility Manager	Represented jurisdiction
Chief J.K. Cox	DeKalb County Emergency Management Agency (DEMA)	Director	Provided additional support and input
William Voorhies	DeKalb County Fire Rescue	Deputy Chief of Planning and Risk Reduction	Represented jurisdiction
Matthew Murrery	Brookhaven Police Department	EMA Team Lead	Represented jurisdiction, and provided additional support and input
Gerald Selby	Community Member	Community	Represented jurisdiction, and provided additional support and input
Toni Washington	City of Decatur	Fire Chief/Emergency Manager	Represented jurisdiction
Adam Wade	DeKalb County Police Department (DKPD)	Detective	Represented jurisdiction, and provided additional support and input
Robin Pitts	Citizen	Mother	Represented jurisdiction
Akin Akinsola	DeKalb Roads and Drainage	Floodplain Management Supervisor	Represented jurisdiction
Alesia Guest	DeKalb County E-911 Communications Center	E-911 Deputy Director	Represented jurisdiction
<b>Regional Organizations</b>			



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Other Plan Stakeholders, Involvement			
Name	Organization	Position	Involvement
<b>State Agencies</b>			
Lucy Herring	Georgia Emergency Management and Homeland Security (GEMA/HS)	Hazard Mitigation Planning Specialist	Represented agency, and provided additional support and input
<b>Federal Agencies</b>			
Plan Reviewer(s)	Federal Emergency Management Agency (FEMA)	Designated Plan Reviewers, FEMA Region 4	Reviewed and approved plan
<b>Academia &amp; Private Organizations</b>			



### 1.3.3 – Planning Meetings and Activities

As expected, much time and effort went into the development of the DeKalb County, GA - 2022 Countywide Hazard Mitigation Update. Following is a synopsis of the major, public, and private, mitigation planning meetings and other plan-related activities that took place throughout the plan development process. Proof of the meetings, sign-in sheets, public notification documentation, etc. can be found in Appendix C – Public Participation.

**Hazard Mitigation Plan Update Kick-Off and Public Information Meeting, October 7, 2021** – Hosted by BOLDplanning and conducted remotely using Zoom® web conferencing due to ongoing COVID-19 concerns, this meeting was open to DEMA, the MPC, and the public. Prior to the meeting, a public announcement ran for two weeks on DEMA’s Next Door social media page and DeKalb County’s Facebook page. During the meeting, everyone was encouraged to ask questions, voice concerns, and provide input to the mitigation plan update. Of the 48 people in attendance, one (1) was from the public. BOLDplanning worked with the MPC to collect contact information, hazard history, facility information, and other pertinent jurisdictional information. Documentation pertaining to this meeting is in Appendix C – Public Participation.

*Image 1: Screenshot, Kick-off and Public Information Meeting, October 7, 2021*



*Image Source: BOLDplanning*

**Hazard Mitigation Plan, Mitigation Strategy Update Meeting, October 6, 2021** – DEMA hosted a mitigation strategy update meeting for the MPC and plan stakeholders to gain additional insight into the county’s hazards and determine how best to represent the jurisdictions during the plan update’s development. Participants learned about the BOLDplanning process for updating previously identified mitigation projects (2016) and were encouraged to ask questions and express any/all concerns. The meeting took place virtually through Zoom® web conferencing due to ongoing COVID-19 concerns. It was attended by 27 stakeholders; the public was not invited given the topic(s) of discussion. Documentation pertaining to this meeting is in Appendix C – Public Participation.

**Hazard Mitigation Plan Update, Public Review Period, TBD** – Prior to the Public Review Period, a public announcement ran for **x weeks in XXX** and for x weeks in the **XXX**. DeKalb County also utilized social media by posting the public announcement on the county’s Facebook page for **x** days. Additionally, DEMA publicized the Public Review Period on their website for the duration of the period (14 days). Due to the COVID-19 pandemic and DeKalb County government reopening with operations modified for COVID-19 Safe Practices, MPC members and the public were asked to review a draft copy of the updated plan online (available on DEMA’s website) before asking questions or expressing concerns. The MPC, plan stakeholders, and the public



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provided feedback for the plan draft using an online survey tool, i.e., Public Input. Documentation pertaining to the Public Review Period is in Appendix C – Public Participation.

**Hazard Mitigation Plan Update, Final Review Meeting, Date TBD** – The updated DeKalb County mitigation plan was reviewed by the MPC and other stakeholders, as requested, prior to its submission to the Georgia Emergency Management Agency (GEMA). However, due to the ongoing COVID-19 pandemic, the Final Review Meeting was not conducted in person. Rather, DEMA emailed the MPC and plan stakeholders, requesting final plan review and final comments via email reply.

**Hazard Mitigation Plan Update, Plan Adoption Signing, Date TBD** – Upon plan approval, adoption letters pertaining to the 2022 Countywide Hazard Mitigation Update were disseminated and signed by the 13 plan participants: Unincorporated DeKalb County, Georgia, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), Stonecrest (City), Stone Mountain (City), and Tucker (City). The signing of these resolution letters codifies the plan update's adoption.

Additional planning efforts included meetings with representation from other jurisdictions and the public at large. Planning events also included conference calls

### 1.4 – Community Involvement

The Dekalb County MPC provided the opportunity for neighboring communities, agencies, businesses, academia, non-profits, and other interested parties to be involved in the mitigation planning process. The public was notified of open meetings via Dekalb County's website, and local newspapers. BOLDplanning and DEMA invited all non-covered jurisdictions, including school districts and others with expiring mitigation plans, to participate in the plan update. Any jurisdiction or school district not covered in the 2022 Countywide Hazard Mitigation Update is either covered under another plan or declined to participate.

Local and regional agencies and the representatives of participating jurisdictions, including mayors, public officials, police/fire/EMS, GIS, planning, building, and zoning, and others, were notified of MPC meetings via email and phone. Emergency managers from neighboring Georgia counties, Gwinnett, Rockdale, Henry, Clayton, and Fulton, were personally invited to attend the kick-off and public draft review meeting.

For two weeks prior to each public meeting, an announcement appeared on DEMA's website (<https://www.dekalbcountyga.gov/>). For documentation, see Appendix C – Public Participation.

At the first public planning (virtual) meeting, attendees ranked and identified hazards, aided in the creation of a community profile, prioritized mitigation projects, and completed a risk assessment questionnaire. During this meeting, and the latter public review meeting, citizens and other parties were invited to review the most current draft, provide any input of feedback, and ask any relevant questions of the Dekalb County MPC and BOLDplanning.

Due to the COVID-19 pandemic and government reopening/COVID-19 Safe Practices for Dekalb County and the participating jurisdictions, the Public Review Period of the plan draft, as previously stated, was held virtually. MPC members and the public were invited to review a draft copy of the Dekalb County HMP (update) posted to DEMA's website (<https://www.dekalbcountyga.gov/dema/dekalb-emergency-management-agency>) before asking questions or voicing concerns. The MPC, stakeholders, and the public provided feedback and input on the plan draft by completing a feedback questionnaire (<https://publicinput.com/12514>).

Relevant federal, regional, state, and local governments as well as any private and non-profit organizations were invited to provide input and technical expertise. The entities, who volunteered, either in person or by providing hazard data, are listed in the following table.



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Table 4: Partner Involvement by Entity

Partner Involvement by Entity		
Entity Classification	Entity	Entity Input
<b>Federal Agencies</b>	Environmental Protection Agency (EPA), National Parks, National Oceanic and Atmospheric Administration/ National Centers for Environmental Information (NOAA/NCEI), American Society of Civil Engineers (ASCE), Army Corp of Engineers, United States Department of Agriculture (USDA), FEMA, Natural Resources Conservation Service (NRCS), National Inventory of Dams, United States Geological Survey (USGS), National Weather Service (NWS), U.S. Census Bureau	Provided census data, weather data, dam data, land use data, and geological data
<b>State Agencies</b>	GEMA, Georgia Bureau of Investigation (GBI), Georgia Department of Transportation (GDOT), Georgia Environmental Protection Division, Georgia Forestry Commission, State Courts	Provided oversight and technical assistance; provided hazard records; provided hazard data
<b>Local Governments</b>	DeKalb County Emergency Management Agency (DEMA); Dekalb County Planning and Zoning Division, Participating Municipalities (Cities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stonecrest, Stone Mountain, and Tucker), Dekalb County School District, Dekalb County Water System	Provided input as MPC members / principal subjects; Provided input – GIS (maps); Provided input – public school map; provided input from various interests
<b>Private Organizations</b>	BOLDplanning, Dekalb County-Marietta Water Authority; Metropolitan North Georgia Water Planning District; Central United States Earthquake Consortium	Directed planning effort as principal planners; provided input from various interests; provided hazard data
<b>Academia</b>	University of Georgia Information Technology Outreach Services (ITOS)	Provided input – Hazus report



## SECTION 2: LOCAL PROCEDURES & RESOURCES

### Section 2: Local Procedures & Resources

#### 2.1 – Available Resources

##### 2.1.1 – Documentation Resources

The DeKalb County MPC conducted a comprehensive review of DeKalb County and the cities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stonecrest, Stone Mountain, and Tucker, to determine the availability of existing emergency management and preparedness information for mitigation planning purposes. Following is a synopsis of their findings.

#### Planning Process

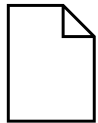
#### Local Procedures & Resources

- Available Resources
- Continued Public Involvement
- Plan Maintenance Process

#### Planning Area

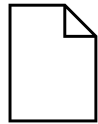
#### Hazard Risk Assessment

#### Mitigation Strategy



##### ***DeKalb County, GA – 2016 Countywide Hazard Mitigation Update***

DeKalb County and the cities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, and Stone Mountain, are currently covered by this plan. The cities of Stonecrest and Tucker were not incorporated until 2016 and thus, considered part of unincorporated DeKalb at the time of the plan's development and adoption.



##### ***Georgia Hazard Mitigation Strategy, Standard and Enhanced Plan, March 18, 2019 - March 17, 2024***

The Georgia Hazard Mitigation Strategy (GHMS) is a result of the state's continued efforts to reduce its exposure to losses from natural hazards, and to maintain eligibility for the full range of disaster assistance available under the Robert T. Stafford Disaster Relief and Emergency Assistance Act as amended by the Disaster Mitigation Act of 2000 (DMA 2000). The Enhanced Plan documents the state's commitment to the objectives of hazard mitigation. This designation recognizes Georgia as a proactive leader in implementing a comprehensive statewide program. The 'enhanced' status acknowledges the extra effort the state has made to reduce losses, protect resources, and create safer communities.



##### ***DeKalb County Critical Facilities List***

The DeKalb County MPC assessed the list of critical facilities uploaded to the Georgia Mitigation Information System. The list was used throughout the development of the 2022 mitigation update and is the basis for the vulnerability assessments and loss estimates. The complete list is available in Appendix C – Critical Facilities & Infrastructure.



##### ***DeKalb County Continuity of Operations (COOP) Plan***

Developed by DEMA using the BOLDplanning.com platform and a 'best practices' methodology, this 'living document' helps ensure the agency can continue to perform mission-essential functions during a wide range of emergencies.

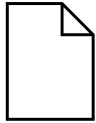


##### ***DeKalb County Local Emergency Operations Plan (LEOP)***

Developed by DEMA using the BOLDplanning.com platform and a 'best practices' methodology, this 'living document' describes the management and coordination of resources and personnel during periods of major emergency.



## SECTION 2: LOCAL PROCEDURES & RESOURCES



### ***DeKalb County Comprehensive Plan, DeKalb County 2050 Unified Plan***

The DeKalb County 2050 Unified Plan combines two of the county's long-range plans into one: a Comprehensive Transportation Plan that identifies priority transportation projects and policy recommendations, and a Comprehensive Land Use Plan that establishes the framework for future growth and development. Transportation and land use investments have a direct impact on one another, so the combined plan creates a more consistent and unified strategy. The combined plan addresses housing, health and wellness, public safety, arts and culture, sustainability, retail, and annexation.



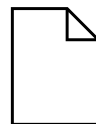
### ***City of Avondale Estates Comprehensive Plan Update (2021)***

This plan presents a vision for progress and provide a framework for the execution of that vision. It is aimed at guiding the city on investment planning and organization to promote quality of life for citizens by provision of adequate infrastructure and amenities.



### ***City of Brookhaven Comprehensive Plan Update (2019)***

This plan (update) affirms the city's 'big picture' vision, defines goals, and lays out a task list for city leaders, staff, and citizens to address issues as well as position the city to be a leader within the Metro-Atlanta area. It includes updated policies, data, and a new work program.



### ***City of Chamblee Comprehensive Plan 2034***

Adopted in 2016, this plan is a 20-year policy guide that assesses current conditions, projects future trends, develops strategies and goals, and creates a work program to achieve these goals. The plan, as required by the Georgia Planning Act, includes the following elements: Community Goals, Needs and Opportunities, Community Work Program, Land Use, Housing, and Transportation.



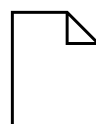
### ***City of Clarkston Comprehensive Plan 2040***

This plan updates the previous plan (2006) while building off the momentum of recent development.



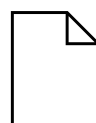
### ***City of Decatur Comprehensive Plan***

This plan serves as a guide for making rezoning and capital investment decisions by city officials and staff. It also provides the Decatur community a snapshot of where it is today and wants to be tomorrow (through the year 2040).



### ***City of Dunwoody Comprehensive Plan***

This plan assists decision-making and administrative actions in an effort to guide the City of Dunwoody toward the community's preferred future. Subsequent to the original Comprehensive Plan's adoption, the city has also adopted the Comprehensive Transportation Plan, Parks and Recreation Master Plan, Dunwoody Village Master Plan, and Georgetown/North Shallowford Mast Plan as addenda, demonstrating the city's continued commitment and efforts to establish an encompassing guiding policy document.



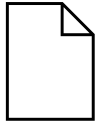
### ***City of Lithonia 2020 Comprehensive Plan Update***

Lithonia is one of DeKalb County's smallest cities, both in population and geography. Citizens appreciate the quality of life offered in the community, while simultaneously advocating for increased opportunities for economic and community development. Creating new opportunities while preserving the existing quality of life will achieve the balance the community is looking for in attaining the vision set out in this Comprehensive Plan.



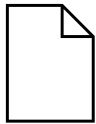


## SECTION 2: LOCAL PROCEDURES & RESOURCES



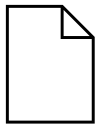
### ***City of Pine Lake Comprehensive Plan***

Pine Lake is DeKalb County's smallest city, both in population and geography. Thus, it is a strongly connected community where individuals are valued. It elevates the arts, the environment, and civic participation. To sustain these values, Pine Lake will plan growth and maintain the environment, while improving services, city finances, and the quality of life for residents. Adopted October 12, 2021, this plan demonstrates the city's resiliency for over 75 years and supports its vision for the future.



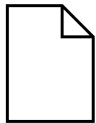
### ***City of Stonecrest Comprehensive Plan***

The City of Stonecrest is one of DeKalb County's newest cities; it was incorporated in 2016. The city's Comprehensive Plan sets the vision, mission, policies, and goals. It is the guide that current and future administrations will use for future development and growth.



### ***City of Stone Mountain Comprehensive Plan 2021***

As an update to the City of Stone Mountain's previous Comprehensive Plan (2016), this plan builds upon well-established vision, goals, and policies. It incorporates recent planning efforts from the last five years, current trends and data, and new community input, and includes a new work program to define the city's path for the future.



### ***City of Tucker Comprehensive Plan***

Tucker is one of DeKalb County's two newest cities; it was incorporated in 2016. The city's Comprehensive Plan expresses the community's aspirations and goals for the future, while articulating a corresponding set of policies and recommendations to guide future decisions regarding land use, development, and capital improvements.

## ***Other Planning Documents***

### ***Dekalb County, Georgia Flood Insurance Study***

The Dekalb County Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in this specific geographic area. This FIS aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations (CFR) at 44 CFR, 60.3.

### ***Hazard Risk Analyses Supplement to the Dekalb County Joint Hazard Mitigation Plan***

In 2020, the Georgia Department of Emergency Management partnered with the Carl Vinson Institute of Government at the University of Georgia to develop a detailed risk assessment focused on defining hurricane, riverine flood, and tornado risks in Dekalb County. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets.

### ***Georgia Safe Dams Programs***

Pursuant to the Georgia Safe Dams Act, O.C.G.A. Secs. 12-5-370 et seq., the Safe Dams Program (<https://epd.georgia.gov/watershed-protection-branch/safe-dams-program>), is responsible for developing and maintaining an inventory of dams, classifying dams, and ensuring compliance of all regulated dams. The Dam Diagram and Inventory of Dams information is included in the Dam Failure hazard identified within this HMP update.



## SECTION 2: LOCAL PROCEDURES & RESOURCES

### ***DeKalb County Planning Documents***

DeKalb County's participating jurisdictions provided a host of planning, zoning, and development-related documents. These documents were reviewed, assessed, and cataloged to compile Section 5.1 – Mitigation Capabilities as well as Section 5.5 - Planning Integration of this HMP update.

### ***2.1.2 – Fiscal Resources***

The DeKalb County MPC assessed all available funding options for hazard mitigation planning purposes. Following is a list of federal, state, and local funding sources that are either available or relevant to the 2022 Countywide Hazard Mitigation Update.

#### ***Flood Mitigation Assistance Program (FMA)***

The FMA program is designed to aid in the buyout of repetitive loss (RL) and severe repetitive loss (SRL) properties as well as assist in the funding of flood mitigation projects and activities.

#### ***Fire Prevention & Safety Grants (FP&S)***

These grants are administered by FEMA to enhance safety of the public and firefighters from fire and fire-related hazards. The primary goal is to target high-risk populations and reduce injury. Fire departments, local governments, and recognized community organizations are eligible to receive this funding.

#### ***Hazard Mitigation Grant Program (HMGP)***

The Hazard Mitigation Grant Program (HMGP) is managed by FEMA and administered GEMA. DeKalb County does not have any HMGP funds available for mitigation planning.

#### ***Local Revenues & Budgets***

Recognizing the importance of hazard mitigation planning, DeKalb County and the participating jurisdictions have self-funded the 25% match required by FEMA's PDM grant.

#### ***Pre-Disaster Mitigation Grant Program (PDM)***

PDM, which is managed by FEMA, is a nationally competitive grant program. The development of this mitigation update was funded by a PDM grant at a 75% match.

### ***2.1.3 – Technical Resources***

The DeKalb County MPC employed a variety of technical resources in this plan's development. These technical resources were instrumental in completing an accurate vulnerability and risk assessment.

#### ***BOLDplanning (now a division of Agility, <https://www.agilityrecovery.com>)***

Over 17 years in business, and as the principal plan writer, BOLDplanning has helped state and local agencies across the country create more than 10,000 Hazard Mitigation Plans (HMPs), Continuity of Operations Plans (COOPs), Emergency Operations Plans (EOPs), and Local Emergency Operations Plans (LEOPs). The company offers clients a unique combination of expert consulting and a world-class online software solution, the BOLDplanning.com platform, that together make the planning process easier, more efficient, and more effective.

Company capabilities also include project management, stakeholder engagement, GIS (mapping), and Homeland Security Exercise and Evaluation (HSEEP)-based exercises.

Throughout the course of developing the DeKalb County, GA - 2022 Countywide Hazard Mitigation Update, the BOLDplanning.com platform (shown below) was used to capture key data and keep the project on schedule. The platform, dubbed DeKalbReady.com, will remain available for plan maintenance and project tracking, as well as integrating additional plans, including DeKalb County's Continuity of Operations (COOP) Plan and Emergency Operations Plan (EOP), if desired.



## SECTION 2: LOCAL PROCEDURES & RESOURCES

Image 2: Screenshot, DeKalb Ready.com

Image Source: BOLDplanning

*NOTE: BOLDplanning has a 100% FEMA approval rate for well over 50 state, local and tribal mitigation plans since 2004, including numerous first-submission approvals.*

### **ESRI ArcGIS v10**

Most, if not all, of the maps within this plan (including the Hazus models), were developed using ESRI's ArcGIS v10.

### **FEMA Digital Flood Insurance Rate Map (DFIRM), National Flood Hazard Layer (NFHL)**

FEMA's NFHL data was instrumental in mapping floodplain locations and estimating potential flood impacts and loss estimates for this mitigation update.

### **National Oceanic and Atmospheric Administration, National Centers for Environmental Information (NOAA/NCEI)**

NOAA/NCEI's Storm Events Database was the primary source of weather-related historical data for this mitigation update.

### **U.S. Army Corps of Engineers (USACE)**

Data from USACE's National Inventory of Dams was instrumental in determining the location of high-hazard dams in the planning area and assessing the hazard level.

## **2.2 – Continued Public Involvement**

DeKalb County is dedicated to involving the public in the continual shaping of its mitigation plan and the development of its mitigation projects and activities.

The DeKalb County MPC will continue to keep the public informed about its hazard mitigation projects and activities through DEMA's website. Additionally, it will provide a "comments/suggestions" option for the public to submit input through the website.

The public will also be invited to participate in annual MPC meetings to review and discuss the mitigation-related events of the past year.

DeKalb County used a public input website to collect data from local plan stakeholders during the hazard mitigation planning process. All collected data was used to create a local hazard profile and provide insight on





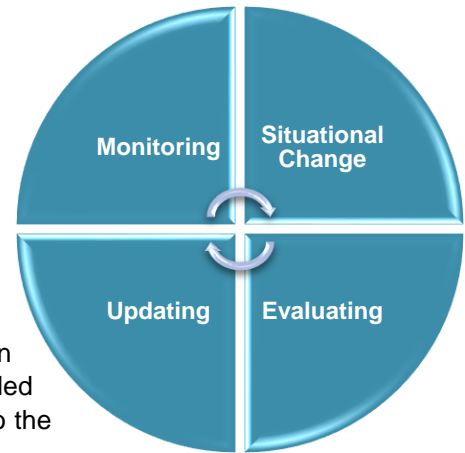
## SECTION 2: LOCAL PROCEDURES & RESOURCES

the public's concerns. A public input site will continue be used as needed to track the status of previous hazard mitigation actions and elicit feedback for future hazard mitigation actions.

Copies of the 2022 Countywide Hazard Mitigation Update will be available online through DEMA's website and the participating jurisdictions.

### 2.3 – Plan Maintenance Process

The DeKalb County MPC has developed a method to ensure monitoring, evaluation, and updating of its 2022 Countywide Mitigation Update. Upon adoption of the plan, DEMA will utilize the MPC to provide plan updates, revisions, and data collection for future mitigation planning purposes. The MPC Chair will form a subcommittee comprised of the DEMA director and jurisdictional representatives from the MPC, to analyze the proposed mitigation projects. The Chair of the subcommittee will be determined by a vote in the subcommittee. Additional subcommittee members may be added based on necessity. The subcommittee will submit a quarterly report to the MPC, which in turn, will submit an annual report to DEMA.



DEMA may request a non-scheduled report on the monitoring, evaluation, or updating of any portion of this plan due to irregular progress on mitigation actions and or projects, in the aftermath of a hazard event, or for any reason deemed appropriate.

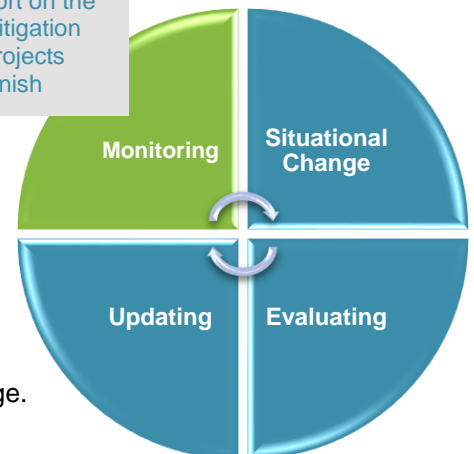
*NOTE: Hazard mitigation plans are required to be updated every five (5) years per FEMA. DeKalb County will meet this requirement by starting the planning process three (3) years after this plan is formally adopted.*

#### 2.3.1 – Plan Monitoring & Situational Change

Plan monitoring can be defined as the ongoing process by which stakeholders obtain regular feedback on the progress being made towards achieving their goals and objectives. In the more limited approach, monitoring may focus on tracking projects and the use of the agency's resources. In the broader approach, monitoring also involves tracking strategies and actions being taken by partners and non-partners, and figuring out what new strategies and actions need to be taken to ensure progress towards the most important results.

A monitoring report will be written and submitted for review to the MPC and after the annual MPC meeting, or when triggered by situational change. The monitoring report answers the questions on the following page.

Regularly report on the progress of mitigation actions and projects from start to finish





## SECTION 2: LOCAL PROCEDURES & RESOURCES

- ✓ *Is the mitigation project under, over, or on budget?*
- ✓ *Is the mitigation project behind, ahead of, or on schedule?*
- ✓ *Are there any changes in DeKalb County's capabilities which impact the hazard mitigation plan?*
- ✓ *Are there any changes in DeKalb County's hazard risk?*
- ✓ *Has the mitigation action been initiated, or its initiation planned?*
- ✓ *If applicable, has participation in a mitigation action's collaboration been regular?*
- ✓ *If any, what plan updates occurred, why did they occur, and what is their impact?*



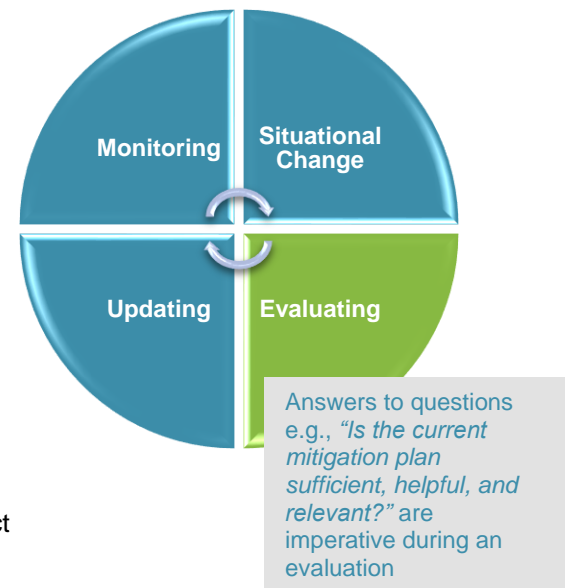
The plan maintenance process is cyclical and maintenance items can operate simultaneously within the process.

### 2.3.2 – Plan Evaluating

A plan evaluation is a rigorous and independent assessment of either completed or ongoing activities to determine the extent to which they are achieving stated objectives and contributing to decision making.

An evaluation report will be written and submitted to DeKalb County's MPC when the situation dictates. The following situations are typical examples of when an evaluation will be necessary.

- Post hazard event
- Post training exercise
- Post tabletop or drill exercise
- Significant change or completion of a mitigation project
- Significant change or completion of a mitigation action



An evaluation report will ask the following questions in response to the previously listed events.

- ✓ *Do the mitigation objectives and goals continue to address the current hazards?*
- ✓ *Are there new or previously unforeseen hazards?*
- ✓ *Are current resources appropriate for implementing a mitigation project?*
- ✓ *Was the outcome of a mitigation action/project expected?*
- ✓ *Are there implementation problems?*
- ✓ *Are there coordination problems?*



## SECTION 2: LOCAL PROCEDURES & RESOURCES

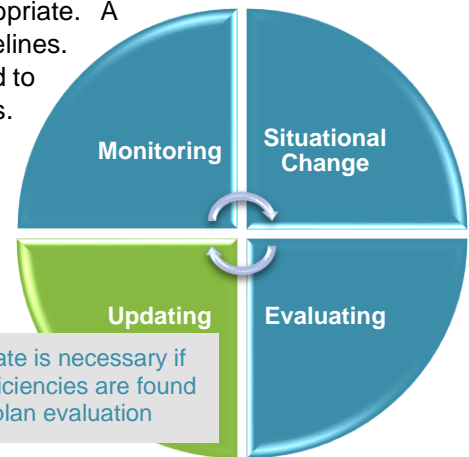
### 2.3.3 – Plan Updating

Typically, the updating of a hazard mitigation plan is initiated upon the completion of a plan evaluation and even then, only when the evaluation determines an update is appropriate. A plan update also occurs every five (5) years per FEMA guidelines. Additionally, when new hazard data becomes available, it will be added to the plan. New data will be confirmed or denied at future MPC meetings.

For whatever reason, a plan update can be written anytime it is deemed necessary by the DEMA.

To ease this process, DeKalb County will continue to use the online platform, DeKalbReady.com. The website, as previously mentioned, serves as a repository for information specific to hazard mitigation and increases collaboration between plan stakeholders. Users can

track the plan's progress in real time and document their concerns.



According to FEMA/DMA 2000 guidelines for mitigation planning, DeKalb County will begin the process of updating its plan three (3) years from its formal adoption. It will do so under the direction of the county's EMA Director. DEMA will coordinate and facilitate a bi-annual meeting within the five-year cycle with stakeholders from the participating jurisdictions to gather relevant information needed for the next plan update. These meetings will ensure that status is known for the projects and goals identified in the mitigation strategy are up to date (as required by FEMA), in the next, five-year plan update (2027).



## SECTION 2: LOCAL PROCEDURES & RESOURCES

### 2.3.4 – Evaluation Report

#### DeKalb County Mitigation Planning Committee DeKalb County Hazard Mitigation Plan Evaluation Report

Hazard Mitigation Plan Sub-Committee Chair: \_\_\_\_\_

Meeting Date: \_\_\_\_\_

Plan Approval Date: \_\_\_\_\_

Plan Expiration Date: \_\_\_\_\_

Have there been any disasters or training event since the last report? If so, list them below:

Disaster Number/ Training Event	Hazard Type(s)	Was the hazard expected or unforeseen?	Is a plan update required?
<i>Example: DR-1000</i>	<i>Tornado</i>	<i>Unforeseen</i>	<i>Yes</i>
<i>Example: Annual Training</i>	<i>Flash Flooding</i>	<i>Expected</i>	<i>No</i>

#### Mitigation Projects:

Mitigation Project	Participating Jurisdiction(s)	Proposed/Scheduled/In Progress/Completed	Behind/Ahead/On- Schedule	Estimated Completion Date
<i>Example: Tornado Safe Room</i>	<i>Anytown</i>	<i>In Progress</i>	<i>On-Schedule</i>	<i>1/1/2022</i>

#### Public Engagement and Outreach Notes:

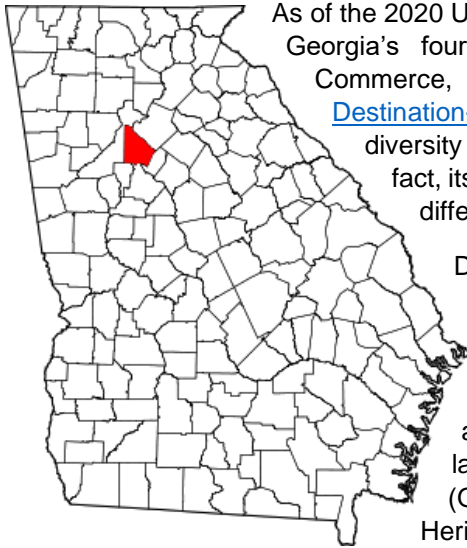
#### Miscellaneous Notes:



### Section 3: Planning Area

DeKalb County, one of 159 counties in the State of Georgia, was created in 1822 from Henry, Gwinnett, and Fayette Counties. It is located in the north central portion of the state and situated on a natural ridge that runs between Atlanta and Athens, aka the Continental Divide. The county encompasses 267.7 square miles of land area, making it the 113<sup>th</sup> largest county in Georgia by total area.

Today, DeKalb County is included in the Atlanta-Sandy Springs-Roswell, Georgia Metropolitan Statistical Area, aka Metro Atlanta area. It contains roughly 10% of the City of Atlanta, of which the other 90% lies within nearby Fulton County. Adjacent to DeKalb County are Gwinnett County (north), Rockdale County (east), Henry County (south), Clayton County (southwest), and Fulton County (west).



As of the 2020 U.S. Census, DeKalb County had a population of 764,382, making it Georgia's fourth-most populous county. The DeKalb County Chamber of Commerce, <https://www.dekalbchamber.org/wp-content/uploads/2019/09/Destination-DeKalb-County-GA-2018-6-26-18.pdf>, credits the county's diversity for its continued growth and international appeal over the years. In fact, its numerous businesses and residences presently represent over 30 different countries and speak at least 200 languages.

DeKalb County is located only minutes from the Hartsfield-Jackson Atlanta International Airport (the second busiest airport in the world) and is the site of the former Naval Air Station Atlanta. It is home to nine colleges and other postsecondary institutions, including Emory University, Georgia State University, and Mercer University, as well as the Centers for Disease Control (CDC). Notable landmarks of DeKalb County include Stone Mountain Park (Georgia's most-visited attraction) and the Arabia Mountain National Heritage Area.

For mitigation planning purposes, the planning area for this HMP update includes unincorporated DeKalb County, and the cities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur (the county seat), Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain, Stonecrest, and Tucker.

*NOTE: The cities of Stonecrest and Tucker did not participate in the previous plan update as they were incorporated after its adoption in 2016.*

#### Employment & Economy

U.S. Census data (2019) indicates the presence of 17,293 employer establishments in DeKalb County. The county's diverse industry base includes manufacturing, retail, construction, trade, finance, engineering, healthcare, and management. Large employers include AT&T Mobility and Emory Healthcare (Atlanta Regional Commission, <https://atlantaregional.org/atlanta-region/county-profiles/dekalb-county/>).

DeKalb County's unemployment rate, 4.8% (December 2021) is generally less than the national average, 6.0% (December 2021) and future job growth, i.e., over the next ten years, is predicted to be 44.7%, which is higher than the U.S. average of 33.5% (<https://www.bestplaces.net/economy/county/georgia/dekalb>). The county has seen the job market increase by 2.9% over the last year (2020-2021) alone.

The median household income is \$62,399 (2019 dollars), which is above the State of Georgia's average of \$61,980 (U.S. Census 2020).

#### Planning Process

#### Local Procedures & Resources

#### Planning Area

- Demographics & Topography
- Land Use & Development Trends
- Floodplain Management & National Flood Insurance Program (NFIP) Participation
- Critical Facilities & Infrastructure

#### Hazard Risk Assessment

#### Mitigation Strategy



## SECTION 3: PLANNING AREA

### Housing

According to the U.S. Census (2020), there are 289,829 households in DeKalb County. A household includes all the people who occupy a housing unit as their usual residence. There are also 326,101 housing units in the county. A housing unit is a house, apartment, mobile home or trailer, a group of rooms, or a single room occupied as separate living quarters (or if vacant, intended for occupancy as separate living quarters).

Table 5: Population Summary, DeKalb County

Population Summary, DeKalb County			
Jurisdiction	Population	Households	Housing Units
<b>DeKalb (County)</b>	764,382	289,829	326,101
<b>Avondale Estates (City)</b>	3,567	1,422	1,726
<b>Brookhaven (City)</b>	55,161	22,549	25,945
<b>Chamblee (City)</b>	30,164	11,526	13,198
<b>Clarkston (City)</b>	14,756	3,727	5,398
<b>Decatur (City)</b>	24,928	8,841	11,205
<b>Doraville (City)</b>	10,623	3,231	3,751
<b>Dunwoody (City)</b>	51,683	20,482	22,514
<b>Lithonia (City)</b>	2,662	938	1,100
<b>Pine Lake (City)</b>	752	386	400
<b>Stone Mountain (City)</b>	6,703	2,351	2,777
<b>Stonecrest (City)</b>	59,194	20,325	24,452
<b>Tucker (City)</b>	37,005	14,479	16,255

Data Source: U.S. Census Bureau (2020 Decennial Census),

<https://data.census.gov/cedsci/profile?q=0500000US13089>

NOTE: The population of DeKalb County includes 390,344 who live inside the Atlanta-DeKalb County Census Division (CCD). The City of Atlanta participates in the Fulton County Multi-Jurisdictional Hazard Mitigation Plan.

The U.S. Census Bureau (v2019) reported the median value of owner-occupied housing units in DeKalb County to be \$215,600. However, BestPlaces, <https://www.bestplaces.net/housing/county/georgia/dekalb>, shows the current median home cost in DeKalb County to be \$275,300. BestPlaces also indicates home appreciation is up 16.5% in 2021.

Regarding new housing stock, the U.S. Census Bureau indicates the issuance of 2,225 building permits in DeKalb County for 2020. However, since not all permits become actual housing starts, and starts lag the permit stage of construction, this number does not represent total new construction, but should provide a general indicator on construction activity and the local real estate market.

The following table provides a structural summary, by sector, for DeKalb County, as identified by FEMA's geographic information system-based natural hazard analysis tool, Hazus.

Table 6: General Building Stock (GBS) Exposure Updates by Occupancy Class, DeKalb County

General Building Stock (GBS) Exposure Updates by Occupancy Class, DeKalb County				
General Occupancy	Default Hazus-MH Count	Updated Count	Default Hazus-MH Exposure	Updated Exposure
Commercial	13,947	6,670	\$13,046,956,000	\$12,186,755,000





## SECTION 3: PLANNING AREA

General Building Stock (GBS) Exposure Updates by Occupancy Class, DeKalb County				
General Occupancy	Default Hazus-MH Count	Updated Count	Default Hazus-MH Exposure	Updated Exposure
Industrial	3,328	951	\$2,315,533,000	\$1,871,459,000
Residential	206,947	213,813	\$65,913,862,000	\$124,235,839,000
Agricultural	525	0	\$196,471,000	0
Religious	1,583	230	\$1,526,135,000	\$250,159,000
Government	491	0	\$547,765,000	0
Education	639	89	\$1,513,469,000	\$323,004,000
<b>TOTAL</b>	<b>227,460</b>	<b>221,753</b>	<b>\$85,060,191,000</b>	<b>\$138,867,216,000</b>

Data Source: DeKalb County EMA

*NOTE: Per the Hazus report, the GBS records for DeKalb County were replaced with data derived from parcel and property assessment data obtained from DeKalb County. The county provided-property assessment data was current as of July 2022. The exposure values represent the total number and replacement costs for DeKalb County buildings.*

Based upon the numbers indicated above, DeKalb County has a total of \$138,867,216,000 billion in structural (building value) exposure.

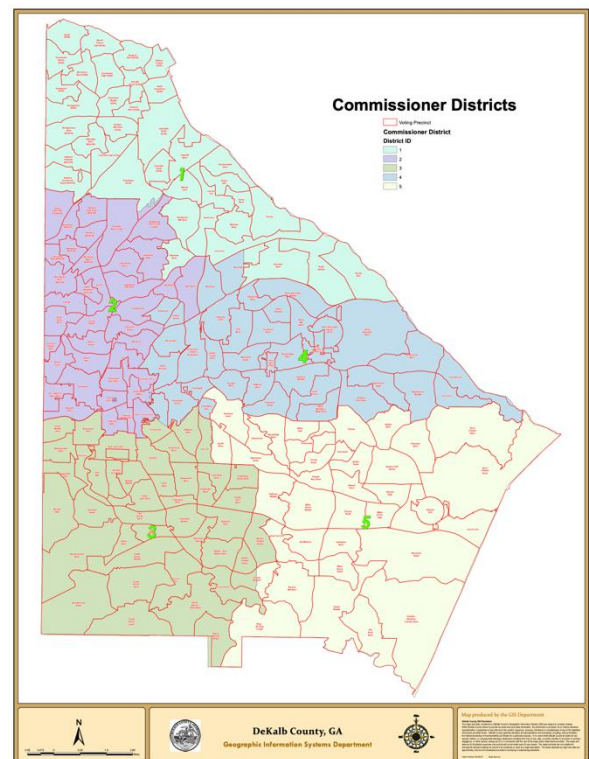
### Government

The Board of Commissioners serves as the legislative branch of the DeKalb County government. The Board is comprised of seven part-time commissioners, all elected to a four-year term. DeKalb County is divided into five districts with one commissioner serving each district. There are also two “super districts,” one on the east end of the county and the other on the west end, each making up about half of the county population. Each super district is served by one commissioner. Therefore, every citizen of DeKalb County is served by two commissioners, one with the district and one with the super district.

Each of the cities within DeKalb County have their own local governing bodies in place. These consist of an elected mayor and city council, and an appointed city manager who oversees the day-to-day operations of their respective city’s functions, i.e., zoning, code enforcement, building permits, site inspections, business licenses, public safety, etc.

### Emergency Services

The DeKalb County E-911 Center serves as the planning area’s primary Public Safety Answering Point (PSAP). Its staff handles more than one million calls each year, over 800,000 of which are 9-1-1 calls, providing full dispatch services to all of unincorporated DeKalb County and to the cities of Avondale Estates, Clarkston, Lithonia, Pine Lake, Stone Mountain, Stonecrest, and Tucker. The center also provides fire-rescue dispatch services to the cities of Brookhaven, Chamblee, Decatur (rescue only), Doraville, and Dunwoody. Additionally, the center provides rescue dispatch services to that portion of Atlanta which lies in DeKalb.





## SECTION 3: PLANNING AREA

The cities of Chamblee, Decatur, and Doraville operate their own PSAPs. The cities of Brookhaven and Dunwoody utilize the services of the Chattahoochee River 911 Authority (ChatComm) as their public safety answering point.

DeKalb County residents are served and protected by the DeKalb County Police Department, the DeKalb County Sheriff's Office, and Georgia State Patrol. The Uniform Division of the DeKalb County Police Department consists of four precincts and the Tactical Response Team (TRT). The DeKalb County Sheriff's Office is one of only 41 sheriff's offices nationwide (3,083) to hold the distinctive "Triple Crown" accreditation status by the National Sheriff's Association.

Fire services are provided by the DeKalb County Fire Rescue Department and others within their jurisdictional borders. The Department operates 26 strategically located to provide coverage throughout the planning area. The stations are staffed by 600 well-trained men and women and handle nearly 90,000 calls for service annually.

Mutual aid agreements are in place to support large-scale, multi-department emergency response. Collectively, there are 26 fire facilities, ten (10) police facilities, and one (1) Emergency Operations Center (EOC) located in DeKalb County and participating jurisdictions.

The DeKalb Emergency Management Agency (DEMA) is the lead organization responsible for providing management and coordination of mitigation, preparedness, response, and recovery activities within the county.

### **Hospitals & Medical Facilities**

DeKalb County has multiple hospitals and health care facilities that range in size and primary function, including emergency/trauma care, primary care, long-term care, and walk-in care. Among them are Emory University Hospital, Emory DeKalb Medical, and the Atlanta VA Medical Center.

### **Senior Care & Living Facilities**

DeKalb County has an extensive system of programs and services for its senior (65+) population. This includes seven (7) nursing homes, senior centers, and senior housing facilities, all of which are considered vulnerable to the impacts from disasters.

*NOTE: FEMA/DMA 2000 requires that hazard mitigation plans consider socially vulnerable populations. These populations can be more susceptible to hazard events, based on several factors, including their physical and financial ability to react or respond during a hazard, and the location and construction quality of their housing. Accordingly, the elderly (65+ population) as well as those living in low-income households are considered vulnerable populations within this update to this plan update.*

### **Schools**

As for public education, the planning area is served by the DeKalb County School District (DCSD), <https://www.dekalbschoolsga.org>. DCSD is Georgia's third-largest school system. The district serves nearly 102,000 students, 137 schools & centers, and 15,500 employees.

### **Transportation**

**Highways** – Five (5) major road arteries, i.e., interstates, traverse DeKalb County: Interstates 20, 85, and 285. I-20 runs east to west, while I-85 runs northeast to southwest. I-285, aka "the Perimeter," is a beltway that encircles most of Atlanta. It has come to mark the boundary between the interior of the region and its surrounding suburbs. Numerous, heavily traveled state routes are also present within DeKalb County.

**Airports** – DeKalb County is located within minutes of the Hartsfield-Jackson Atlanta International Airport (ATL), which is presently the world's second busiest airport (only behind Guangzhou Baiyun International Airport in China). The county itself is home to the DeKalb-Peachtree Airport (PDK), the second busiest airport in the State of Georgia. As such, PDK has averaged about 228,000 operations (take-offs and landings) per year over the past 30 years.





## SECTION 3: PLANNING AREA

**Rail Systems** – DeKalb began as a railroad town and it still serves as a major rail junction, with several freight lines belonging to Norfolk Southern and CSX intersecting below street level in downtown.

**Public Transportation** – The Metropolitan Atlanta Rapid Transit Authority, or MARTA, is the principal rapid-transit system in the Metro Atlanta area, and is the eighth largest in the U.S. Though originally formed in 1971 as strictly a bus system, MARTA today also consists of 48 miles of rail track and 38 train stations. It also maintains a single rail station at Hartsfield-Jackson Atlanta International Airport (ATL). Presently, MARTA serves nearly 400,000 passengers a day, including residents of DeKalb County.

### **High-Hazard Dams**

After considerable study and evaluation by several sources, it has been determined that Georgia has nearly 31 Class II Dams and 16 Class I Dams located in DeKalb County.

### **Evacuation Measures**

Depending on a hazard's severity and impact, certain locations within DeKalb County may need to be evacuated. In these instances, the county assists with the coordination and communication of evacuation routing as necessitated by the execution of local municipal Emergency Operations Plans (EOPs).

Specific evacuation plans are identified in Atlanta's Regional Coordination Evacuation Plan and DeKalb County's emergency plans; most of the plans' content is not shared with the public until warranted.

DeKalb County and all participating jurisdictions have identified mitigation actions to protect critical facilities and critical infrastructure, including facilities available to support sheltering and transportation routes that facilitate evacuation and the movement of emergency vehicles.

### **Shelters**

With the support and cooperation of the American Red Cross (ARC) and local jurisdictions, DeKalb County assists with the coordination and communication of shelter availability as necessitated by the execution of local municipal EOPs.

### **Climate & Physical Environment**

DeKalb County is categorized as having a humid, subtropical climate, influenced by the Appalachian Mountains to the north, the Gulf of Mexico to the south, and the Atlantic Ocean to the southeast. The summer (July) high is around 89 degrees, and the winter (January) low is around 32 degrees. The county receives 52.3 inches of rain and 1.4 inches of snow, on average, each year, which is below the U.S. average of 38 and 28 inches respectively.

According to the National Weather Service, <https://www.weather.gov/ffc/2019AnnualClimateSummary>, 2019 ended up being warmer and drier across north and central Georgia. Average temperatures were at least two degrees above normal. Ranked by average temperatures, Atlanta (66.1 degrees) recorded its warmest year on record. Climate change is generally considered to be the root cause for the increase.

The annual BestPlaces Comfort Index for DeKalb County is 7.6 (10=best), which means it is one of the most pleasant places in Georgia.

As for the physical environment of the planning area, DeKalb County is largely built out and suburban in nature. Most of the county is in the Winder Slope District of Georgia's Piedmont Province. The Winder Slope District is characterized by gently to strong sloping hillsides bisected by headwaters of major streams flowing to the Atlantic Ocean. The soils of DeKalb County fall into 12 U.S. Natural Resource Conservation (NRCS) categories, ranging from poorly drained or nearly level ground to well-drained soils on steep slopes.

There are three major drainage basins: the Chattahoochee River Basin, South River Basin, and the Yellow River Basin. Most of the land in the Chattahoochee River Basin drains westward to the Chattahoochee River via Nancy Creek, Peachtree Creek, and several smaller tributaries. The South River tributaries, Pole Bridge, Snapfinger, Shoal, and Entrenchment Creeks, drain the southern part of DeKalb County. The southeastern portion of DeKalb is drained by the Yellow River, which flows through the extreme eastern part

of the County and flows toward the south. The Yellow River Basin includes Stone Mountain, Swift, and Crooked Creeks.

Soils along the South River, Yellow River, Peachtree Creek, Nancy Creek, and their tributaries are nearly level. The floodplains are typically narrow and frequently flood during the spring and winter months. (For additional information, see Section 4.4 – Flood.)

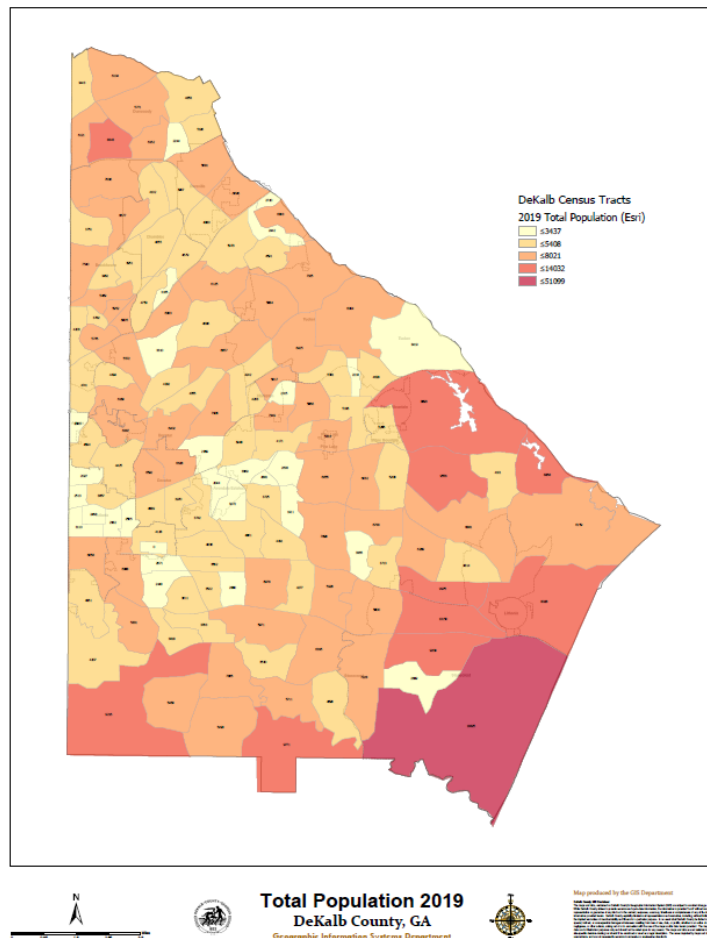
Tree species commonly found in the DeKalb County include Loblolly Pine, Northern Red Oak, White Oak, Short Leaf Pine, White Ash, and Winged Elm.

Given its many attributes, including location (proximity to Atlanta), continued financial and economic vitality, cultural diversity, rich history, and natural beauty, DeKalb County remains attractive to new residents, businesses, and visitors alike. As evidence, the Atlanta Regional Council (ARC) predicts that the county's population will grow to just over one million in 2050.

### 3.1 – Demographics

Of the 159 counties in the State of Georgia, DeKalb County is ranked as 112<sup>th</sup> in land area (267.58 square miles) and fourth in population size (707,185). According to the U.S. Census Bureau, the population of DeKalb County increased from 691,893 in 2010 to 764,382 in 2020. This represents an increase of 72,489 people, or a 10.48% increase over a ten-year period.

MAP: 1 JURISDICTIONAL MAP



Source: Geographic Information Systems Department



## SECTION 3: PLANNING AREA

The following table details the population demographics specific to DeKalb County and its participating jurisdictions.

Table 7: Community Demographics, DeKalb County

Community Demographics, DeKalb County							
Jurisdiction	Size (Sq. Mi.)	Population			% Population Change		
		2000	2010	2020	2000 – 2010	2010 – 2020	2000 – 2020
<b>DeKalb County</b>	267.7	665,865	691,893	764,382	+3.91%	+10.48%	+14.8%
<b>Avondale Estates (City)</b>	1.23	2,609	2,960	3,567	+13.45%	+20.5%	+36.7%
<b>Brookhaven (City)</b>	12	38,579	40,456	55,161	+4.87%	+36.35%	+43%
<b>Chamblee (City)</b>	7.7	9,552	9,892	30,164	+3.56%	+205%	+216%
<b>Clarkston (City)</b>	2.1	7,231	7,554	14,756	+4.47%	+95.3%	+104%
<b>Decatur (City)</b>	4.4	18,147	19,335	24,928	+6.55%	+28.9%	+37.4%
<b>Doraville (City)</b>	4.9	9,862	8,330	10,623	-15.53%	+27.5%	+7.72%
<b>Dunwoody (City)</b>	13.2	-	46,267	51,688	-	+11.7%	-
<b>Lithonia (City)</b>	0.9	2,187	1,924	2,662	-12.03%	+38.36%	+21.7%
<b>Pine Lake (City)</b>	0.2	621	730	752	+17.55%	+3.014%	+21.1%
<b>Stone Mountain (City)</b>	1.6	-	5,802	6,703	-	+15.53%	-
<b>Stonecrest (City)</b>	37.4	-	-	59,194	-	-	-
<b>Tucker (City)</b>	20.25	-	-	37,005	-	-	-

Data Source: U.S. Census Bureau (2020 Decennial Census)

\*Percent of Population Change Calculation: <https://www.omnicalculator.com/math/percentage-change#how-to-calculate-the-percent-change>

NOTE: No population data exists for the DeKalb County cities of Stonecrest and Tucker as they were only incorporated since 2017 and 2016 respectively.



## SECTION 3: PLANNING AREA

The Atlanta Regional Commission (ARC), as previously stated, projects that DeKalb County's population will grow to just over one million in 2050.

The U.S. 2020 Decennial Census, in combination with the 2019 American Community Survey, also included the following demographic values specific to DeKalb County:

- Of the total population (764,382), 388,963 are categorized as Black or African American; 225,752 are categorized as White; 81,471 are categorized as Hispanic or Latino; 50,834 are categorized as Asian. The balance of the population is comprised of Other/Combined races.
- Of the total population, 7.1% of people are under the age of five; 76.7% are age 18 and over; and 12.9% are over the age of 65.
- Of the total population, 9.8% of people have a health-related disability.
- Of the total population, 62.9% are enrolled in school (K-12), compared to the State of Georgia at 67.5%.
- The employment rate within DeKalb County is 65.4% versus the State of Georgia at 59.6%.
- Of the total population, 12.4% of people live below the poverty level, which is lower than the State of Georgia at 13.3%.

It is important to note that population trends can be used as a basis for estimating future changes within the planning area. Population trends can provide a basis for making decisions on the type of mitigation approaches to consider and the locations in which these approaches should be applied. This information can also be used to support planning decisions regarding future development in vulnerable locations, e.g., nursing homes or low-income households.

*Map 2: DeKalb County, Community Profile*

\*Has been requested

*Map Source: Insert*



### 3.2 – Land Use & Development Trends

As previously mentioned, DeKalb County was originally carved from the Georgia counties of Henry, Gwinnett, and Fayette, and formally established in 1822. Today, it is part of the thriving Metro Atlanta area, and encompasses 267.7 square miles of land area. Its population, as of the 2020 U.S. Decennial Census, is 764,832, which is up from 691,893, or 10.48%, from 2010.

Like other locations in and around the Metro Atlanta area, DeKalb County has experienced considerable change within jurisdictional boundaries over the last few decades. Most recently, two new municipalities were carved from unincorporated areas within the County. These are The City of Tucker, established 2016, to the northeast and the City of Stonecrest, established 2017, to the southeast. According to public record, it appears more change may be on the way as many are hoping to incorporate a new city, the City of DeKalb, in the not-so-distant future.



*Photo Source: Unknown*

The largest land use in DeKalb County is Medium Density Residential, followed by Forested/Undeveloped, Commercial, and High Density Residential. This reflects the county's development pattern, which is predominately single-family residential with commercial and multi-family uses along major roadway corridors and intersections. Most of the DeKalb County follows an automobile-oriented decentralized suburban development pattern. This pattern, which is very common within the Metro Atlanta region, has high building and land use separation resulting in low pedestrian orientation and accessibility.

The current pace of residential development is expected to greatly reduce the amount of Forest/Undeveloped land as the county approaches build out. Most of the county's remaining large tracts of undeveloped land are found in the far southern and eastern portions of DeKalb, while many smaller tracts still exist within developed areas.

With the U.S. Census Bureau reporting the issuance 10,074 building permits issued for 2020, 11,405 issued for 2021 and 3,279 issued so far for 2022, it is evident that new construction and structural improvements continue at a steady pace in DeKalb County. It presently follows the Updated Georgia State Minimum Standard Codes, which went into effect on January 1, 2020.

To meet the current and future demands of an increasing population, DeKalb County and its participating jurisdictions must continue to implement proactive measures pertaining to land use and development. It is there that housing, transportation, education, historic preservation, and the environment, among other things, are of greatest concern.

Accordingly, and as required by state statute, OCGA 50-8-7.1 et seq., every local government in Georgia is required to have a Comprehensive Plan to guide public policy. The 2014 update to the Minimum Standards and Procedures for Local Comprehensive Planning further requires that each government update its comprehensive plan at least once every five years.

Three elements are required for every community's Comprehensive Plan: Community Goals, Needs and Opportunities, and the Community Work Program. Additional elements may also be required based upon local conditions within the specific community. Examples of optional elements include Infrastructure and Community Facilities, Natural Resources, Community Sustainability, Disaster Resilience, Education, Greenspace, Historic and Cultural Resources, Human Services, Intergovernmental Coordination, Public Safety, Recreation, and Solid Waste Management.



## SECTION 3: PLANNING AREA

The Comprehensive Plans of DeKalb County, and the cities of Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stonecrest, Stone Mountain, and Tucker are available online through the Georgia Department of Community Affairs website, <https://www.dca.gov>.

Following are the links to all participating jurisdictions' comprehensive plans:

DeKalb/Unincorporated DeKalb (County),

[https://www.dca.ga.gov/sites/default/files/2021.09.16.dekalbco.compplanupdate\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2021.09.16.dekalbco.compplanupdate_adopted.pdf)

Avondale Estates (City), <https://www.avondaleestates.org/DocumentCenter/View/1468/2016-Comprehensive-Plan-Update---Adopted-?bidId=>

Brookhaven (City),

[https://www.dca.ga.gov/sites/default/files/2019.09.30.brookhavencompplanupdate\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2019.09.30.brookhavencompplanupdate_adopted.pdf)

Chamblee (City),

[https://www.dca.ga.gov/sites/default/files/2019.12.20.chambleecomprehensiveplan\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2019.12.20.chambleecomprehensiveplan_adopted.pdf)

Clarkston (City), <https://www.dca.ga.gov/sites/default/files/2016.10.06.clarkstoncompplanadopted.pdf>

Decatur (City), [https://www.dca.ga.gov/sites/default/files/2021.10.29.cityofdecatur.compplan\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2021.10.29.cityofdecatur.compplan_adopted.pdf)

Doraville (City),

[https://www.dca.ga.gov/sites/default/files/doravillecompplanupdate20211020\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/doravillecompplanupdate20211020_adopted.pdf)

Dunwoody (City),

[https://www.dca.ga.gov/sites/default/files/2021.01.20.cityofdunwoody.compplanupdate\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2021.01.20.cityofdunwoody.compplanupdate_adopted.pdf)

Lithonia (City),

[https://www.dca.ga.gov/sites/default/files/2021.03.16.cityoflithonia.2020compplanupdate\\_adopted\\_reduce\\_d.pdf](https://www.dca.ga.gov/sites/default/files/2021.03.16.cityoflithonia.2020compplanupdate_adopted_reduce_d.pdf)

Pine Lake (City), [https://www.dca.ga.gov/sites/default/files/pinelakecompplan2021014\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/pinelakecompplan2021014_adopted.pdf)

Stone Mountain (City),

[https://www.dca.ga.gov/sites/default/files/2021stonemountaincompplan20211102\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2021stonemountaincompplan20211102_adopted.pdf)

Stonecrest (City),

[https://www.dca.ga.gov/sites/default/files/2019.07.12.stonecrestcicompplan\\_adopted.pdf](https://www.dca.ga.gov/sites/default/files/2019.07.12.stonecrestcicompplan_adopted.pdf)

Tucker (City), <https://www.dca.ga.gov/sites/default/files/2018.07.20.tuckercompplanadopteddca.pdf>

In addition to local comprehensive plans, the State of Georgia, which is divided into 12 planning regions, requires Regional Plans to aid with future land use and development. Regional Plans, as described the Georgia Department of Community Affairs, are a guide for future decision-making that address critical regional issues and opportunities and provide a framework for advancing the state's planning goals. Regional Plans are also wider in scope than local plans, and deal with broader issues that involve a variety of entities, including state and federal agencies, local governments, and private organizations. Each of Georgia's twelve Regional Commissions develops a regionally specific plan, which must be approved by DCA and adopted by its Regional Council. (Georgia Department of Community Affairs, <https://www.dca.ga.gov/local-government-assistance/planning/regional-planning/regional-comprehensive-planning>.)

DeKalb County lies within the Atlanta Planning region, which also includes Cherokee, Clayton, Cobb, Fulton, Douglas, Fayette, Forsyth, Gwinnett, Henry, and Rockdale counties, and the City of Atlanta. Information pertaining to the Atlanta Planning region's Comprehensive Plan is available online at: <https://www.dca.ga.gov/node/2767>. (Note: The 2016 plan is currently in the process of being updated.)





## SECTION 3: PLANNING AREA

With the Atlanta Regional Commission, <https://www.atlantaregional.org>, predicting DeKalb County's population to grow to one million in 2050, the information within the aforementioned plans is essential to making meaningful, long-term decisions pertaining to community development. This includes mitigating the hazards that pose risk to all and/or portions of the planning area. A hazard-specific analysis, as it relates to land use and development trends within DeKalb County, is included within each identified hazard in Section

### 4 – Hazard Risk Assessment.

As explained by the Georgia Municipal Association, <https://www.gacities.com/Resources/GMA-Handbooks-Publications/Handbook-for-Georgia-Mayors-and-Councilmembers/Part-Three-MANAGEMENT-of-MUNICIPAL-GOVERNMENT/Planning-and-Land-Use.aspx>, the placement of certain infrastructure, i.e., roads and bridges, water/sewer/stormwater facilities, schools and libraries, police/fire/EMS facilities, and parks and recreation facilities, determine in large part where future development will go as well. Land adjacent to public investment is more easily developed and is more likely to be converted from agriculture, conservation, or another “green” use to a more intensive use when public facilities become available. For this reason, city leaders should be careful to avoid environmentally sensitive areas when choosing the location of common infrastructure.

Unfortunately, several major environmental problems associated with rapid land development persist within the planning area. Among them are the loss of trees and other vegetation, loss of wildlife habitat, poor air quality, and the creation of severe micro-climates, e.g., urban heat islands. Of equal concern is reduced water quality since the Chattahoochee River is the source of drinking water for most of DeKalb County. Additionally, the conversion of undeveloped land to impervious surfaces has significantly increased storm water runoff, which directly impacts the quality and flow of DeKalb County's streams. (See Section 5 for a complete list of mitigation projects addressing these and other issues within the planning area).

All participating jurisdictions within DeKalb County, including Decatur, the county seat, participate in the National Flood Insurance Program (NFIP) and the Community Rating System (CRS). There are presently 186 properties identified as Repetitive Loss (RL) or Severe Repetitive Loss (SRL). See Table 37 for a complete list of Repetitive Loss (RL) or Severe Repetitive Loss (SRL).

### 3.3 – Critical Facilities

Certain facilities have a net positive value on the community, i.e., they contribute to the public good by facilitating the basic functions of society. These facilities maintain order, public health, and education, and help the economy function. Additionally, there are infrastructure and facilities integral to disaster response and recovery operations. Conversely, some facilities and infrastructure are of extreme importance due to the negative externalities created when they are impacted by a disaster. What fits this definition will vary slightly from community to community, but the definition remains as a guideline for identifying critical facilities and infrastructure. For DeKalb County and its participating jurisdictions, the table below lists the **353** identified critical facilities and infrastructure by category. A complete list, including the locations (by jurisdiction) of these 353 identified critical facilities and infrastructure, can be found in Appendix C – Critical Facilities & Infrastructure.

Table 8: Critical Facilities by Category, DeKalb County

Critical Facilities by Category, DeKalb County	
Category	Number of Facilities
Communications	19
Courts/Courthouse(s)	5
Fire	27



## SECTION 3: PLANNING AREA

Government Office(s)	66
Hospital	5
K-12	163
Library	18
Medical Office(s) & Clinic(s)	3
Police	13
Private	10
Sheriff's Office/Jail	1
Transportation	1
University	5
Water Treatment/Wastewater Facility	17
<b>Total</b>	<b>353</b>

Data Source: DEMA





## SECTION 4: RISK ASSESSMENT

### Section 4 – Risk Assessment

The goal of hazard mitigation is to reduce the future impacts of hazards, including property damage, disruption to local and regional economies, and the amount of public and private funds spent to assist recovery. To be done correctly, mitigation decision-making should be based on risk assessment. A risk assessment provides the foundation for the rest of the mitigation planning process, which is focused on identifying and prioritizing actions to reduce risk to hazards. The risk assessment can also be used to establish emergency preparedness and response priorities, for land use and comprehensive planning, and for decision making by elected officials, city and county departments, businesses, and organizations in the community.

#### Planning Process

#### Local Procedures & Resources

#### Planning Area

#### Risk Assessment

- Identifying Hazards
- Profiling Hazards
- Identifying Community Assets
- Risk Analysis
- Hazard Risk Summary
- Excluded Hazards

#### Mitigation Strategy

Risk is the potential for damage, loss, or other impacts created by the interaction of natural hazards with community assets. Hazards are natural processes, such as tornadoes and earthquakes. The exposure of people, property, and other community assets to natural hazards can result in disasters depending on the impacts. Impacts are the consequences or effects of the hazard on the community and its assets. The type and severity of impacts are based on the extent of the hazard and the vulnerability of the asset, as well as the community's capabilities to mitigate, prepared for, respond to, and recover from events.

A review of recently declared disasters, from 2016 to the present, provides an overview of the hazards facing DeKalb County and its participating jurisdictions. This timeframe is referenced because DeKalb County has a FEMA-approved HMP that will expire on December 12, 2021. Since 2016, DeKalb County and its participating jurisdictions have experienced two presidentially declared disasters. These disaster declarations were due to a hurricane and epidemic/pandemic. A list of the declared disasters occurring in DeKalb County and its participating jurisdictions since 2016 is presented in the following table. Smaller events are more frequent and are not reflected in the table.

**Note:** Human-caused hazards such as Epidemic/Pandemic were not identified in the 2019 Georgia Hazard Mitigation Strategy Standard and Enhanced Plan (March 18, 2019 – March 17, 2024) and Statewide Hazard Assessment, or the 2016 DeKalb County Hazard Mitigation Plan. This disaster declaration was included in the table below due to the COVID-19 pandemic affecting DeKalb County and its participating jurisdictions during the drafting of this plan update.

Table 9: Presidential Disaster Declarations, DeKalb County

Presidential Disaster Declarations, DeKalb County		
Designation	Incident Period	Incident Type
DR - 4338	09/7/2017 – 09/20/2017	Hurricane Irma
DR - 4501	01/20/20 – Continuing	COVID-19 Pandemic

Data Source: FEMA

#### 4.1 – Identifying Hazards

The first step in developing a hazard assessment is to identify the hazards that have a reasonable risk of occurring in DeKalb County and its participating jurisdictions. Proper identification allows for appropriate



## SECTION 4: RISK ASSESSMENT

and well-planned action to mitigate the extent and impact of a hazard event. It also helps facilitate emergency response and recovery operations. Further, while not all disaster contingencies can be planned for, applying an all-hazards approach to the mitigation process does yield greater awareness and better preparedness for unforeseen hazard events overall.

The following table lists the 13 hazards identified in the Georgia Hazard Mitigation Strategy, as well as the justification for their inclusion/exclusion within this DeKalb County HMP update. Research indicates two of the 13 hazards (coastal hazards and geological hazards) pose no reasonable risk to the planning area. As such, they are excluded from this plan update. Justification for their exclusion can be found in Section 4.3 – Excluded Hazards.

Of the 13 state-identified hazards, 11 pose a risk to DeKalb County and/or at least one of its participating jurisdictions. These are hurricane wind, wind, severe weather, tornadoes, inland flooding, severe winter weather, drought, wildfire, earthquake, dam failures, and extreme heat. This plan integrates dam failure and inland flooding into the flooding hazard section, and hurricane winds, severe weather, and tornadoes into the wind hazard section. Details for each of these hazards and their potential impact on DeKalb County and its participating jurisdictions are in Section 4.3 – Hazard Risk Summary.

*Table 10: State of Georgia Identified Hazards*

State of Georgia Identified Hazards			
Hazards in State / Previous County HMP	Previous Inclusions	Included/Excluded	Justification
Hurricane Wind	State Plan, Prior Plan	Included in Wind Hazard Section	Disaster History
Coastal Hazards	State Plan	Not Included	No Reasonable Risk
Wind	State Plan, Prior Plan	Included	Disaster History
Severe Weather	State Plan, Prior Plan	Included in Wind Hazard Section	Disaster History
Tornado	State Plan, Prior Plan	Included in Wind Hazard Section	Disaster History
Inland Flooding	State Plan, Prior Plan	Included in Flood Hazard Section	Disaster History
Severe Winter Weather	State Plan, Prior Plan	Included	Disaster History
Drought	State Plan, Prior Plan	Included	Disaster History
Wildfire	State Plan, Prior Plan	Included	Disaster History
Earthquake	State Plan, Prior Plan	Included	Reasonable Risk
Geological Hazards	State Plan	Excluded	No Reasonable Risk
Dam Failure	State Plan, Prior Plan	Included in Flood Hazard Section	Reasonable Risk
Extreme Heat	State Plan, Prior Plan	Included	Disaster History



### 4.2 – Profiling Hazards

#### 4.2.1 – Hazard Description

This section describes the general characteristics of the specified hazard.

#### 4.2.2 – Location & Extent

**Location.** This section contains information about the geographic areas within the planning area that are affected by the hazard.

**Extent.** This section describes the strength or magnitude of the hazard.

#### 4.2.3 – Previous Occurrences

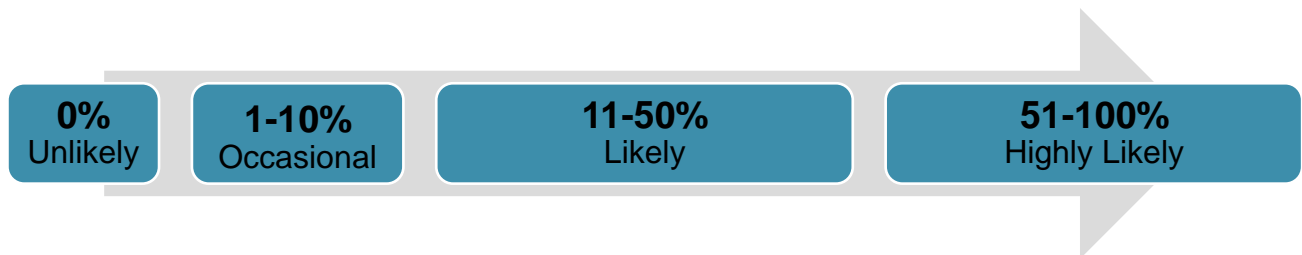
This section contains a history of previous hazard events for the profiled hazard.

**Methodology:** *Most of the historical data used in the risk assessment originates from the National Oceanic and Atmospheric Administration/National Centers for Environmental Information (NOAA/NCEI). In most instances, the hazard affects a large geographic area, and thus, the hazard data is reported at a county level. This is the best available data for these hazards. The calculations for Previous Occurrences and the Probability of Future Events are based on county-level data as well.*

#### 4.2.3A – Probability of Future Events

This section of the plan describes the likelihood, or probability, of the identified hazard occurring within the planning area. If discrete quantitative data is available, a finite probability will be listed. See the table below for additional information related to the probability of future events.

*Illustration 1: Probability Categories/Range per Year*



#### 4.2.4 – Vulnerability of Community Assets

This section identifies assets at risk to hazards. The assets include people, economy, built environment, and natural environment.

#### 4.2.5 – Risk Analysis

This section evaluates the vulnerability of community assets, describes potential impacts, and estimates losses for each hazard. Methods for analyzing risk include exposure analysis, historical analysis, and scenario analysis. These methods can be expressed qualitatively or quantitatively. Qualitative evaluations describe the types of impacts that might occur during a hazard event. Quantitative evaluations assign values and measure the potential losses to the assets at risk.

**Exposure Analysis.** Identifies the existing and future assets located in the identified hazard areas. It may also consider the magnitude of the hazard. Exposure analysis may quantify the number, type, and value of structures, critical facilities, and infrastructure located in identified hazard areas.



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**Historical Analysis.** Uses information on impacts and losses from previous hazard events to predict potential impacts and losses during a similar future event. Historical analysis is used to address National Flood Insurance Program (NFIP) insured structures that have been repetitively damaged.

**Scenario Analysis.** Predicts the impacts of a particular event. Scenario analysis may be used to predict potential impacts and losses in terms of monetary costs, casualties, infrastructure downtime, and other risk elements.

In 2022, the Georgia Department of Emergency Management partnered with the Carl Vinson Institute of Government at the University of Georgia to develop a detailed risk assessment focused on defining hurricane, riverine flood, and tornado risks in DeKalb County, Georgia. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets.

Hazus-MH Version 2.2 SP1 was used to perform the analyses for DeKalb County. The Hazus-MH application includes default data for every county in the US. This Hazus-MH data was derived from a variety of national sources and in some cases the data are also several years old. Whenever possible, using local provided data is preferred. DeKalb County provided building inventory information from the county's property tax assessment system. This section describes the changes made to the default Hazus-MH inventory and the modeling parameters used for each scenario.

The default Hazus-MH site-specific point inventory was updated using data compiled from the Georgia Emergency Management Agency (GEMA). The default Hazus-MH aggregate inventory (General Building Stock) was also updated prior to running the scenarios. Reported losses reflect the updated data sets.

The GBS records for DeKalb County were replaced with data derived from parcel and property assessment data obtained from DeKalb County. The county provided property assessment data was current as of November 2021 and the parcel data current as of November 2021. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary; then, each parcel point was linked to an assessor record based upon matching parcel numbers. The parcel assessor match-rate for DeKalb County is 100%. The generated building inventory represents the approximate locations (within a parcel) of structures. The building inventory was aggregated by census block. Both the tract and block tables were updated. Table 11 shows the results of the changes to the GBS tables by occupancy class.

*Table 11: GBS Building Exposure Updates by Occupancy Class\**

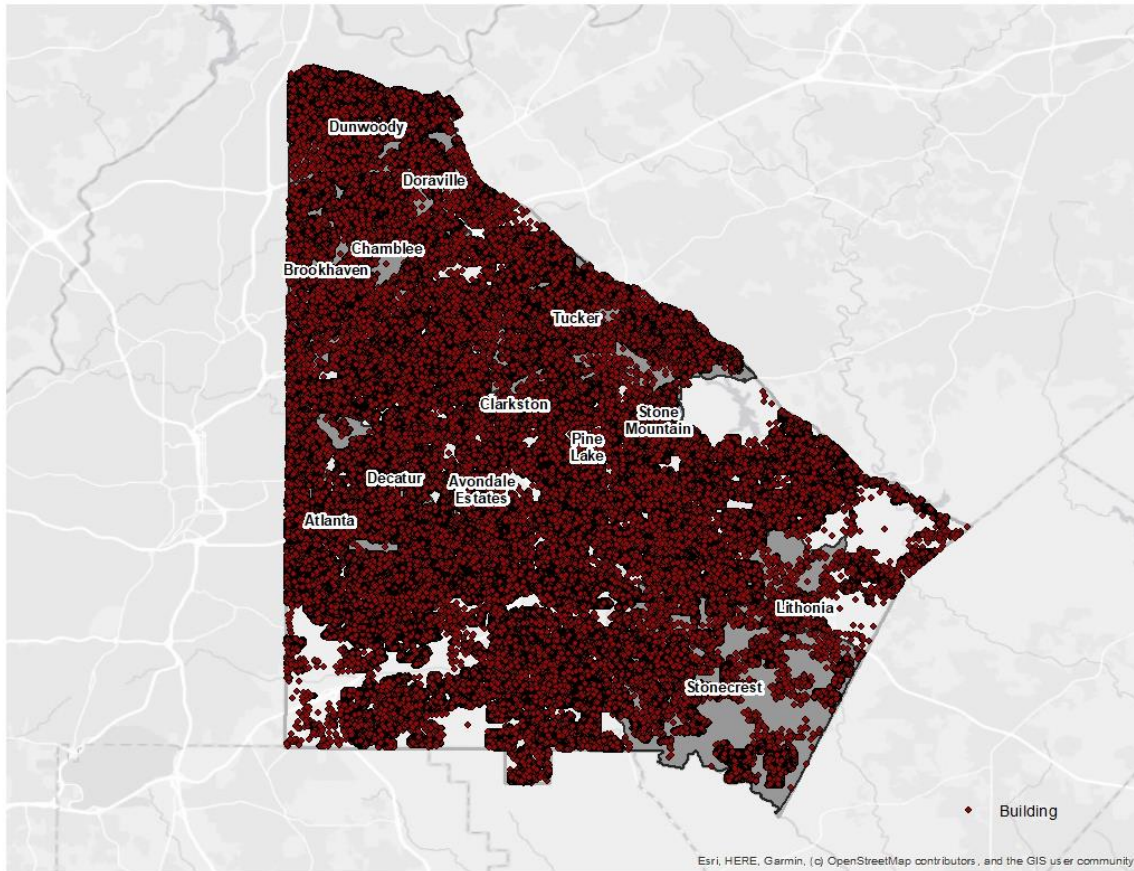
GBS Building Exposure Updates by Occupancy Class				
General Occupancy	Default Hazus-MH County	Updated Count	Default Hazus-MH Exposure	Updated Exposure
Agricultural	525	0	\$196,471,000	\$0
Commercial	13,947	6,670	\$13,046,956,000	\$12,186,755,000
Education	639	89	\$1,513,469,000	\$323,004,000
Industrial	3,328	951	\$2,315,533,000	\$1,871,459,000
Government	491	0	\$547,765,000	\$0
Religious	1,583	230	\$1,526,135,000	\$250,159,000
Residential	206,947	213,813	\$65,913,862,000	\$124,235,839,000
<b>Total</b>	<b>227,460</b>	<b>221,753</b>	<b>\$85,060,191,000</b>	<b>\$138,867,216,000</b>

\*The exposure values represent the total number and replacement cost for all DeKalb County Buildings

Source: *Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

For DeKalb County, the updated GBS was used to calculate hurricane wind losses. The flood losses and tornado losses were calculated from building inventory modeled in Hazus-MH as User-Defined Facility (UDF), or site-specific points. The following map shows the distribution of buildings as points based on the county provided data.

Map 3: DeKalb County Overview



Source: *Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

### 4.2.6 – Problem Statements

Problem statements combine potential consequences and impacts of the identified hazard with other community characteristics to express vulnerability.





### 4.3 (W) – Wind

#### 4.3.1 – Hazard Description

Several different events can generate wind hazards. The National Oceanic and Atmospheric Administration's (NOAA) National Centers for Environmental Information (NCEI) Database divides wind events into several types, including High Wind, Hurricane (Typhoon), Marine High Wind, Marine Strong Wind, Marine Thunderstorm Wind, Strong Wind, Thunderstorm Wind, Tornado, Tropical Depression, and Tropical Storm. Marine High Wind, Marine Strong Wind, and Marine Thunderstorm Wind present no reasonable risk for DeKalb County. This plan will profile Straight-Line Winds (High Wind, Strong Wind, and Thunderstorm Wind), Tropical Systems (Hurricane, Tropical Storm, and Tropical Depression), and Tornadoes. Other hazards associated with thunderstorms, such as lightning and hail, will be included in profile for Straight-Line Winds.

**Straight-Line Winds:** Naturally occurring, wind is simply moving air that is caused by differences in air pressure within the Earth's atmosphere. Air under high pressure moves toward areas of low pressure. The greater the difference in pressure, the faster the air flows. The definitions of the three wind types addressed in this section come from the NOAA/NCEI Storm Data Preparation document:

- High Wind: Sustained, non-convective winds of 40 mph or greater lasting for one hour or longer, or winds (sustained or gusts) of 58 mph for any duration on a widespread or localized basis.
- Strong Wind: Non-convective winds gusting less than 58 mph, or sustained winds less than 40 mph, resulting in a fatality, injury, or damage.



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- **Thunderstorm Wind:** Winds, arising from convection (occurring within 30 minutes of lightning being observed or detected), with speeds of at least 58 mph, or winds of any speed (non-severe thunderstorm winds below 58 mph) producing a fatality, injury, or damage.

Downbursts, including dry or wet microbursts or macrobursts, are classified as Thunderstorm Wind events. In some cases, the downburst may travel several miles from the parent thunderstorm, or the parent thunderstorm may have dissipated. A gustnado is a small and usually weak whirlwind that forms as an eddy in thunderstorm outflows. It does not connect with any cloud-base rotation and is not a tornado. Since their origin is associated with cumuliform clouds, gustnadoes are classified as Thunderstorm Wind events.

Thunderstorms form when warm, moist air near the Earth's surface is forced upward through some catalyst (convection or frontal weather system). As the air rises, it cools, condenses, and forms cumulonimbus clouds that can reach up to 40,000 feet in altitude. When the rising air reaches its dew point, water droplets (rain) and ice (hail) form and begin falling the long distance through the clouds towards the ground. As the droplets fall, they collide with other droplets and become larger. The falling droplets create a downdraft of air that spreads out at the Earth's surface, resulting in strong, oftentimes damaging winds. The collision of the water and ice particles in the cloud(s) form a large electrical field, discharging as dangerous cloud-to-ground or ground-to-cloud lightning.

There are four ways in which thunderstorms can organize: single cell, multi-cell cluster, multi-cell lines (squall lines), and supercells. The average single-cell thunderstorm develops rapidly, is approximately 15 miles in diameter, and lasts less than 30 minutes at a single location. Multi-cell clusters and multi-cell lines, which can also form relatively quickly, can travel for distances exceeding 600 miles. Supercells are usually associated with severe weather phenomena. Regardless of the type of thunderstorm, warm, humid conditions are most favorable for their development.

A thunderstorm is classified as "severe" by NWS when it contains one or more of the following: hail one inch or greater, winds gusting more than 50 knots (57.5 mph), and/or a tornado. In these instances, Severe Thunderstorm Watches or Severe Thunderstorm Warnings will be issued by the national/local weather authorities.

A Severe Thunderstorm Watch is issued by NOAA's Storm Prediction Center when conditions are favorable for severe thunderstorms. A watch can cover parts of a state or several states. A Severe Thunderstorm Warning, on the other hand, is issued by local NOAA NWS Forecast office meteorologists and is specific to a designated area. Warnings, which can cover parts of counties or even several counties, mean severe weather has been reported by spotters or indicated by radar and that there is a serious threat to life and property.

According to NOAA, many hazardous weather events are associated with thunderstorms. Under the right conditions, rainfall from thunderstorms causes flash flooding, which kills more people each year than hurricanes, tornadoes, or lightning. Lightning is responsible for many fires around the world each year and causes fatalities. Hail up to the size of softballs damages cars and windows, and kills livestock caught out in the open. Strong (up to more than 120 mph) straight-line winds associated with thunderstorms knock down trees, power lines and mobile homes.

Lightning is one of the more dangerous weather hazards in the United States. The NWS describes lightning as a giant spark of electricity in the atmosphere or between the atmosphere and the ground. As the rapid discharge between positive and negative regions of a thunderstorm, lightning flashes are composed of a series of strokes (with an average of about four). The length and duration of each lightning strike vary, but typically average around 30 microseconds. People and objects can be directly struck by lightning, or damage can occur indirectly when the current (up to 100 million volts of electrical potential) passes through or near them.

Per the NWS, lightning strikes the U.S. about 25 million times a year, killing an average of 51 people and accounting for hundreds of injuries including serious burns. Interestingly, lightning is hotter than the surface of the sun and can reach temperatures around 50,000° Fahrenheit. Lightning is also responsible for millions



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of dollars of property damage annually, including damage to buildings, communications systems, powerlines, and electrical systems. Moreover, lightning causes forest and brush fires, as well as deaths and injuries to livestock and other animals.

According to the National Lightning Safety Institute (NLSI), lightning triggers more than 26,000 fires in the U.S. each year. The Institute estimates property damage, increased operating costs, production delays, and lost revenue from lightning and secondary effects to be \$6-7 billion dollars/year.

Hail, which is associated with thunderstorms, forms when updrafts carry raindrops into extremely cold areas of the atmosphere and form ice. The frozen precipitation falls to the ground when it becomes heavy enough to overcome the strength of the updraft. Hailstones can range from the size of a pea to the size of a grapefruit, and they can span a variety of shapes, though most are spherical. They are usually less than two inches in diameter and can fall at speeds of 120 mph.

The largest recorded hailstone in the U.S. was nearly as big as a volleyball and fell on July 23, 2010, in Vivian, South Dakota. It was eight inches in diameter and weighed almost two pounds.

On average, hail causes nearly \$1 billion in damage in the U.S. each year to crops and property including automobiles, aircraft, and structures. According to the NOAA's Severe Storms database, there were 6,045 major hailstorms in 2017 resulting in \$1.8 billion in property and crop damage. Hail also poses a safety threat to both humans and animals. In fact, NOAA estimates that 24 people in the U.S. are injured each year with some injuries significant enough to send them to the hospital.

**Tropical Systems:** A tropical weather system, as described by the National Weather Service (NWS), is one with organized convection (generally 100-300 miles in diameter) originating in the tropics or subtropics, having a non-frontal migratory character, and maintaining its identity for 24 hours or longer. It may or may not be associated with a detectable perturbation of the wind field.

Tropical systems include several types of tropical cyclones (the generic term for a non-frontal synoptic scale low-pressure systems over tropical or sub-tropical waters with organized convection, i.e., thunderstorm activity, and definite cyclonic surface wind circulation (Holland 1993). For the purpose of this HMP update, tropical systems include tropical depressions, tropical storms, and hurricanes as defined below:

- Tropical Depression: An organized system of clouds and thunderstorms with a defined circulation and maximum sustained winds of 38 mph (33 knots) or less.
- Tropical Storm: An organized system of strong thunderstorms with a defined circulation and maximum sustained winds of 39 mph to 73 mph (34–63 knots).
- Hurricane: An intense tropical weather system with a well-defined circulation, producing maximum sustained winds of 74 mph (64 knots) or greater. Hurricane intensity is classified into five categories using the Saffir-Simpson Hurricane Scale (see Illustration 2). Winds in a hurricane range from 74 to 95 mph for a Category 1 hurricane to greater than 156 mph for a Category 5 hurricane. Hurricanes reaching Category 3 are considered major hurricanes because of their potential for significant loss of life and property damage. Category 1 and 2 storms are still dangerous and require preventative measures.

It is important to note that while hurricanes pose the greatest threat to life and property, tropical storms and depressions can also be devastating. Floods from heavy rains can cause widespread damage and loss of life, as can hurricane-spawned tornadoes. Both are common occurrences of tropical systems, particularly those that develop in the Atlantic Ocean.

**Tornadoes:** A tornado is a violent, dangerous, rotating column of air that is in contact with both the surface of the earth and a cumulonimbus cloud or, in rare cases, the base of a cumulus cloud. Often referred to as a twister or a cyclone, they can strike anywhere and with little warning. Tornadoes come in many shapes and sizes but are typically in the form of a visible condensation funnel, whose narrow end touches the earth





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and is often encircled by a cloud of debris and dust. Tornadoes are usually born in “supercell” thunderstorms and present certain physical signs that include a dark, greenish sky, large hail, and a powerful train-like roar.

Tornadoes have the potential to produce winds in excess of 200 mph and can be very expansive –some in the Great Plains have exceeded two miles in width. According to the NWS, the widest tornado ever recorded in the U.S. was 2.6 miles wide, and it occurred on May 31, 2013, in El Reno, Oklahoma. Sadly, it claimed the lives of eight people, all of whom were in vehicles, and left a path of destruction (\$40-\$50 million in damage). The costliest tornado on record hit Joplin, Missouri, on May 22, 2011, resulting in \$2.8 billion in damage. It killed 158 people and injured more than a thousand others.

As evidenced by past events, tornadoes can cause all kinds of damage to buildings, infrastructure, and property. Tornadoes have been known to lift and move objects weighing more than three tons, toss homes more than 300 feet from their foundations, and siphon millions of tons of water. However, less spectacular damage is much more common.

Tornadoes can also generate a tremendous amount of flying debris. If wind speeds are high enough, airborne debris can be hurled at buildings with enough force to penetrate windows, roofs, and walls. Most tornado-related injuries or deaths are caused by flying debris.

Violent tornadoes comprise only about two percent of all tornadoes, but they cause 70 percent of all tornado deaths and may last an hour or more. While tornado forecasters cannot provide the same kind of warning that hurricane watchers can, they can do enough to help save lives. Today the average warning time for a tornado alert is 13 minutes.

Until 2007 the Fujita Tornado Scale ranked the severity of tornadoes. The Fujita scale assigned a numerical F value, F0 through F5, based on the wind speeds and estimated damage. Since 2007 the U.S. switched over to the Enhanced Fujita Scale. The altered scale adjusted the wind speed values per F level and introduced a rubric for estimating damage. An EF0 tornado could lightly damage structures to the extent they would become unsafe to use until repaired. An EF1 or larger tornado could destroy the entire neighborhood, town, or city or damage any number of structures to the point where they would be unusable for at least a year.

### 4.3.2 – Location & Extent

All areas of DeKalb County are susceptible to wind hazards. Strong winds can form in association with thunderstorms, or in areas of high pressure. DeKalb County’s proximity to the Gulf of Mexico creates the ideal conditions for thunderstorm and tornado development. Georgia borders the Atlantic Ocean and Gulf of Mexico, both of which provide an environment favorable for tropical systems. While DeKalb County is several hundred miles inland, it is still susceptible to the tropical system hazards.

According to NOAA, there are three basic ingredients needed for thunderstorm development: moisture, an unstable atmosphere, and some way to start the atmosphere moving (<https://www.weather.gov/safety/lightning-thunderstorm-development>). The National Weather Service in Peachtree City notes that all thunderstorms have the potential to produce tornadoes, but the type of storm that is most commonly tornadic is the supercell. This very severe, long-lived thunderstorm contains circulation aloft (mesocyclone) that grows upward through the storm and downward toward the ground. When conditions are favorable, tornadoes will be produced. Supercells have the potential to produce all magnitude of tornadoes. The key atmospheric ingredients that lead to tornado potential are instability - warm moist air near the ground, with cooler dry air aloft and wind shear - a change in wind speed and/or direction with height. An unstable airmass promotes the development of strong updrafts, while wind shear will further increase the strength of the updraft and promotes the rotation from which tornadoes are produced (<https://www.weather.gov/ffc/torntext>).

Thunderstorms are a common occurrence across the U.S., including the State of Georgia. According to SHELATUS™/NCEI data referenced in the Georgia Hazard Mitigation Strategy, an average of 331 severe weather events occurred across the State between 1952 and 2017. These events in total caused 990



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injuries, 168 fatalities, and more than \$1.2 billion in damages. Over the period from 1997 to 2017, the historic occurrence jumped to 499 severe weather events per year, which equates to a significant chance of a severe weather occurrence in any given year.

Wind observations or measurements are required for determining the probability of wind damage and the estimation of wind energy. To help with the planning, design, and construction of buildings for residential and commercial purposes, as well as mitigation efforts, the American Society of Civil Engineers (ASCE) calculates Average Hazard Wind Scores. The wind speeds correspond with the assigned hazard score with values ranging from one to five, as shown in the following table.

Table 11: American Society of Civil Engineers (ASCE) Average Hazard Wind Score(s)

ASCE Average Hazard Wind Scores	
Wind Score(s)	Wind Speeds (mph)
1	<90
2	91-100
3	101-110
4	111-120
5	>120

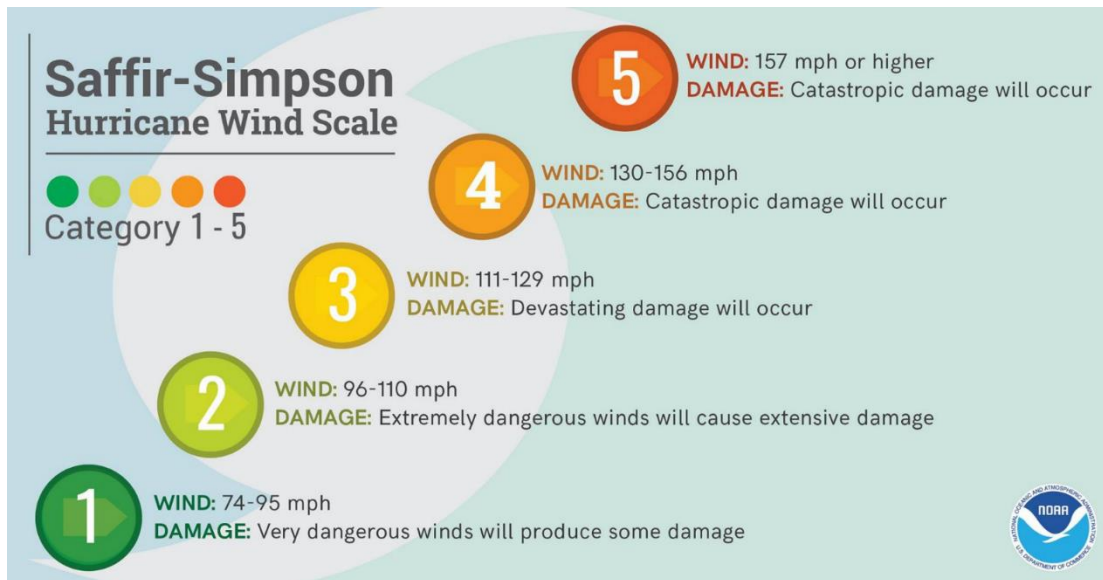
Data Source: ASCE

As documented in the Georgia Hazard Mitigation Strategy Standard and Enhanced Plan (March 18, 2019 – March 17, 2024), DeKalb County has an average ASCE wind score of 1 with wind speeds < 90 MPH. Winds associated with strong to severe thunderstorms contribute significantly to the rating. Potential impacts from localized wind events include, but are certainly not limited to, the following:

- Significant debris generation
- Residential and commercial property loss
- Economic impact from business interruption or loss of tourism
- Agricultural loss
- Displaced residents requiring temporary shelter
- Loss of critical infrastructure function, including roads blocked by debris, downed powerlines, and interruption of communication services

Wind speed is the determining factor in the Saffir-Simpson Hurricane Scale. The following describes the characteristics of each category storm using the Saffir-Simpson Scale's Extended Scale:

*Illustration 2: Saffir-Simpson Hurricane Scale*



*Illustration Source: NOAA*

- Category 1 Hurricane:** Winds 74 –95 mph. Very dangerous winds will produce damage. People, livestock, and pets struck by flying or falling debris could be injured or killed. Older (mainly pre-1994 construction) mobile homes could be destroyed, especially if they are not anchored properly as they tend to shift or roll off their foundations. Newer mobile homes that are anchored properly can sustain damage involving the removal of shingle or metal roof coverings, and loss of vinyl siding, as well as damage to carports, sunrooms, or lanais. Some poorly constructed frame homes can experience major damage, involving loss of the roof covering and damage to gable ends as well as the removal of porch coverings and awnings. Unprotected windows may break if struck by flying debris. Masonry chimneys can be toppled. Well-constructed frame homes could have damage to roof shingles, vinyl siding, soffit panels, and gutters. Failure of aluminum, screened-in, swimming pool enclosures can occur. Some apartment building and shopping center roof coverings could be partially removed. Industrial buildings can lose roofing and siding especially from windward corners, rakes, and eaves. Failures to overhead doors and unprotected windows will be common. Windows in high-rise buildings can be broken by flying debris. Falling and broken glass will pose a significant danger even after the storm. There will be occasional damage to commercial signage, fences, and canopies. Large branches of trees will snap, and shallow rooted trees can be toppled. Extensive damage to power lines and poles will likely result in power outages that could last a few to several days.
- Category 2 Hurricane:** Winds 96-110 mph. Extremely dangerous winds will cause extensive damage. There is a substantial risk of injury or death to people, livestock, and pets due to flying and falling debris. Older (mainly pre-1994 construction) mobile homes have a very high chance of being destroyed and the flying debris generated can shred nearby mobile homes. Newer mobile homes can also be destroyed. Poorly constructed frame homes have a high chance of having their roof structures removed especially if they are not anchored properly. Unprotected windows will have a high probability of being broken by flying debris. Well-constructed frame homes could sustain major roof and siding damage. Failure of aluminum, screened-in, swimming pool enclosures will be common. There will be a substantial percentage of roof and siding damage to apartment buildings and industrial buildings. Unreinforced masonry walls can collapse. Windows



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in high-rise buildings can be broken by flying debris. Falling and broken glass will pose a significant danger even after the storm. Commercial signage, fences, and canopies will be damaged and often destroyed. Many shallowly rooted trees will be snapped or uprooted and block numerous roads. Near-total power loss is expected with outages that could last from several days to weeks. Potable water could become scarce as filtration systems begin to fail.

- **Category 3 Hurricane:** Winds 111-129 mph. Devastating damage will occur. There is a high risk of injury or death to people, livestock, and pets due to flying and falling debris. Nearly all older (pre-1994) mobile homes will be destroyed. Most post-1994 mobile homes will sustain severe damage with potential for complete roof failure and wall collapse. Poorly constructed frame homes can be destroyed by the removal of the roof and exterior walls. Unprotected windows will be broken by flying debris. Well-built frame homes can experience major damage involving the removal of roof decking and gable ends. There will be a high percentage of roof covering and siding damage to apartment buildings and industrial buildings. Isolated structural damage to wood or steel framing can occur. Complete failure of older metal buildings is possible, and older unreinforced masonry buildings can collapse. Numerous windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Most commercial signage, fences, and canopies will be destroyed. Many trees will be snapped or uprooted, blocking numerous roads. Electricity and water will be unavailable for several days to a few weeks after the storm passes.
- **Category 4 Hurricane:** Winds 130 to 156 mph. Catastrophic damage will occur. There is a very high risk of injury or death to people, livestock, and pets due to flying and falling debris. Nearly all older (pre-1994) mobile homes will be destroyed. A high percentage of newer mobile homes also will be destroyed. Poorly constructed homes can sustain complete collapse of all walls as well as the loss of the roof structure. Well-built homes also can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Extensive damage to roof coverings, windows, and doors will occur. Large amounts of windborne debris will be lofted into the air. Windborne debris damage will break most unprotected windows and penetrate some protected windows. There will be a high percentage of structural damage to the top floors of apartment buildings. Steel frames in older industrial buildings can collapse. There will be a high percentage of collapse to older unreinforced masonry buildings. Most windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Nearly all commercial signage, fences, and canopies will be destroyed. Most trees will be snapped or uprooted, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Long-term water shortages will increase human suffering. Most of the area will be uninhabitable for weeks or months.
- **Category 5 Hurricane:** Winds 157 mph or higher. Catastrophic damage will occur. People, livestock, and pets are at very high risk of injury or death from flying or falling debris, even if indoors in mobile homes or framed homes. Almost complete destruction of all mobile homes will occur, regardless of age or construction. A high percentage of frame homes will be destroyed, with total roof failure and wall collapse. Extensive damage to roof covers, windows, and doors will occur. Large amounts of windborne debris will be lofted into the air. Windborne debris damage will occur to nearly all unprotected windows and many protected windows. Significant damage to wood roof commercial buildings will occur due to loss of roof sheathing. Complete collapse of many older metal buildings can occur. Most unreinforced masonry walls will fail which can lead to the collapse of the buildings. A high percentage of industrial buildings and low-rise apartment buildings will be destroyed. Nearly all windows will be blown out of high-rise buildings resulting in falling glass, which will pose a threat for days to weeks after the storm. Nearly all commercial signage, fences, and canopies will be destroyed. Nearly all trees will be snapped or uprooted,



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and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Long-term water shortages will increase human suffering. Most of the area will be uninhabitable for weeks or months.

Tornadoes are rated on the Enhanced Fujita Scale. Destruction, ranging from minor to catastrophic, is dependent upon the intensity, size, and duration of the tornado. Structures made of light materials such as mobile homes are most susceptible to damage. The following table shows the level of loss/damage associated with each tornado category of the EF scale.

Table 12: Fujita-Enhanced Fujita Scale Comparison

Fujita-Enhanced Fujita Scale Comparison			
Fujita (F) Scale		Enhanced Fujita (EF) Scale	
Fujita Scale	3-Second Gust Speed (MPH)	Enhanced Fujita Scale	3-Second Gust Speed (MPH)
F0	45-78	EF0	65-85
F1	79-117	EF1	86-109
F2	118-161	EF2	110-137
F3	162-209	EF3	138-167
F4	210-261	EF4	168-199
F5	262-317	EF5	200-234

Table Source: NOAA



Illustration 3: Enhanced Fujita Scale, Damage

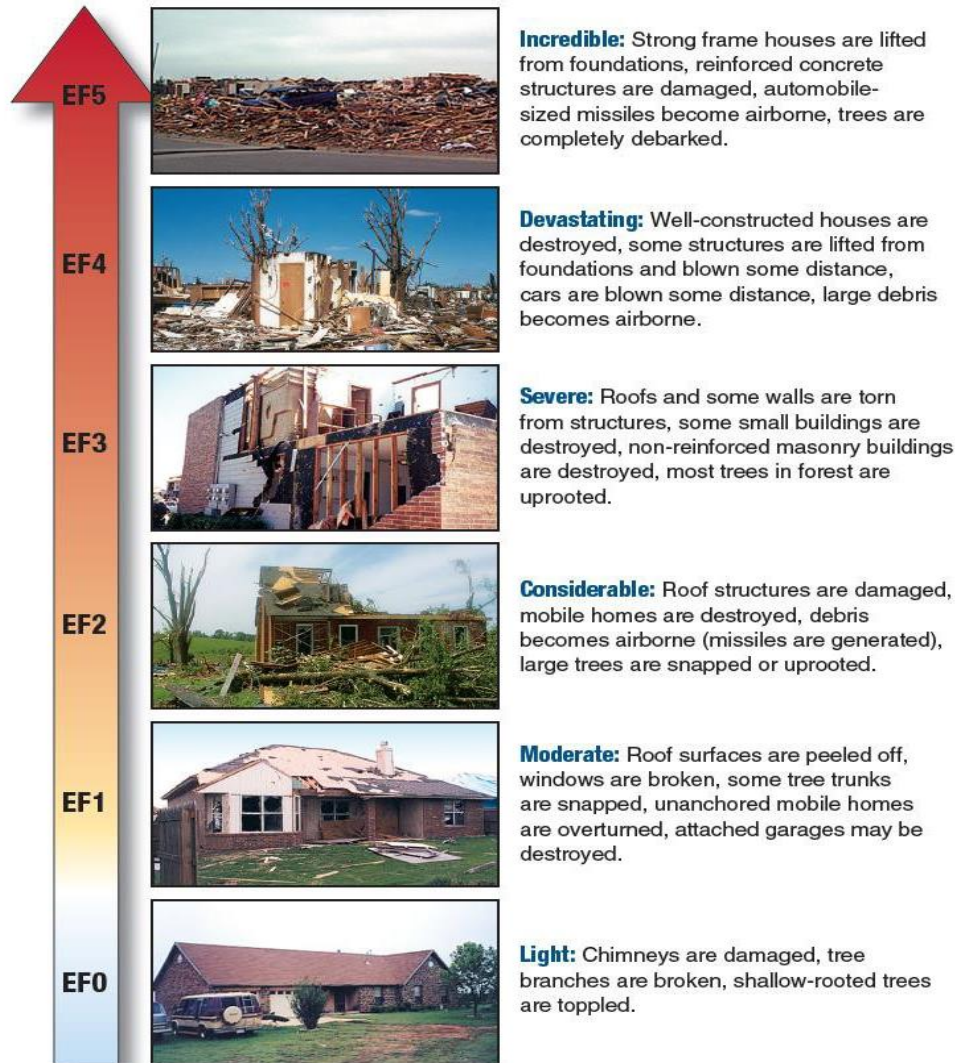


Illustration Source: FEMA

It is important to note how climate change affects the intensity and frequency of wind events (and their potential impacts). It is uncertain and is being studied intensively. For Georgia, until the impacts are better understood, the anticipated intensity and frequency of wind events will likely remain close to historical averages. However, damage to life and property will likely increase due to population and financial growth across the state, including DeKalb County.

### 4.3.3 – Previous Occurrences

#### Straight-Line Wind Events (Strong Winds, High Winds, Thunderstorms)

For this plan, hail and lightning damage will be included in this section. Between 1950 and 2019, significant straight-line wind events have impacted DeKalb County and the incorporated communities within its boundaries 261 times. These events caused four deaths, 12 injuries, and approximately \$18.628 million in property damage. Between January 1, 2016, and December 31, 2020, significant straight-line wind events have impacted DeKalb County and the incorporated communities within its boundaries 50 times. These events caused one death, two injuries, and approximately \$572,000 in damage.



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Table 13: Straight-Line Wind Events (1950-2020)

Straight-Line Wind Events (1950-2020)					
Decade	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
1950s	0	0	0	\$0	\$0
1960s	4	0	0	\$0	\$0
1970s	10	0	0	\$0	\$0
1980s	43	0	1	\$0	\$0
1990s	91	0	1	\$448K	\$0
2000s	108	3	6	\$16.873M	\$0
2010s	81	1	3	\$1.188M	\$0
2020	15	0	1	\$117K	\$0
<b>Total</b>	<b>352</b>	<b>4</b>	<b>12</b>	<b>\$18.628M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

Table 14: Straight-Line Wind Events (2016-2020)

Straight-Line Wind Events (2016-2020)					
Year	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
2016	11	1	0	\$130K	\$0
2017	9	0	0	\$187K	\$0
2018	10	0	1	\$55K	\$0
2019	5	0	0	\$83K	\$0
2020	15	0	1	\$117K	\$0
<b>Total</b>	<b>50</b>	<b>1</b>	<b>2</b>	<b>\$572K</b>	<b>\$0</b>
<b>Average</b>	<b>10</b>	<b>0.2</b>	<b>0.4</b>	<b>\$114.4K</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

**May 17, 2004, Dunwoody Lightning Event:** The Atlanta-Journal/Constitution reported that a 34-year-old man of Douglasville, who was installing a pool at a private residence, was struck, and killed by lightning while leaning against a truck outside at the site. The bolt of lightning struck the ground about 30 feet from where the individual was located at the time. Another individual with the same construction crew had his back singed during the time of this same lightning strike.

**June 27, 2004, Decatur Lightning Event:** The Atlanta Journal-Constitution reported that lightning struck and knocked over a large tree onto the Emory Wood Nursing Center on Oxford Road near Emory University. Four residents were trapped in the structure as a result and required hospitalization following the incident. One of the residents was wedged between a back wall and the tree where it had fallen on the nursing home.



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Later in the evening, all 38 residents of the home were evacuated. Lightning also struck several power lines and transformers in the area leaving several people without power during the evening.

**February 21, 2005, Druid Hills Hail Event:** An employee of the DeKalb County Water Department reported that hail ranging in size from pennies to greater than golf ball, on the order of 2.0 inches in diameter fell.

**July 10-11, 2005, DeKalb County Strong Wind Event:** Strong winds, associated with the remnants of Hurricane Dennis, affected much of west Georgia from the late evening hours on the 10th through the early morning hours of the 11th. Sustained winds during this period were mostly 15 to 25 mph, but some gusts to near 40 mph were reported. The strong winds combined with heavy rain and saturated ground resulted in many downed trees and power lines across west Georgia, mainly west of a line from Americus to Atlanta, to Chatsworth. Many power outages were reported overnight and into the early morning hours. A large, 40-inch diameter poplar tree was blown down onto a home, killing a man sleeping in his bed. Several trees and power lines were blown down throughout the county during the night. Estimated Damage: \$50,000

**January 23, 2016, DeKalb County Strong Wind Event:** At approximately 12:30 PM EST northwest winds of 20 to 25 MPH with gusts 30 to 40 MPH caused a tree to fall at the Mystery Valley Golf Club in Lithonia. The tree struck a United States Postal Service vehicle driven by a 36-year-old male postal worker. The vehicle left the roadway and travelled down a hill before striking another tree. DeKalb County Fire Department officials believe the impact from the falling tree, which did not appear to be in good health, likely caused the postal worker's death.

**March 21, 2017, Druid Hills Thunderstorm Wind Event:** The DeKalb County Emergency Manager reported several trees blown down from North Druid Hills to Clarkston. Trees were blown down on cars and houses on Verona Drive and Tanner Drive and a large tree fell on a home on Coralwood Drive. No injuries were reported.

**August 9, 2017, DeKalb County Strong Wind Event:** Strong winds associated with a large area of persistent showers produced isolated reports of damage in DeKalb County, including a large tree that fell on an apartment building and a car on Northeast Expressway and another tree blown down across the intersection of LaVista Road and North Druid Hills Road blocking traffic in all directions. No injuries were reported.

**June 11, 2018, Oak Grove Thunderstorm Wind Event:** The DeKalb County Emergency Manager reported trees blown down from around the intersection of Sycamore Street and East Ponce De Leon Avenue to Sams Street and Shadowmoor Drive at South Columbia Drive. One tree fell onto a house at the Sycamore Street location with one person injured. No information was available concerning the extent of their injuries.

**August 1, 2019, Pittsburg Thunderstorm Wind Event:** The DeKalb County Emergency Manager and the local broadcast media reported dozens of trees and a few power lines blown down in the Embry Hills area along Embry Hills Drive. A wind gust of 57 mph was measured by Georgia DOT equipment in this area as well. Some trees fell onto homes and automobiles.

### Tropical System Events

The information used to develop the tropical system events section is taken directly from the NOAA/NCEI database because it provides the most complete repository for natural hazards in the United States. The method for which NOAA/NCEI reports tropical system impacts varies. Inland tropical system impacts can cause flooding, wind damage, and tornadoes. Events associated with these impacts are sometimes categorized as flood, wind damage, or tornadoes and not with the associated tropical system. So, while the number below reflects NOAA/NCEI data, the tropical system events for DeKalb County are higher.

Between 1950 and 2019, tornado events have impacted DeKalb County and the incorporated communities within its boundaries 16 times. These events caused no deaths, no injuries, and approximately \$12 million in property damage. Between January 1, 2016, and December 31, 2020, tropical events have impacted





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DeKalb County and the incorporated communities within its boundaries two times. These events caused no deaths, no injuries, and approximately \$12 million in damage.

Table 15: Tropical System Events (1950-2020)

Tropical System Events (1950-2020)					
Decade	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
1950s	0	0	0	\$0	\$0
1960s	0	0	0	\$0	\$0
1970s	0	0	0	\$0	\$0
1980s	0	0	0	\$0	\$0
1990s	0	0	0	\$0	\$0
2000s	13	0	0	\$0	\$0
2010s	2	0	0	\$12M	\$0
2020	1	0	0	\$0	\$0
<b>Total</b>	<b>16</b>	<b>0</b>	<b>0</b>	<b>\$12M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

Table 16: Tropical System Events (2016-2020)

Tropical System Events (2016-2020)					
Year	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
2016	0	0	0	\$0	\$0
2017	1	0	0	\$12M	\$0
2018	0	0	0	\$0	\$0
2019	0	0	0	\$0	\$0
2020	1	0	0	\$0	\$0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>\$12M</b>	<b>\$0</b>
<b>Average</b>	<b>0.4</b>	<b>0</b>	<b>0</b>	<b>\$2.4M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

**September 11, 2017, Hurricane Irma:** On the morning of August 30th Tropical Storm Irma developed rapidly over the eastern Atlantic Ocean, just west of the Cape Verde Islands. Tropical Irma quickly strengthened as it moved west, reaching hurricane strength by the morning of August 31st. Hurricane Irma continued to move steadily westward across the Atlantic Ocean, intensifying to category 4 storm on the Saffir-Simpson scale as it approached the northern Leeward Islands of the Lesser Antilles on September 4th. By the morning of the September 5th Hurricane Irma had reached category 5 and remained so into the morning of September 8th as it moved through the northern Antilles and approached the Bahamas. Irma



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continued moving west northwest as a category 4 storm before turning north over the Florida Straits and crossing the Florida Keys on the 9th and 10th. Hurricane Irma made landfall over southwest Florida as a category 4 storm during the evening of the 10th and travelled north northwest through western Florida before weakening to a category 1 hurricane as it crossed into southwest Georgia the afternoon of September 11th. Tropical Storm Irma crossed southwest Georgia through the day of the 11th before weakening to a tropical depression over north Alabama early on the morning of the 12th. Tropical storm strength winds produced widespread damage across central and north Georgia through the day of September 11th and into the early morning hours of the 12th. Isolated flash flooding associated with Tropical Storm Irma was reported as well.

The DeKalb County Emergency Manager reported hundreds of trees and many power lines blown down across the county. 267 homes and businesses were damaged, mainly by falling trees and large limbs, with 65 of them reported destroyed or sustaining major damage. Over 200 roads were blocked by downed trees, power lines and other debris with over 106 tons of debris cleared. Estimates are that over half of all customers lost electricity in the county for varying periods of time. A wind gust of 47 mph was measured at DeKalb-Peachtree Airport and a gust of 72 mph was measured on top of Stone Mountain, around 800 feet above the surrounding terrain. Radar estimated between 3 and 6.5 inches of rain fell across the county with 6.32 inches measured in Decatur. One firefighter received minor injuries while clearing debris. Around \$11 million in insured losses were reported.

**October 28-29, 2020, Tropical Storm Zeta:** During the late evening of October 28th through the morning of October 29th, Tropical Storm Zeta swept rapidly across north Georgia producing widespread wind damage and isolated flooding across north and portions of central Georgia. Around 1.5 million customers lost electricity for some period, some for several days.

Winds gusted between 35 and 55 mph for several hours. A gust to 47 mph was recorded at DeKalb-Peachtree Airport (KPDK) at 3:54 AM EST and a gust of 54 mph was recorded near Emory University. Numerous trees and power lines were blown down across the county.

### Tornado Events

Between 1950 and 2019, tornado events have impacted DeKalb County and the incorporated communities within its boundaries 13 times. These events caused one death, two injuries, and approximately \$28.950 million in property damage. Between January 1, 2016, and December 31, 2020, tornado events have impacted DeKalb County and the incorporated communities within its boundaries two times. These events caused no deaths, no injuries, and approximately \$265,000 in damage.

Table 17: Tornado Events (1950-2020)

Tornado Events (1950-2020)					
Decade	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
1950s	1	0	1	\$25K	\$0
1960s	2	0	1	\$500K	\$0
1970s	4	0	1	\$3.025M	\$0
1980s	1	0	0	\$25K	\$0
1990s	1	1	0	\$25M	\$0
2000s	1	0	0	\$50K	\$0
2010s	3	0	0	\$325K	\$0



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<b>2020</b>	0	0	0	\$0	\$0
<b>Total</b>	<b>13</b>	<b>1</b>	<b>3</b>	<b>\$28.950M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

Table 18: Tornado Events (2016-2020)

Tornado Events (2016-2020)					
Year	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
<b>2016</b>	0	0	0	\$0	\$0
<b>2017</b>	1	0	0	\$15K	\$0
<b>2018</b>	0	0	0	\$0	\$0
<b>2019</b>	0	0	0	\$0	\$0
<b>2020</b>	1	0	0	\$250K	\$0
<b>Total</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>\$265K</b>	<b>\$0</b>
<b>Average</b>	<b>0.4</b>	<b>0</b>	<b>0</b>	<b>\$53K</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

**June 5, 1950, Tornado:** An F1 tornado touched down in eastern DeKalb County. The tornado caused one injury and approximately \$25,000 in property damage.

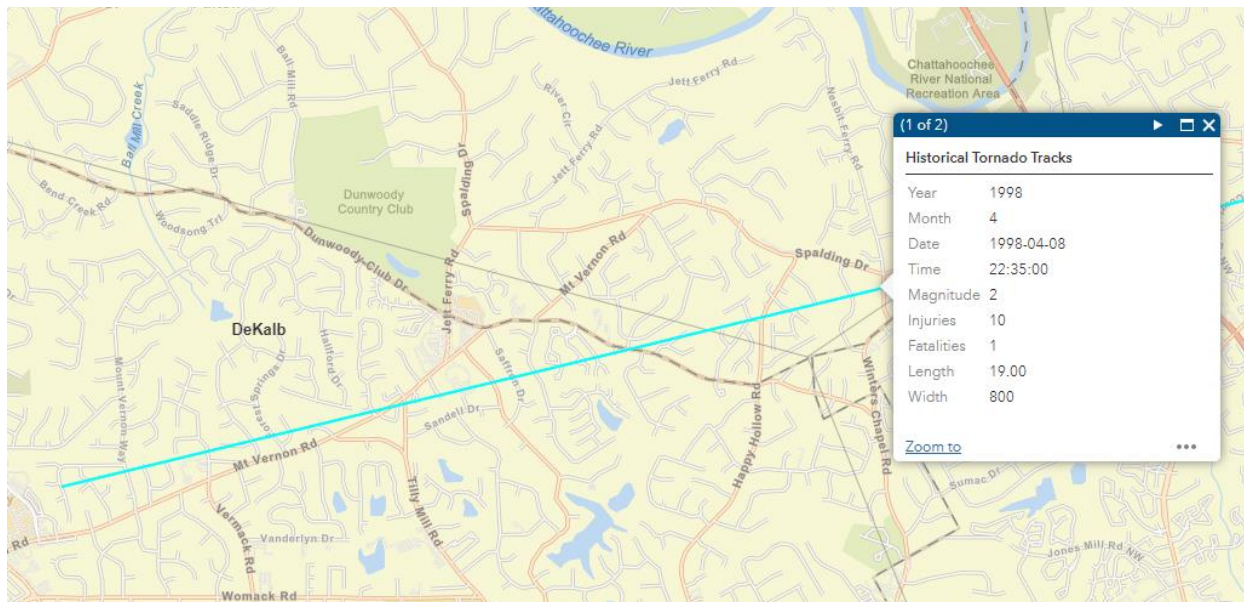
**June 30, 1966, Tornado:** An F1 tornado moved through DeKalb County causing one injury and approximately \$250,000 in property damage.

**May 14, 1976, Tornado:** An F1 tornado touched down briefly in DeKalb County at 7:00 p.m. The tornado damaged a self-service gas station, injuring one person. At Interstate 285 and Flat Shoals Road, the tornado flipped a tractor-trailer.

**May 8, 1978, Tornado:** At 5:20 p.m., an F2 tornado moved northeast from Forest Park in Clayton County to southern DeKalb County. Many homes had roof damage, and two apartment complexes and a shopping center were severely damaged. The tornado caused approximately \$2.5 million in property damage.

**April 8, 1998, Dunwoody Tornado:** An F2 tornado touched down in Dunwoody 11:35 p.m. The damage path began just northeast of Perimeter Mall in Dunwoody and extended well into Gwinnett County. There was significant widespread damage to trees and homes. One person was killed when a tree fell on his home. DeKalb College's north campus was closed after several buildings sustained major damage. The tornado, which is the most costly and deadly in DeKalb County in the past 70 years, caused approximately \$25 million in damage.

Map 4: April 8, 1998, Dunwoody Tornado



Data Source: FEMA National Integration Center Header Resilience Analysis and Planning Tool (RAPT)

**May 4, 2017, Tornado:** A National Weather Service survey team found that an EF0 tornado with maximum wind speeds of 70 MPH and a maximum path width of 80 yards touched down near Forest Glen Circle in central DeKalb County where it broke several large branches and uprooted a few trees. The tornado moved northeast crossing I-285, North Decatur Road, Dial Road and Greenridge Circle snapping or uprooting a few more trees before ending just past Greenridge Circle. The tornado caused approximately \$15,000 in property damage.

**October 10, 2020, Tornado:** During the afternoon and evening of October 10th, as the remnants of Hurricane Delta passed northwest of Georgia, moisture from the Gulf of Mexico spread across the area. Several weak tornadoes occurred in north and central Georgia in addition to pockets of heavy rainfall and flooding across the Atlanta metropolitan area and portions of northeast Georgia.

A National Weather Service survey team found that an EF0 tornado with maximum wind speeds of 80 mph and a maximum path width of 250 yards travelled 1.7 miles across a portion of south-central DeKalb County. The tornado touched down just north of I-20 near Wesley Chapel Road and Cross Lane, snapping several small trees, and pulling a few shingles off of roofs. The tornado moved north northwest causing more extensive damage between Lindsey Drive and Oak Valley Road. In this residential area, including Sherwood Avenue and Hanes Drive, multiple large trees were snapped or uprooted with several falling on homes and taking down utility/power lines. The tornado weakened as it continued north northwest with several additional small trees snapped along its path over Belvedere Square and just across Covington Highway along South Indian Creek Drive. No injuries were reported. The tornado caused approximately \$250,000 in property damage.



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### 4.3.3A – Probability of Future Events, Wind

Table 19: Probability of Future Events, Wind

Probability of Future Events, Wind			
Decade	Event		
	Straight-Line Wind	Tropical System	Tornado
1950s	0	0	1
1960s	4	0	2
1970s	10	0	4
1980s	43	0	1
1990s	91	0	1
2000s	108	13	1
2010s	81	2	3
2020	15	1	0
Categorical Totals	352	16	13
Categorical Years	70	70	70
Categorical Averages	502% Highly Likely	23% Likely	19% Likely
Total Events = 381		Total Years = 210	
Likelihood of a Wind Event Each Year = 181%			

Data Source: NOAA/NCEI Storm Events Database

Based on this data, it is **HIGHLY LIKELY** a wind event will occur every year in DeKalb County and the incorporated jurisdictions within its boundaries.

#### 4.3.4 – Vulnerability of Community Assets

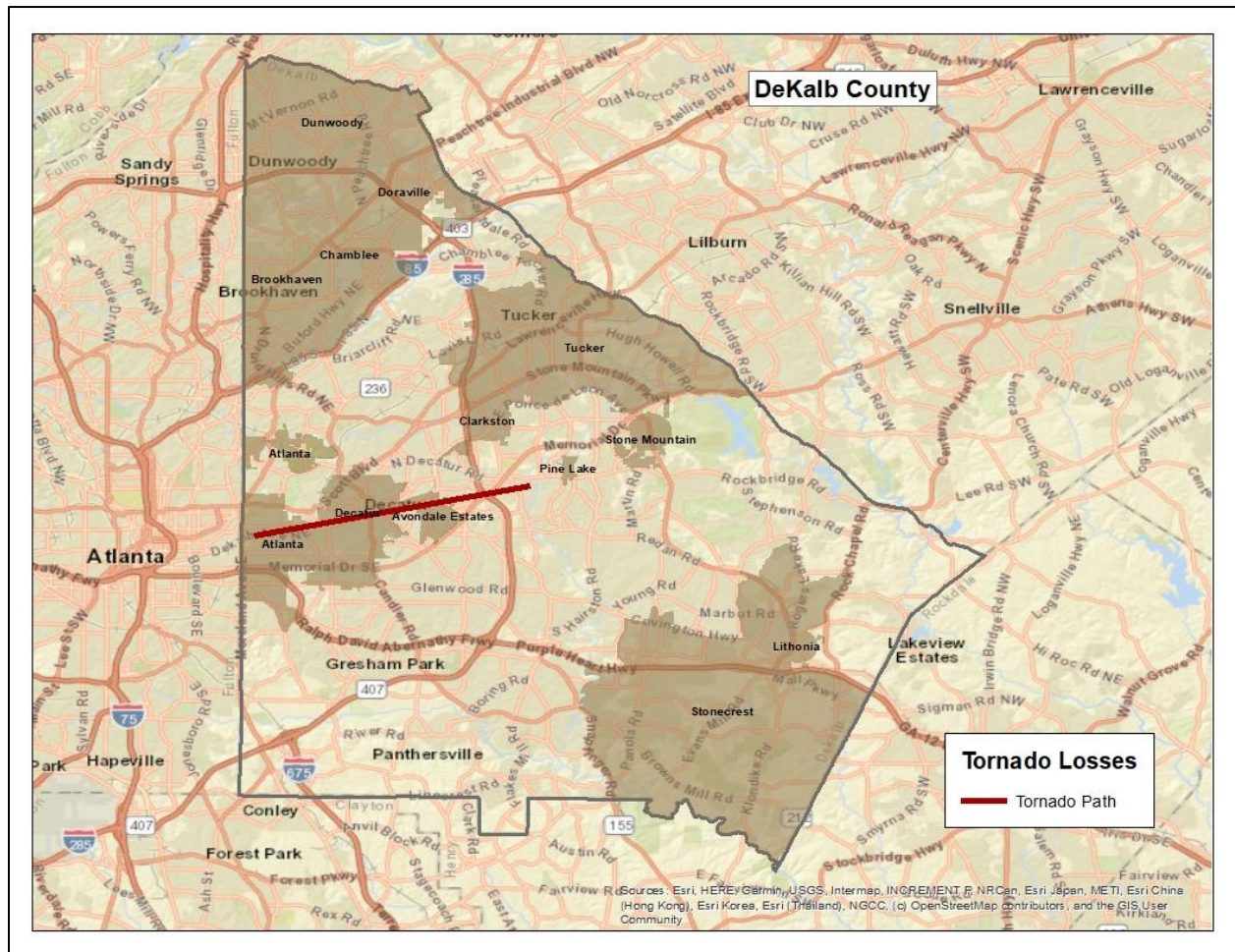
**Note:** As part of the hazard analysis conducted by the University of Georgia's Carl Vinson Institute of Government, separate hypothetical scenarios involving a tornado and a tropical storm impacting DeKalb County were run using Hazus-MH. The hypothetical tropical storm scenario involved maximum winds of 67 miles per hour. For the hypothetical tornado scenario, an EF-3 tornado was modeled to illustrate potential impacts to DeKalb County.





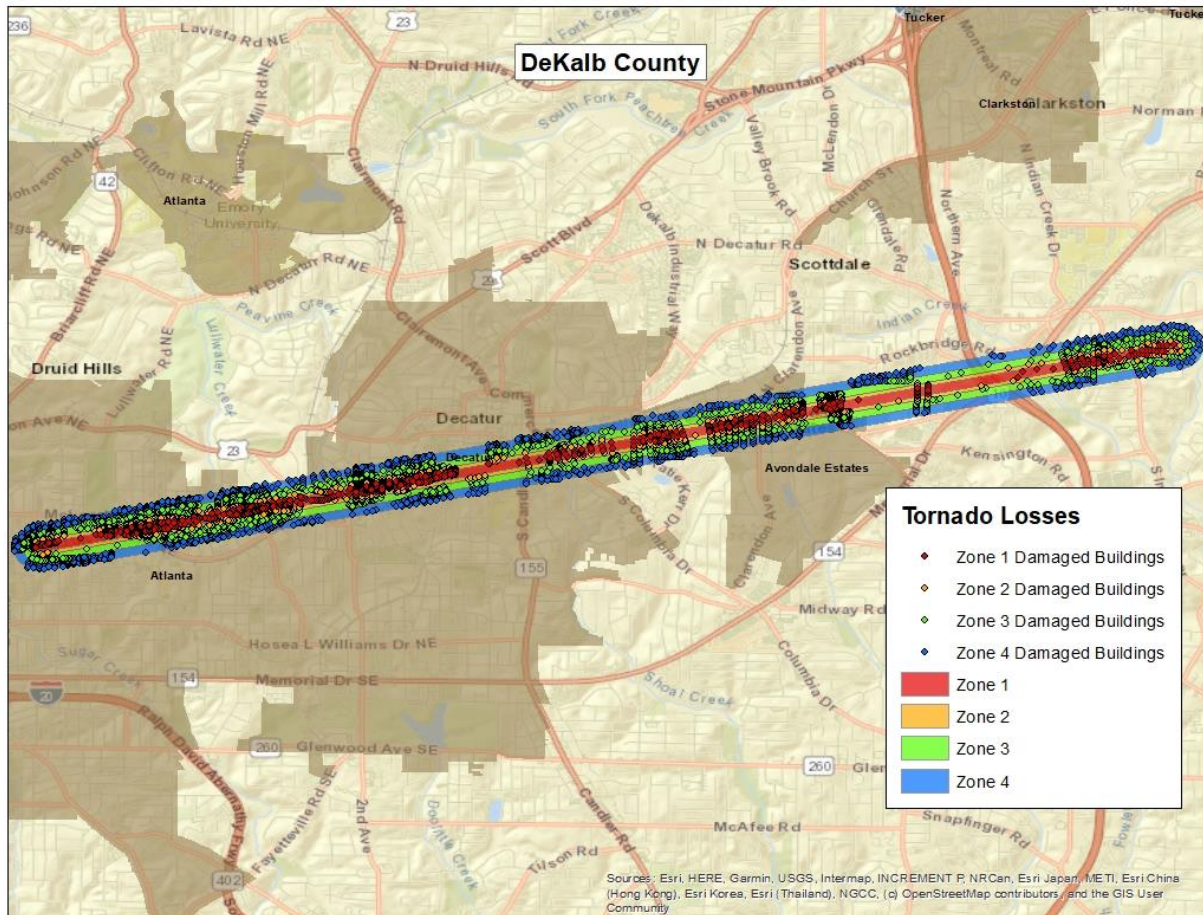
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Map 5: Hypothetical EF3 Tornado Path in DeKalb County



Map Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

Map 6: Modeled EF3 Tornado Damage Buffers in DeKalb County



Map Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

### People

All of DeKalb County's population are susceptible to wind hazards. Low-income individuals are more vulnerable to wind hazards. In its reported titled, "A Disaster in the Making, Addressing the Vulnerability of Low-Income Communities to Extreme Weather," the Center for American Progress argues that low-income people are disproportionately affected by extreme weather due to shoddy housing construction and the age of affordable housing (<https://www.americanprogress.org/wp-content/uploads/2013/08/LowIncomeResilience-2.pdf>). Low-income individuals also experience greater difficulties in recovering from wind hazard impacts. According to U.S. Census Bureau data, 15.1% of DeKalb County's population live in poverty. This represents 113,148 people. The cities of Lithonia (38.9%), Clarkston (30.9%), and Doraville (22.8%) have the highest levels of poverty in DeKalb County. The DeKalb County 2021 Comprehensive Plan 5-Year Update notes that poverty rates have increased in certain sections of central and south DeKalb County (<https://www.dekalbcountyga.gov/planning-and-sustainability/2021-comprehensive-plan-5-year-update>).

Individuals with access and functional needs are more vulnerable to wind hazard impacts. This may include children, the elderly, they physically or mentally disabled, non-English speakers, the medically or chemically dependent, and the transportation disadvantaged ([https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook\\_03-2013.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf)). In DeKalb County, this includes the following:

- Individuals with a disability: 10.2% (75,923 people)





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- Persons 65 years and over: 11.9% (89,507 people)
- Persons under 9 years: 13.5% (101,416 people)
- Speak English less than "very well" (age 5 years+): 8.7% (60,536 people)
- Households with no vehicles available: 8.6% (24,418 households)

The City of Stonecrest (11.4%) has the highest percentage of individuals with a disability. The City of Avondale Estates (23.4%) has the highest ratio of population aged 65 years or older. The City of Lithonia (22.3%), City of Clarkston (18.3%), and City of Decatur (18.2%) have the greatest percentage of people under 9 years. The City of Doraville (42.4%), City of Clarkston (40.9%), and City of Chamblee (28.7%) have the highest percentage of people who speak English less than "very well." The City of Lithonia (14.7%) and City of Clarkston (14.3%) have the highest ratio of households with no vehicle available.

Housing is also an important factor in determining the vulnerability of people to wind hazard impacts. There are indicators of increased vulnerability of some people in DeKalb County to wind hazard impacts due to housing characteristics. Many older multi-family developments are suffering from physical deterioration and are often concentrated in areas with higher poverty rates. There are 1522 people who reside in mobile homes, vans, boats, or recreational vehicles in DeKalb County. Of this number, Brookhaven (98), Chamblee (84), and Dunwoody (60) have the highest number of residents residing in these structures. This is important to note because these structures are much more vulnerable to tornadoes than site-built homes. Mobile homes and vehicles are not safe in any magnitude of tornado.

This data, retrieved from the American Community Survey and the DeKalb County 2021 Comprehensive Plan 5-Year Update, provides insight into certain characteristics of DeKalb County that are likely indicators of vulnerability. Based on this data, the greatest population vulnerabilities to wind hazards in DeKalb County are in the City of Clarkston, the City of Lithonia, and unincorporated areas of the county.

As part of the hypothetical tropical storm scenario, Hazus-MH estimates the number of households evacuated from buildings with severe damage from high velocity winds as well as the number of people who will require short-term sheltering. Since the 1% chance storm event for DeKalb County is a tropical storm, the resulting damage is not enough to displace households or require temporary shelters

### **Vulnerability of the Economy**

The leading industries in DeKalb County are Healthcare and Social Services (14.9% jobs), Retail Trade (10.9% of jobs), Accommodations and Food Services (7.2% of jobs), and Administrative and Support and Waste Management and Remediation Services (7.2% of jobs). Educational Services is another important industry in DeKalb County as it provides the fifth largest percentage of jobs (6.6%) and the highest average weekly wages of all industries (\$2105). The private sector provides 85.6% of employment, while the Federal, State, and local governments provide 14.4% of DeKalb County employment (<https://explorer.gdol.ga.gov/vosnet/mis/Profiles/Counties/DeKalb.pdf>). The largest employers in DeKalb County are, (1) Centers for Disease Control and Prevention (CDC); (2) Veterans Affairs Medical Center Atlanta; (3) Emory University Hospital; (4) Emory DeKalb Medical; (5) Children's Healthcare of Atlanta; (6) AT&T Mobility LLC; (7) State Farm Insurance Company/Atlanta Perimeter; (8) InterContinental Hotels Group Inc; (9) AirWatch LLC; and (10) Georgia Regional Hospital Atlanta (<https://www.dekalbchamber.org/why-dekalb/>).

All sectors of DeKalb County's economy are susceptible to the impacts of wind hazards. The loss of any of DeKalb County's leading industries could severely disrupt the community and its ability to recover from a disaster. Given the significance of the Healthcare industry in DeKalb County, a wind-related disaster impacting one of the community's hospitals would severely stress the capabilities of the community to respond to the medical needs of the community. The CDC, located in DeKalb County, is a Federal agency under the United States Department of Health and Human Services which works to protect America from health, safety and security threats, both foreign and in the United States





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(<https://www.cdc.gov/about/organization/mission.htm>). Its loss would not only affect DeKalb County's economy but would affect the entire nation.

### Vulnerability of the Built Environment

The built environment includes infrastructure systems, critical facilities, and cultural resources. DeKalb County and each of its participating jurisdictions have developed a list of infrastructure and critical facilities which are vital to the community. The National Park Service's National Register of Historic Places is the official list of the Nation's historic places worthy of preservation.

Infrastructure systems are critical for life safety and economic viability and include transportation, power, communication, and water and wastewater systems. Critical facilities are structures and institutions which are necessary for the community's response to and recovery from emergencies. These critical facilities must continue to operate during and following disasters to reduce the severity of impacts and accelerate recovery. Appendix C of this plan lists the community's infrastructure and critical facilities. Appendix C of this plan lists the places in DeKalb County which are part of the National Register of Historic Places and are considered important cultural resources.

Considering the entire planning area is susceptible to wind hazard impacts, increased development and population growth can reasonably translate to exposure. The DeKalb County 2021 Comprehensive Plan 5-Year Update visualizes the development of three types of Activity Centers: Neighborhood Centers, Town Centers, and Regional Centers. There are 46 Activity Centers countywide. In addition, the plan includes residential designations: Rural, Suburban, and Traditional. DeKalb County's Future Land Use Map can be accessed via <https://dekalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584>.

The hypothetical tropical storm scenario was used to analyze impacts to the built environment in DeKalb County. Buildings in DeKalb County are vulnerable to storm events, and the cost to rebuild may have significant consequences to the community. The following table shows a summary of the results of wind-related building damage in DeKalb County for the tropical storm. The loss ratio expresses building losses as a percentage of total building replacement cost in the county.

*Table 20: Tropical Storm-Damaged Essential Facility Losses*

Classification	Number of Buildings Damaged	Total Building Damage	Total Economic Loss <sup>1</sup>	Loss Ratio
Tropical Storm	232	\$53,991,190	\$69,558,650	0.04%

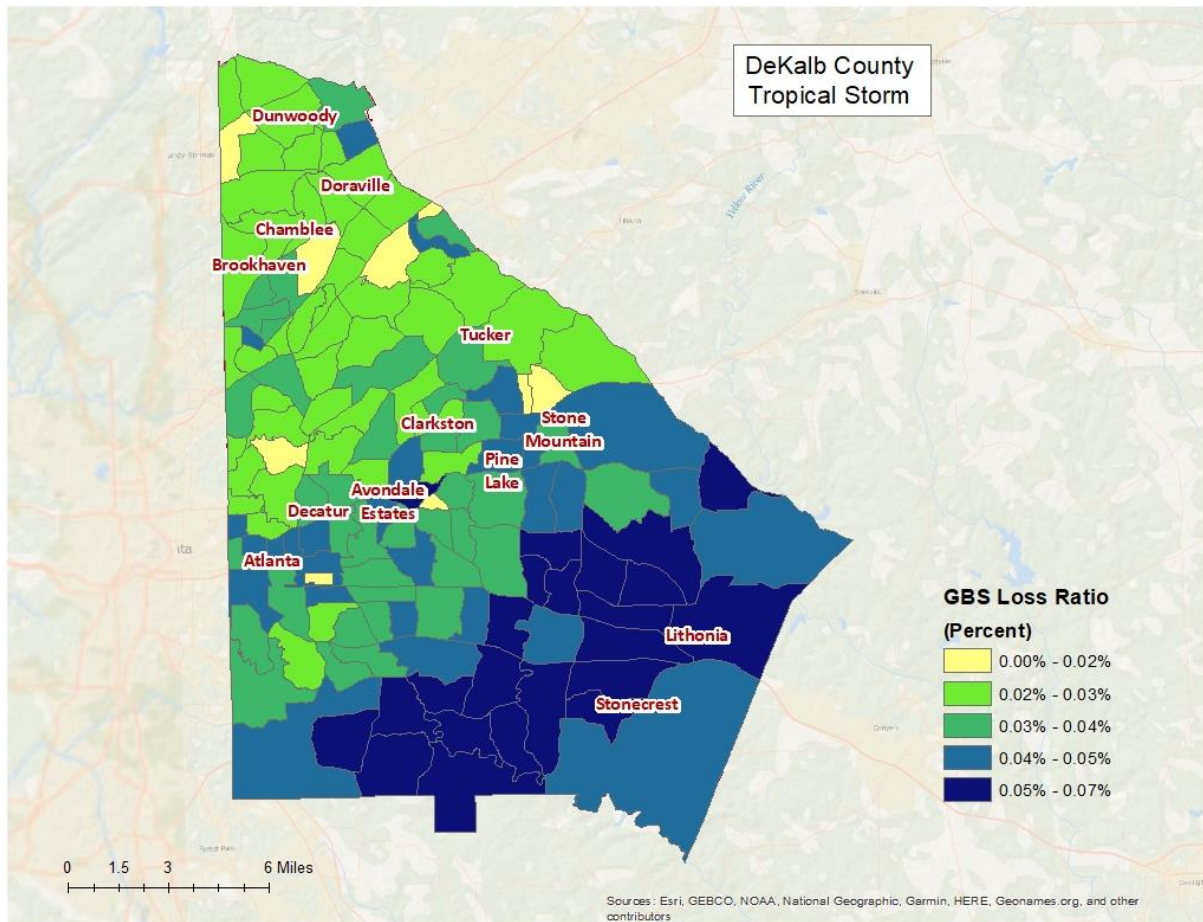
*Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

Note that wind damaged buildings are not reported by jurisdiction. This is because census tract boundaries – upon which hurricane building losses are based – do not closely coincide with jurisdiction boundaries.



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Map 7: Tropical Storm Wind Building Loss Ratios



Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

For the hypothetical tornado scenario, the analysis estimated that approximately 3708 buildings could be damaged, with estimated building losses of \$745 million. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The overlay was performed against parcels provided by DeKalb County that were joined with Assessor records showing estimated property replacement costs. The Assessor records often do not distinguish parcels by occupancy class if the parcels are not taxable and thus the number of buildings and replacement costs may be underestimated. The results of the analysis are depicted in the table below.

Table 21: Estimated Tornado Building Losses by Occupancy Type

Occupancy	Buildings Damaged	Building Losses
Commercial	184	\$29,799,298
Education	6	\$4,490,370
Industrial	23	\$2,407,978
Religious	2	\$44,173
Residential	3,493	\$707,780,592
<b>Total</b>	<b>3,708</b>	<b>\$744,522,411</b>

Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan



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Essential facilities are also vulnerable to storm events, and the potential loss of functionality may have significant consequences to the community. Hazus-MH identified the essential facilities that may be moderately or severely damaged by a tropical storm or tornado. The results are compiled in the tables below.

*Table 22: Tropical Storm-Damaged Essential Facility Losses*

Classification	Facilities At Least Moderately Damaged > 50%	Facilities Completely Damaged > 50%	Facilities with Expected Loss of Use (< 1 day)
Tropical Storm	1	0	203

*Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

*Table 23: Estimated Tornado Essential Facilities Damaged*

Facility	Amount of Damage
Agnes Scott College	Major Damage
Decatur High School	Minor Damage
Dunaire Elementary School (PK-5)	Minor Damage
Renfroe Middle School	Minor Damage
Talley Street Upper Elementary School	Minor Damage
Fire Station 3	Minor Damage

*Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

According to the Georgia Department of Education, Decatur High School's enrollment was approximately 1,732 students, Dunaire Elementary (PK-5) School's enrollment was approximately 409 students, Renfroe Middle School's enrollment was approximately 1,339 students, and Talley Street Upper Elementary School's enrollment was approximately 697 students as of October 2021. Agnes Scott College's enrollment was approximately 1,014 students as of Fall Semester 2020. Depending on the time of day, a tornado strike as depicted in this scenario could result in significant injury and loss of life. In addition, arrangements would have to be made for the continued education of the students in another location.

Hazus-MH estimates the amount of debris that will be generated by tropical storm force-winds and quantifies it into three broad categories to determine the material handling equipment needed:

- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in the following table. The amount of tropical storm wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

*Table 24: Estimated Tornado Essential Facilities Damaged*

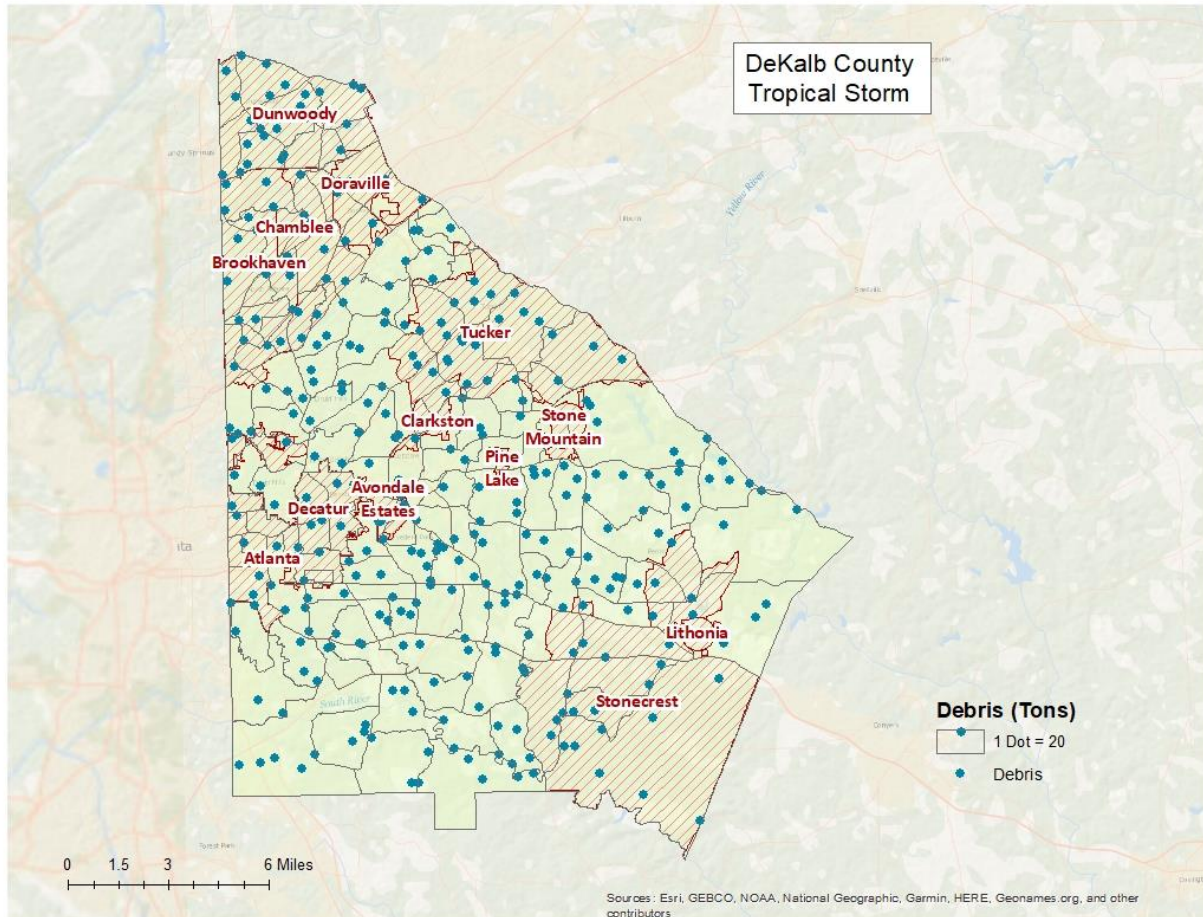
Classification	Brick, Wood, and Other	Reinforced Concrete and Steel	Eligible Tree Debris	Other Tree Debris	Total
Tropical Storm	757	0	5,922	3,259	9,938

*Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*



The following figure shows the distribution of all wind related debris resulting from a Tropical Storm. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.

*Map 8: Tropical Storm Wind-Related Debris Weight (Tons)*



*Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan*

### Vulnerability of Natural Environment

The 2021 DeKalb County Comprehensive Plan – 5 Year Update lists two significant and unique geological features. Soapstone Ridge, located in the southwestern portion of the county, contains aboriginal steatite quarries which are of archeological and historic significance. Stone Mountain, located in the eastern area of the county, is the largest exposed granite outcropping in the world. The 2021 DeKalb County Comprehensive Plan – 5 Year Update also notes there are various Federally protected wetlands in the area, mostly in the flood prone areas of perennial creeks. These natural environmental resources are minimally vulnerable to wind hazard impacts.

#### 4.3.5 – Risk Analysis

All community assets in DeKalb County and the jurisdictions within its boundaries are equally exposed to wind hazard impacts. FEMA's National Risk Index (NRI) estimates that DeKalb County and the jurisdictions within its boundaries have \$85,060,191,000 worth of structures exposed to wind hazards each year. The NRI projects annual losses of 0.76 lives and \$9,813,922 worth of structures to wind hazard impacts each year. This includes impacts associated with strong winds, tornadoes, and thunderstorms. According to the NRI, the most significant projected losses to population and structures are from tornadoes (0.52 deaths and



## SECTION 4: RISK ASSESSMENT

\$7,476,579). In fact, the NRI projects tornadoes to be costliest hazard in terms of structure loss and the second costliest hazard in terms of lives lost.

DeKalb County's most costly wind event in the past 70 years was the April 8, 1998, Dunwoody Tornado. The F2 tornado killed one person and caused approximately \$25 million in damage. A similar event now would cost \$39,690,817. A violent tornado (EF4+) would likely cause more deaths, injuries, and damage. An analog for a worst-case scenario is the May 23, 2013, Moore, Oklahoma Tornado. In 2013, Moore, Oklahoma had a population of just over 55,000. That is a about 6,000 more than Dunwoody. On May 23, 2013, an EF5 tornado struck Moore, Oklahoma. The tornado killed 24 people, injured 387 people, destroyed an estimated 1,150 homes, and created an estimated \$2 billion in damage.

Table 25: Risk Analysis of Community Lifeline Systems to Wind, DeKalb County

Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Search and Rescue	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Government Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage critical facilities and historical sites</li></ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>disrupt power and communications to emergency operations centers</li> <li>disrupt essential government functions</li> <li>cause short-term or long-term school cancellations.</li> </ul>
	Community Safety	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage flood control systems</li> <li>create secondary hazards</li> </ul>
<b>Food, Water, Shelter</b>	Food	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>disrupt commercial food distribution and supply chains</li> <li>affect commercial and home perishable food supplies</li> </ul>
	Water	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>generate secondary hazards which can contaminate drinking water systems</li> <li>damage wastewater systems</li> </ul>
	Shelter	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage homes</li> <li>damage shelters</li> <li>damage lodging facilities</li> </ul>
	Agriculture	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure livestock</li> <li>damage crops</li> <li>damage farm structures and equipment</li> </ul>
<b>Health and Medical</b>	Medical Care	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage hospitals, pharmacies, long-term care facilities, and veterinary clinics</li> <li>disrupt power and communications</li> </ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>contaminate water supply, affecting the provision of care</li> <li>expend resources</li> </ul>
	Patient Movement	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>damage facilities and equipment</li> <li>disrupt responder communications</li> <li>damage or block transportation routes</li> <li>expend resources</li> </ul>
	Public Health	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage facilities</li> <li>disrupt power and communications</li> <li>expend resources</li> </ul>
	Fatality Management	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources</li> <li>damage facilities and equipment</li> <li>disrupt power and communications</li> </ul>
	Medical Supply Chain	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li> <li>damage or block transportation routes</li> </ul>
<b>Energy</b>	Power (Grid)	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage generation systems</li> <li>damage transmission systems</li> <li>damage distribution systems</li> </ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
	Fuel	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage fuel storage resources</li> <li>• damage pipelines</li> <li>• damage fuel distribution locations</li> </ul>
Communications	Infrastructure	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or cause wireless systems to become overburdened</li> <li>• damage cable and wireline systems</li> <li>• damage or disrupt broadcast and satellite systems</li> <li>• damage or cause internet systems to become overburdened</li> </ul>
	Alerts, Warnings, and Messages	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage physical warning systems</li> <li>• disrupt the delivery of emergency alerts and warnings</li> </ul>
	911 and Dispatch	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage public safety answering points or dispatch centers</li> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Responder Communications	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Finance	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage banking facilities and equipment</li> <li>• disrupt communications</li> </ul>
Transportation	Highway/Roadway	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or block roads and bridges</li> </ul>
	Mass Transit	<b>Moderate Risk.</b> Impacts may:





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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>• damage buses or trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Railway	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage freight or passenger trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Aviation	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage airports</li> <li>• damage aircraft</li> <li>• delay routes</li> </ul>
	Maritime	<b>No Risk.</b>
<b>Hazardous Materials</b>	Facilities	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate oil/hazardous materials/toxic incidents from fixed facilities</li> <li>• damage facilities</li> <li>• disrupt power supply to facilities</li> </ul>
	Hazmat, Pollutants, Contaminants	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate oil/hazardous materials/toxic incidents from non-fixed facilities, rail, and roadways</li> </ul>



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### 4.3.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
<b>W1</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, over a quarter of DeKalb County residents either live below the poverty line and/or have access and functional needs.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 25% of residents in DeKalb County have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance recovering from the event.
<b>W2</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 23.4% of Avondale Estates residents are aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a quarter of the City of Avondale's residents are at a greater risk for injury due to a high wind event and may require greater assistance recovery from the event.
<b>W3</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 22.4% of Brookhaven residents are children, of which 20% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Brookhaven has a large population of children, of which about 20% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.
<b>W4</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 28.7% of Chamblee residents speak English less than "very well".	Individuals who don't speak English well are more vulnerable to disasters. The City of Chamblee has a large population of residents that do not speak English well and are therefore at a greater risk of injury due to a high wind event.
<b>W5</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Clarkston, 30.9% of residents live below the poverty line, 32.4% are children, 40.9% do not speak English "very well", and 14.3% of households have no vehicle available.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Clarkston have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
W6	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 32.2% of Decatur residents are children, of which 9.1% of live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Decatur has a large population of children, of which 9.1% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.
W7	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Doraville, 22.8% of residents live below the poverty line, and 42.4% speak English less than “very well”.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Doraville have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W8	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 21.9% of Dunwoody residents are children, of which 10.8% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Dunwoody has a large population of children, of which about 11% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.
W9	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Lithonia, 38.9% of residents live below the poverty line, 42.3% are children, and 14.7% have no access to a vehicle.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 38% of residents in the City of Lithonia have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W10	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 16.8% of Pine Lake’s population is aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a 17% of the City of Pine Lake’s residents are at a greater risk for injury due to a high wind event and may require greater assistance recovery from the event.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
W11	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 10.9% of Stone Mountain's population have a physical or mental disability. 10.3% have no vehicle available, and 21.8% are children.	Individuals with functional and access needs are more vulnerable to disasters. Over 20% of residents in the City of Stone Mountain have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W12	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Stonecrest, 11.4% of the population have a disability. Also, 26.7% of the population are children, of which 20.3% live in poverty.	Individuals with functional and access needs are more vulnerable to disasters. Over a quarter of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W13	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Tucker, 9.5% of residents have a disability. Also, 21.8% of the population are children.	Individuals with functional and access needs are more vulnerable to disasters. Over a 20% of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W14	<b>Wind and built environment</b> High wind events are highly likely to occur in DeKalb County each year.	Infrastructure systems and critical facilities are important for life safety, economic viability, disaster response operations, and disaster recovery operations.	Infrastructure systems and critical facilities are vulnerable to wind hazard impacts. A major wind-related disaster in DeKalb County could damage or destroy key lifeline systems, hinder response operations, and prolong recovery operations.



*Photo Source: istockphoto.com*

### 4.4(FL) – Flood

#### 4.4.1 – Hazard Description

##### Inland Flooding

Flooding, as defined by the National Weather Service (NWS), is the rising and overflowing of a body of water onto normally dry land. It can result from any overflow of inland or tidal waters, or an unusual accumulation or runoff of surface waters from any source.

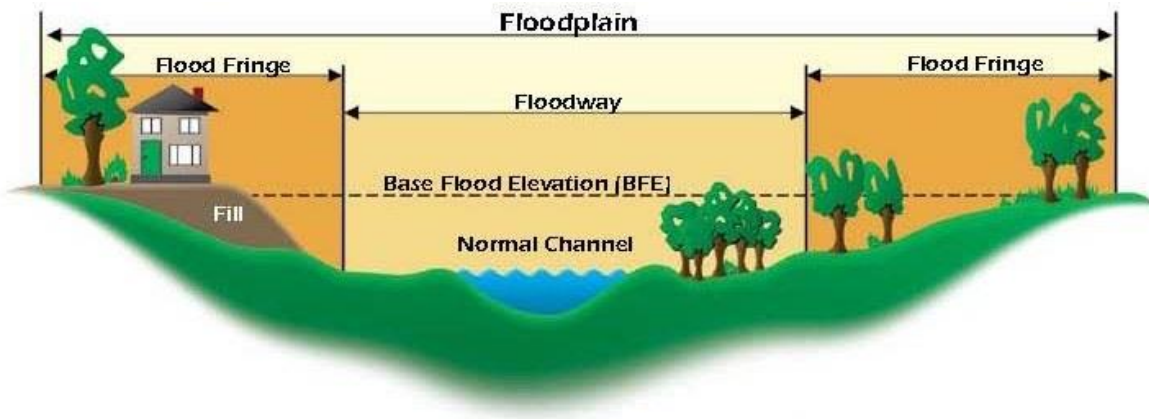
Inland flooding, also known as “urban flooding” or “flash flooding,” can be caused by intense, short-term rain or by moderate rainfall over several days, which can overwhelm existing drainage infrastructure. Other factors that affect the dynamics of this type of flood include slope, width, and vegetation in place along the watercourse banks. The slope that flash floods traverse has a definite relationship to the overall speed in which the water will travel. The incline on which the water moves affects the width of the flooding area. Generally, the faster the water moves, the narrower that channel will be created, since the water digs the channel deeper as it flows. When water flows over shallower slope, it tends to spread out more, decreasing its potential to cause mass damage but still considered dangerous. Finally, the type of vegetation located along the flood’s path can prevent further erosion of the channel banks. A structure that lies along a flood channel with no surrounding vegetation is at risk of having its foundation undercut, which can cause structural damage, or in some cases, a building’s complete collapse. Riverine flooding occurs when excessive rainfall over an extended period causes a river to exceed its capacity. Typical causes of flooding, both inland and riverine, include tropical cyclonic systems, frontal systems, and isolated thunderstorms combined with other environmental variables such as changes to the physical environment, topography, ground saturation, soil types, basin size, drainage patterns, and vegetative cover. The rate of onset and duration of flooding events depends on the type of flooding (typical flood or flash flood). The spatial extent



of a flooding event depends on the amount of water overflow but can usually be mapped because of existing floodplains.

As depicted in the following illustration, a floodplain is a flat or nearly flat land adjacent to a river or stream that experiences occasional or periodic flooding environment, topography, ground saturation, soil types, Floodplains, or Special Flood Hazard Areas (SFHAs), are made when floodwaters exceed the capacity of the main channel or escape the channel by eroding its banks. The sediments (rock and debris) that build up over time from the floodplain's floor. Floodplains also include a floodway, which consists of the water channel and adjacent areas that carry flood flows and the flood fringe, which are areas covered by the flood but do not experience a strong current.

*Illustration 4: Characteristics of a Floodplain*



*Illustration Source: [www.co.mille-lacs.mn.us](http://www.co.mille-lacs.mn.us)*

All communities live with some risk of flooding. FEMA's community flood map program describes the flood risk for a particular area. The flood zones are used to determine insurance requirements and costs.

Moderate- to low- risk flood areas are designated with the letters B, C, and X on FEMA flood maps. In these areas, the risk of being flooded is reduced, but not completely removed. One-in-three insurance claims come from moderate- to low- risk flood areas.

High-risk flood areas begin with the letters A or V on FEMA flood maps. These areas face the highest risk of flooding. Property owners with a federally backed mortgage in these areas are required to purchase flood insurance as a condition of the loan. (<https://www.floodsmart.gov/all-about-flood-maps>)

The NFIP aims to reduce the impact of flooding on private and public structures. It does so by providing affordable insurance to property owners, renters, and businesses and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of general risk insurance and flood insurance.

The adverse impacts of flooding can include structural damage; agricultural crop loss; the death of livestock; loss of access to critical facilities due to roads being washed out or overtopped; unsanitary conditions resulting from materials such as dirt, oil, solvents, and chemicals being deposited during the recession; infestations of disease-carrying mosquitoes; mold and mildew, which pose a severe health risk to small children and the elderly; and temporary backwater effects in sewers and drainage systems. Raw sewage is a breeding ground for bacteria, such as E. coli and other disease-causing agents. A boil order may need to be issued to protect people and animals from contaminated water.

Of equal concern is the long-term psychological effect that flooding has on the people impacted by it. They must contend with the loss of life, property, livelihood, etc., as they cope with the aftermath. The clean-up can take months. The cost to restore a home may be too much, especially for the unprepared or uninsured.



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Plus, there is the looming fear that it may flood again. The resulting stress on floodplain residents takes its toll in the form of aggravated physical and mental health problems.

Unfortunately, the risks from future floods are significant, given expanded development in coastal areas and floodplains, unabated urbanization, land-use changes, and climate change. Because of this, flooding may intensify in many regions across the country, even in areas where total precipitation is projected to decline. According to FEMA, water, and flooding account for about 40% of the Presidentially Declared Disasters in the United States.

### **Dam Failure**

One of the potential causes of flooding is dam failure. A dam is a barrier across flowing water that obstructs, directs, or slows down the flow, often creating a reservoir, lake, or impoundment. Most dams have a section called a spillway or weir, over or through, which water flows, either intermittently or continuously. Dams commonly come in two types, embankment (the most common) and concrete (gravity, buttress, and arch), as well as sizes. They also serve several purposes and provide essential benefits, including drinking water, irrigation, hydropower, flood control, and recreation.

Large or small, dams have a powerful presence that is frequently overlooked until a failure occurs. Dams fail in two ways: 1) a controlled spillway release done to prevent full failure, or 2) the partial or complete collapse of the dam itself. In each instance, an overwhelming amount of water, and potentially debris, is released. Dam failures are rare, but when they do occur, they can cause loss of life and immense damage to property, critical infrastructure, and the environment.

Possible reasons for dam failure include but are not limited to:

- Sub-standard construction materials/techniques
- Spillway design error
- Geological instability caused by changes to water levels during filling or poor surveying
- Sliding of a mountain into the reservoir
- Poor maintenance, especially of outlet pipes
- Human, computer, or design error
- Internal erosion, especially in earthen dams
- Earthquakes
- Terrorism

There are three classifications of dam failure: 1) hydraulic, 2) seepage, and 3) structural. Following is an explanation of each these failure classifications:

1. Hydraulic: This failure is a result of an uncontrolled flow of water over and around the dam structure as well as the erosive action on the dam and its foundation. The uncontrolled flow causing the failure is often classified as wave action, toe erosion, or gullying. Earthen dams are particularly susceptible to hydraulic failure because earthen materials erode more quickly than other materials, such as concrete and steel. This type of failure constitutes approximately 40% of all dam failures.



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2. Seepage: Seepage is the velocity of an amount of water controlled to prevent failure. This occurs when the seepage occurs through the structure to its foundation, where it begins to erode within. This type of failure accounts for approximately 4% of all dam failures.
3. Structural: A failure that involves the rupture of the dam or the foundation by water movement, earthquake, or sabotage. When weak materials construct dams (large, earthen dams) are the primary cause of this failure. Structural failure occurs with approximately 30% of dam failures.

There are now approximately 90,000 dams nationwide with an average age of 56 years. A high number of these dams have received less than favorable Dam Safety Action Classification (DSAC) ratings from the U.S. Army Corps of Engineers (USACE). In fact, as of 2016, the federal government said there were approximately 15,000 U.S. dams classified as having high-hazard potential (HHP), meaning that their failure could result in loss of life. The worst dam failure in the United States occurred in 1889 in Johnstown, Pennsylvania, when over 2,200 people died, with many more were left homeless.

According to USACE, dams are unique components of the U.S. infrastructure in that most dams are privately owned. Dam owners are solely responsible for keeping their dams safe and financing maintenance, repairs, and upgrades. Most dams are regulated for safety by state and federal governments, much the same way as are bridges, food, drugs, factories, etc. States regulate most dams in the U.S. (about 80%). The federal government regulates the remaining number.

### 4.4.2 – Location & Extent

#### **Flooding**

Flash flooding is unpredictable and, therefore, can occur anywhere inside the planning area. A flash flood is an extremely dynamic event in which a high volume of water moves through an area at high velocity during a short period of time. This type of flooding can be challenging to predict and occur with little or no warning. In many cases, a flash flood can move through an area a mile from where rain has occurred, thereby increasing people's damage within the flood's path.

Flash floods occur when rainwater runs into small channels where it begins to collect. As these channels merge, the amount of water increases and picks up speed and force. This collection of water becomes a wall of water that can wash vegetation, structures, and debris. The debris then increases the amount of force available and increases the flood's destructive power.

In Georgia, flooding is greatly dependent upon precipitation amounts and is highly variable across the state. Georgia's climate is primarily affected by latitude, proximity to the Atlantic Ocean and the Gulf of Mexico, and topography. Certain seasons are more prone to present flooding based on the likelihood of excessive precipitation. Typically, the wet seasons are winter, early spring, and midsummer, and the drier seasons are fall and late spring. However, this varies across the state, with the northern portion receiving maximum precipitation amounts during the winter because of frontal systems. In contrast, central and coastal Georgia receive maximums in the mid-to-late summer because of tropical cyclones and convective thunderstorm activity.

The Flood Insurance Study of DeKalb County, GA, and incorporated areas indicates that the county lies within the Southern Piedmont major land resource area. The soils on uplands are mainly well drained and have a loamy surface layer and clayey subsoil. The landscape is made up of gently sloping soils on ridge tops with sloping to steep, well-drained loamy type soil. Although the county is planned mainly for urban use, some excellent farmland exists. Most of the county that has not been developed is in woodland or pastureland. The streams have a steep hydraulic gradient in their headwater reaches, but transition to a moderate gradient as they continue into the major channels.

The history of flooding in DeKalb County indicates that flooding may occur during any season of the year, but floods are most likely to occur in winter and spring when runoff conditions are most favorable. Major flood producing storms in these seasons are usually of the frontal type, which last from two to four days





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and often cover large areas. Summer storms are usually more intense, but they are typically of shorter duration and limited extent.

The Metropolitan North Georgia Water Planning District, which serves DeKalb County and its participating jurisdiction, is located on the eastern subcontinental divide. The planning district comprises three distinct river systems (Apalachicola, Chattahoochee, and Flint ACF; Alabama, Coosa, Tallapoosa ACT; and Altamaha River), six river basins, and nine separate 8- digit Hydrologic Unit Code (HUC-8) Basins. Those major river systems are the Chattahoochee, Coosa, Flint, Ocmulgee, Oconee, and Tallapoosa River Basins. Those river systems create the following river basin watershed within the County: Upper Chattahoochee (Cities of Avondale Estates, Brookhaven, Decatur, Doraville, and Dunwoody; and the Upper Ocmulgee (DeKalb County and the Cities of Clarkston, Lithonia, Pine Lake and Stone Mountain).

The overview and topography of each Watershed that flows in or near DeKalb County and its participating jurisdictions is as follows:

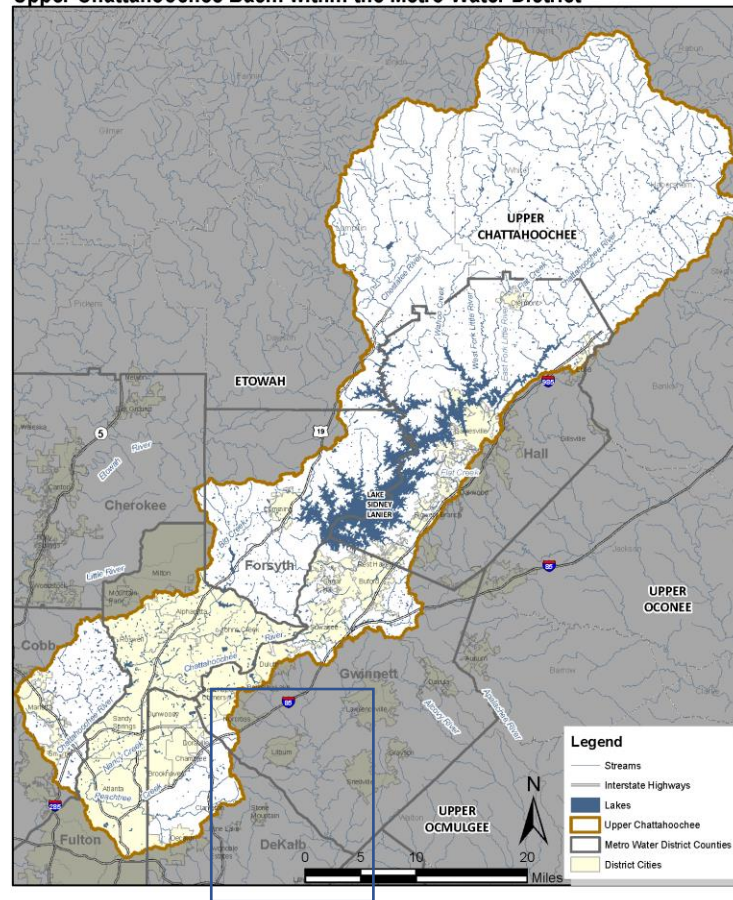
**Upper Chattahoochee River Basin** – The Upper Chattahoochee River Basin includes portions of the Gainesville Ridge, Central Highlands, and the Winder Slope physiographic districts. The Upper Chattahoochee River Basin covers twenty-nine (29) cities, including Cities of Avondale Estates, Brookhaven, Decatur, Doraville, and Dunwoody and seven counties, including DeKalb County. The river basin has its headwaters in the Blue Ridge Mountains northeast of the Metro Water District, flowing southwest to the confluence of the Chattahoochee River with Peachtree Creek. Approximately 43 percent, or 680 square miles, of this HUC-8 Basin is located upstream of the Metro Water District before it occupies a relatively narrow corridor through the center of the Metro Water District, averaging about 40 miles wide, starting in the northeast corner and extending to the southwest corner.

The Chattahoochee River (which includes the Upper Chattahoochee River Basin) joins the Flint River in southern Georgia to form the Apalachicola River, which flows to the Gulf of Mexico. The main tributaries feeding the Upper Chattahoochee River Basin through the Metro Water District include the Chestatee River, Wahoo Creek, Suwanee Creek, Big Creek, Sope Creek, Rottenwood Creek and Peachtree Creek. In contrast to the mainstem Chattahoochee River, all of the natural tributaries remain free-flowing within this basin. Groundwater availability is limited due to geologic conditions, which restrict the potential yield for water supply. More information about the Upper Chattahoochee River Basin can be found online at [http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment\\_1\\_UpperChatt\\_RBP.pdf](http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment_1_UpperChatt_RBP.pdf).

**Note:** *The previous HMP (2016) and DeKalb County Flood Insurance Study (updated August 15, 2020) mentions there have been numerous flood events in DeKalb County. Significant flood-related damage has been experienced along North Fork Peachtree Creek, South Fork Peachtree Creek, Nancy Creek, their tributaries, and other streams. Past floods have caused damage because of development in the floodplains of the impacted streams. As growth in the county continues, the demand for building sites to accommodate residential and industrial development may force the county to consider sites previously considered unacceptable. Such sites could be vulnerable to serious flooding if proper precautions are not implemented.*

Map 9: Upper Chattahoochee River Basin Map (2017)

**FIGURE UC-1**  
**Upper Chattahoochee Basin within the Metro Water District**



Map Source: Metropolitan North Georgia Water Planning District, Upper Chattahoochee River Basin Profile, [http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment\\_1\\_UpperChatt\\_RBP.pdf](http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment_1_UpperChatt_RBP.pdf)

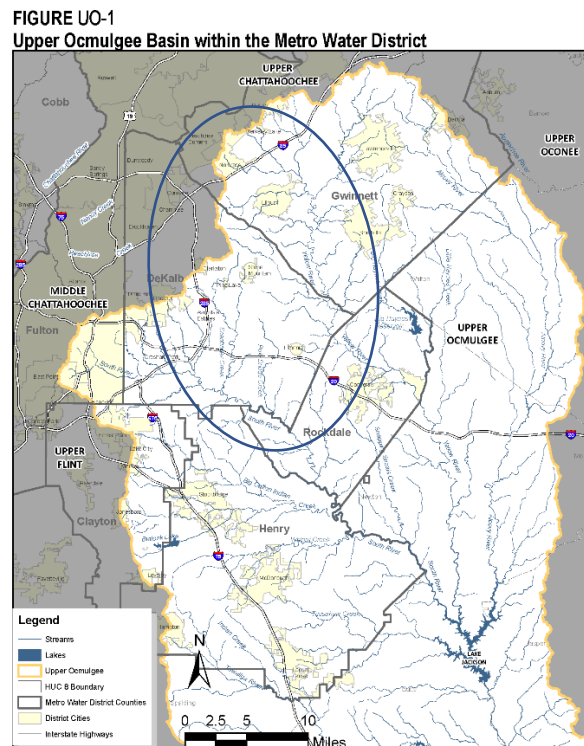
**Upper Ocmulgee River Basin** – The Upper Ocmulgee River Basin encompasses 982 square miles and includes portions of thirty (30) cities including the Clarkston, Lithonia, Pine Lake and Stone Mountain, and six (6) counties that include DeKalb County. Approximately 100 miles of Interstate 85, Interstate 75, Interstate 285 and Interstate 20 traverse the basin. The Ocmulgee streams and tributaries are classified as drinking or fishing, with the majority designated for fishing. The Upper Ocmulgee River Basin is entirely within the Piedmont province, which consists of a series of rolling hills and occasional isolated mountains. The Upper Ocmulgee River Basin includes portions of the Gainesville Ridge, Washington Slope and Winder Slope physiographic districts.

The headwaters of the Upper Ocmulgee River Basin originate in Clayton, DeKalb, Fulton and Gwinnett Counties and drain to the southeast through portions of Henry and Rockdale Counties. The Alcovy River, South River, Towaliga River and Yellow River are the main tributaries draining to this portion of the Metro Water District. This river basin includes one 8-digit HUC, ten 10-digit HUCs and forty 12-digit HUCs. While there are multiple smaller reservoirs, such as Big Haynes Creek, Blalock Lake, Lake Jodeco and Stone Mountain Lake in this basin, there are no major impoundments; however, Lake Jackson, a 4,570-acre

Georgia Power-managed Project, is located just outside of and downstream of the Metro Water District. As such, it is influenced by the land cover and watershed conditions found within the Upper Ocmulgee River Basin. Jackson Lake is not supporting its designated use of recreation due to fish consumption guidelines for legacy polychlorinated biphenyl (PCB) contamination, which is attributed to urban runoff and nonpoint source pollution. More information about the Upper Ocmulgee River Basin can be found online at [http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment\\_2\\_MiddleChat\\_RBP.pdf](http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment_2_MiddleChat_RBP.pdf)

**Note:** The previous HMP (2016) mentions that in the Unincorporated portion of the County, most significant flood related damages have been experienced along North Fork Peachtree Creek, South Fork Peachtree Creek, Nancy Creek, their tributaries, and other streams.

Map 10: Upper Ocmulgee River Basin Map (2017)



Map Source: Metropolitan North Georgia Water Planning District, Upper Ocmulgee River Basin Profile  
[http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment\\_3\\_Ocmulgee\\_RBP.pdf](http://northgeorgiawater.org/wp-content/uploads/2017/05/Attachment_3_Ocmulgee_RBP.pdf)

In terms of the extent, or range of magnitude, floods can vary greatly in the planning area from localized drainage to dangerous flash floods with significant depths and high velocities. According to the 2019 DeKalb County Flood Insurance Study, updated August 15, 2019, "New hydrologic and hydraulic analyses were prepared for Camp Creek, Camp Creek Tributary A, Crooked Creek Tributary to Stone Mountain Creek, Crooked Creek Tributary A, Crooked Creek Tributary A-1, Pine Mountain Creek, Johnson Creek, Little Stone Mountain Creek, Stone Mountain Creek, Stone Mountain Creek Tributary A, Swift Creek, Swift Creek Tributary A, Swift Creek Unnamed Tributary 3, Tom George Creek and Yellow River. The detail hydrology and hydraulics were performed for 20-, 10-, 4-, 2-, 1-, 0.2-percent-annual-chance flood events. The hydrology and hydraulics parameters were based on DeKalb County's 2-foot interval topography map, or the 2010 Light Detection and Ranging (LiDAR) Terrain data. The Hydrologic Engineering Center (HEC) computer software HEC-HMS (version 3.5) was used to model rainfall-runoff for the new detailed study watersheds except Yellow River, which was based on gage analysis." The 2019 DeKalb County Flood Insurance Study can be obtained by contacting the County Floodplain Coordinator.



## SECTION 4: RISK ASSESSMENT

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The National Flood Insurance Program (NFIP) provides insurance to help reduce the socio-economic impact of floods. The NFIP status of community in the declared counties is published in the NFIP Community Status Book. The NFIP status has implications for disaster assistance to the community and its citizens. NFIP status means a community either:

- Participates in the NFIP
- Does not participate in the NFIP
- Is suspended or sanctioned

The Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management practices that exceed the minimum requirements of the NFIP. In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:

1. Reduce and avoid flood damage to insurable property.
2. Strengthen and support the insurance aspects of the NFIP.
3. Foster comprehensive floodplain management.



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Table 26: FEMA Community Status Book Report, DeKalb County

FEMA Community Status Book Report, DeKalb County									
CID	Community Name	Init FHBM Identified	Init FIRM Identified	Curr Eff Map Date	Reg-Emer Date	CRS Date	Curr Eff Date	% Disc SFHA	% Disc Non SFHA
130528C	City of Avondale Estates		5/7/01	8/15/19	1/21/10				
135175F	City of Brookhaven*	6/2/70	5/15/80	8/15/19	10/18/13				
130066C	City of Chamblee	6/7/74	9/15/77	8/15/19	9/15/77				
130067C	City of Clarkston	2/21/75	6/15/81	8/15/19	6/15/81				
135159C	City of Decatur	6/16/70	6/16/70	8/15/19	6/11/71	10/1/93	5/1/15	15%	5%
130065C	DeKalb County	6/2/70	5/15/80	8/15/19	5/15/80	10/1/92	10/1/08	15%	5%
130069C	City of Doraville	6/7/74	9/1/77	8/15/19	9/1/77				
130679C	City of Dunwoody**	6/2/70	5/15/80	8/15/19	10/14/09				
130472C	City of Lithonia		5/7/01	12/8/16	1/3/08				
130070#	City of Pine Lake	4/12/74	6/15/81	5/16/13	6/15/81				
130260C	City of Stone Mountain	4/12/74	8/1/86	12/8/16	8/1/86				
130268C	City of Stonecrest	6/2/70	5/15/80	12/8/16	12/5/19				
130681C	City of Tucker	6/2/70	5/15/80	8/15/19	9/16/19				

Source: FEMA (<https://www.fema.gov/cis/GA.pdf>)

\*Brookhaven is located on DeKalb County FIRM Panels: 0011J, 0012J, 0013J, 0014J, and 0016J dated 5/16/13. The initial FIRM date for Brookhaven is 5/15/80.

\*\*Dunwoody has adopted the DeKalb County FIRM panels 13089C005H, 0010H, 0012H, 0016H, and 0017H dated 5/7/01.





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The following information provides flooding sources, the most current Special Flood Hazard Areas (SFHAs), and flood insurance rate zones developed by FEMA for DeKalb County. SFHAs represent the areas subject to inundation by a 100-year flood event. Structures located within the SFHA have a 26 percent chance of flooding during the life of a standard 30-year mortgage. The following tables provide a summary of increases, decreases, and net charges of SFHA's for the County, Avondale Estates, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain, and DeKalb County Unincorporated Areas.

**Note:** At the time of this plan update, The DeKalb County Risk Report (May 2013) is an indeterminate period with no record of an updated version. The Cities of Brookhaven, Stonecrest, and Tucker were not included in The DeKalb County Risk Report (May 2013), as they both did not incorporate in time to be included. They are counted in the DeKalb County Unincorporated Areas.

### A. DeKalb County – SFHA Summary

SFHA Summary, DeKalb County				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	276.56	4.76	2.64	2.12
Within Floodway	22.09	3.86	1.01	2.85

Source: DeKalb County Flood Risk Report (May 2013) – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain Changes since the last FIRM information outside DeKalb County, the figures in this table only represent information within the DeKalb County.

### B. City of Avondale Estates – SFHA Summary

SFHA Summary, City of Avondale Estates				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	1.17	0.03	0	0.03
Within Floodway	0.32	0.02	0	0.02

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Avondale Estates, the figures in this table only represent information within the City of Avondale Estates.



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### C. City of Chamblee – SFHA Summary

SFHA Summary, City of Chamblee				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	4.88	0.03	0.6	-0.03
Within Floodway	.27	0	0	0

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain Changes since the last FIRM information outside the City of Chamblee, the figures in this table only represent information within the City of Chamblee

### D. City of Clarkston – SFHA Summary

SFHA Summary, City of Clarkston				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	1.07	0.03	0.0	0.03
Within Floodway	0.12	0.01	0.0	0.01

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Clarkston, the figures in this table only represent information within the City of Clarkston.

### E. City of Decatur – SFHA Summary

SFHA Summary, City of Decatur				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	0.20	0.04	0.08	-0.04
Within Floodway	0.09	0.02	0.03	-0.01

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Decatur, the figures in this table only represent information within the City of Decatur.





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### F. City of Doraville – SFHA Summary

SFHA Summary, City of Doraville				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	3.61	0.03	0.05	-0.02
Within Floodway	0.14	0.0	0.0	0.0

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Doraville, the figures in this table only represent information within the City of Doraville.

### G. City of Dunwoody – SFHA Summary

SFHA Summary, City of Dunwoody				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	13.44	0.02	0.13	-0.11
Within Floodway	0.26	0.0	0.02	-0.02

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Dunwoody, the figures in this table only represent information within the City of Dunwoody.

### H. City of Lithonia – SFHA Summary

SFHA Summary, City of Lithonia				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	0.94	0.0	0.0	0.0
Within Floodway	0.0	0.0	0.0	0.0

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Lithonia, the figures in this table only represent information within the City of Lithonia.



## SECTION 4: RISK ASSESSMENT

### I. City of Pine Lake – SFHA Summary

SFHA Summary, City of Pine Lake				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	0.25	0.0	0.0	0.0
Within Floodway	0.04	0.0	0.01	-0.01

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Pine Lake, the figures in this table only represent information within the City of Pine Lake.

### J. City of Stone Mountain – SFHA Summary

SFHA Summary, City of Stone Mountain				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	1.66	0.02	0.0	0.02
Within Floodway	0.03	0.02	0.0	0.02

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of City of Stone Mountain, the figures in this table only represent information within the City of Stone Mountain.

### K. DeKalb County Unincorporated Areas Summary – SFHA Summary

SFHA Summary, DeKalb County Unincorporated Areas Summary				
Area of Study	Total Area (mi <sup>2</sup> )	Increase (mi <sup>2</sup> )	Decrease (mi <sup>2</sup> )	Net Change (mi <sup>2</sup> )
Within SFHA	238.06	4.44	2.26	2.18
Within Floodway	20.69	3.69	0.94	2.75

Source: DeKalb County PMR Flood Risk Report – Georgia Department of Natural Resources, Environmental Protection Division

Note: Although the Flood Risk Database may contain changes since the last FIRM information outside of DeKalb County Unincorporated Areas, the figures in this table only represent information within the DeKalb County Unincorporated Areas.

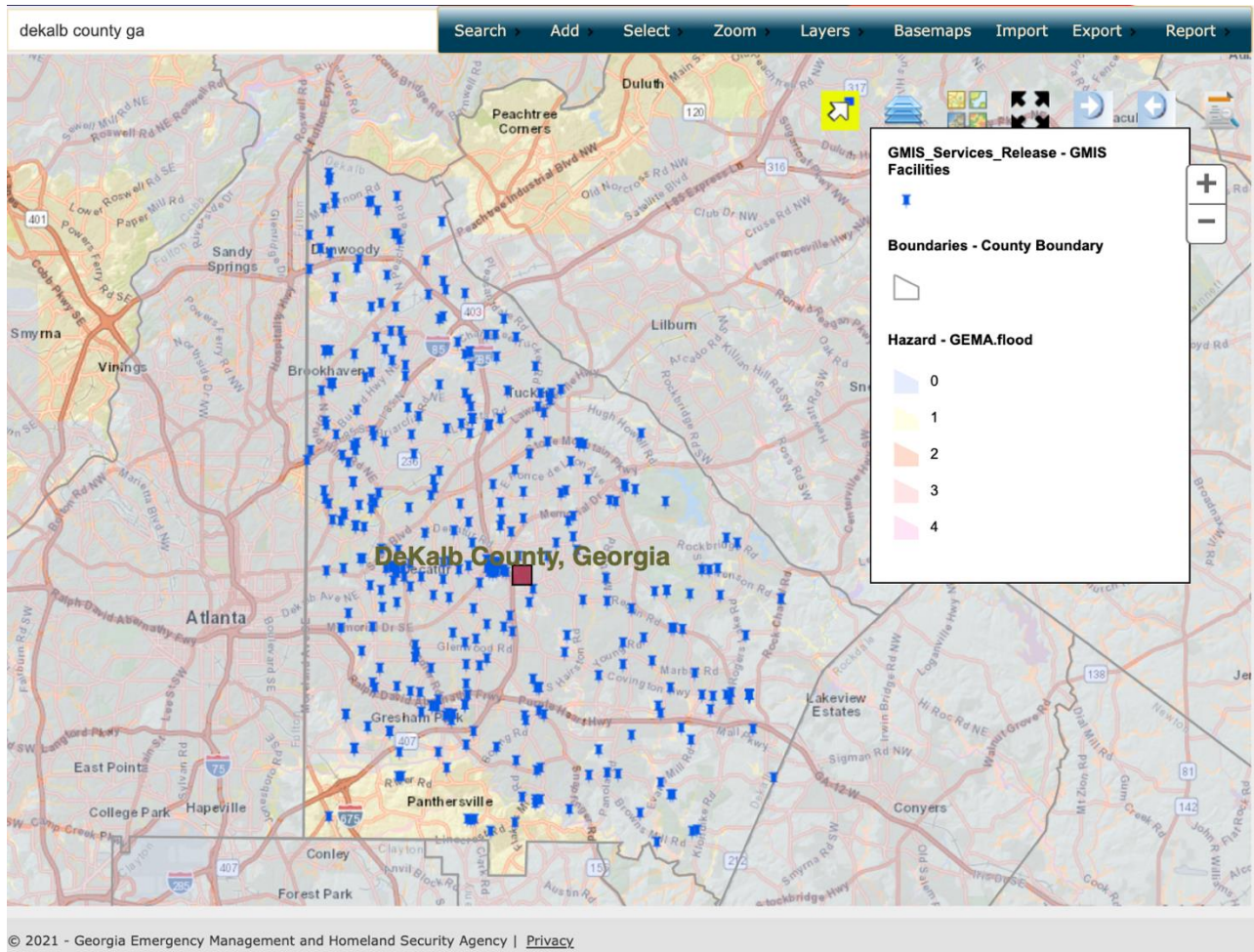
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Map 12: DeKalb County, GA GMIS Map with Flood Layer



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Map Source: Georgia Mitigation Information System (GMIS),  
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

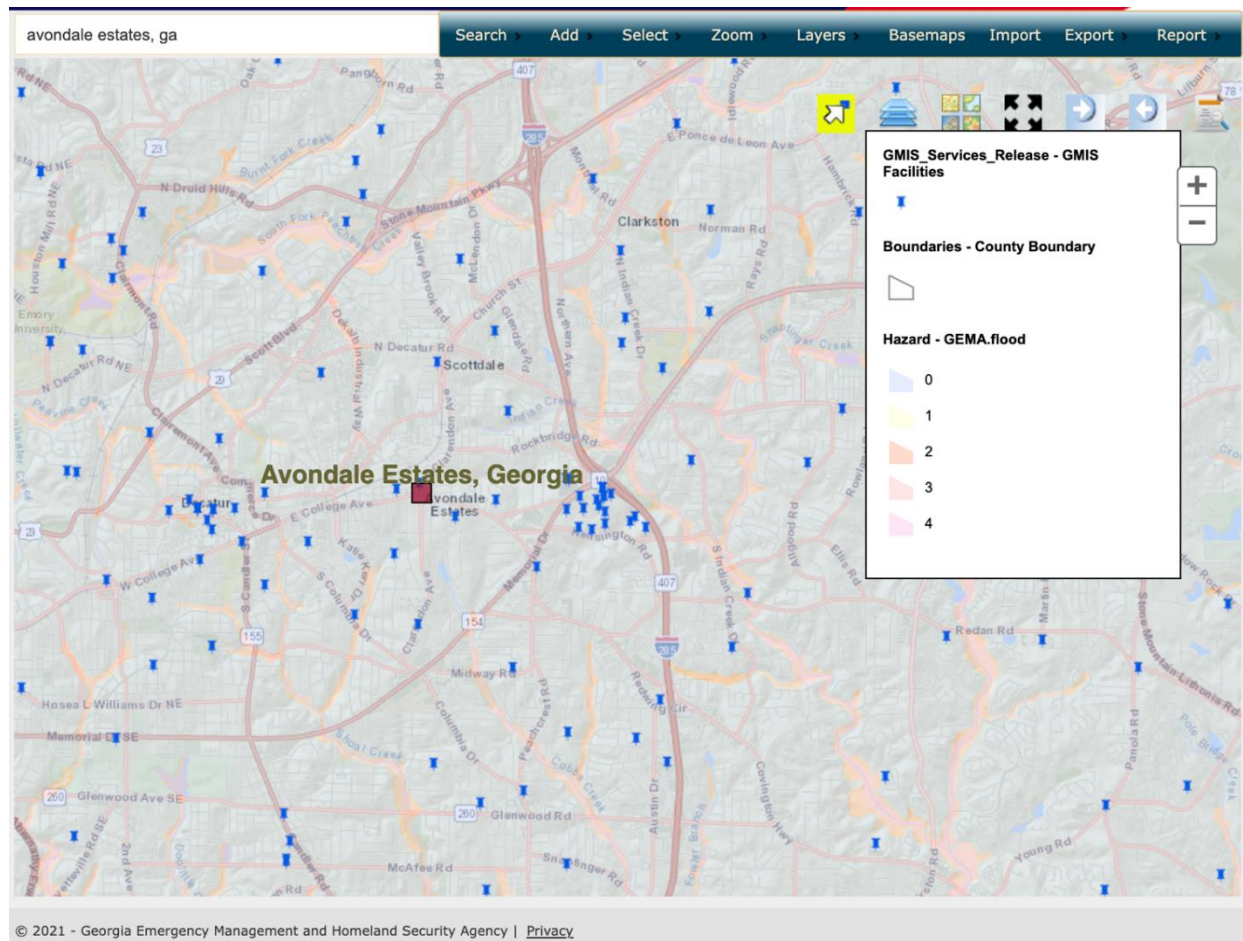
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





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Map 13: City of Avondale Estates, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

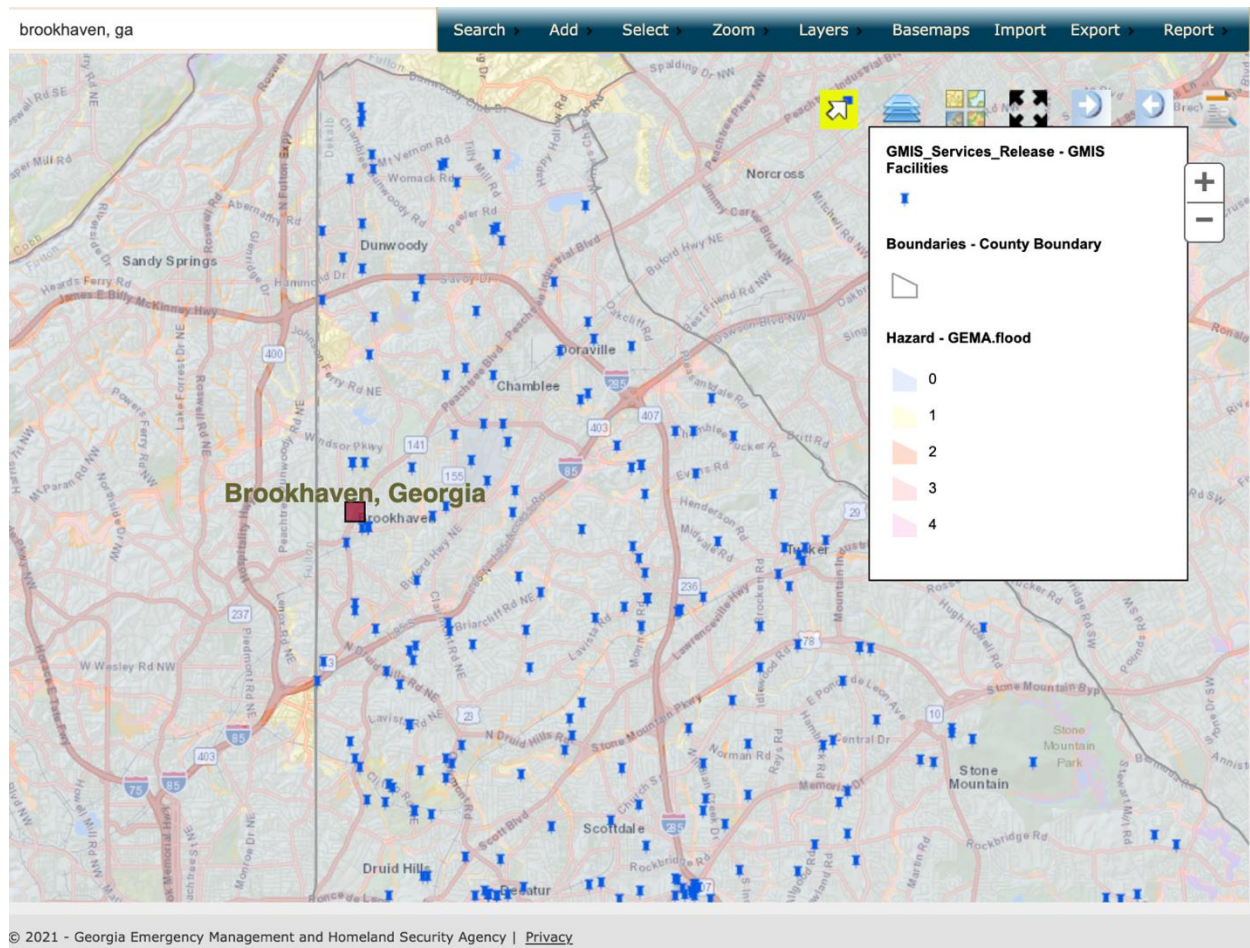
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



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Map 14: City of Brookhaven, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

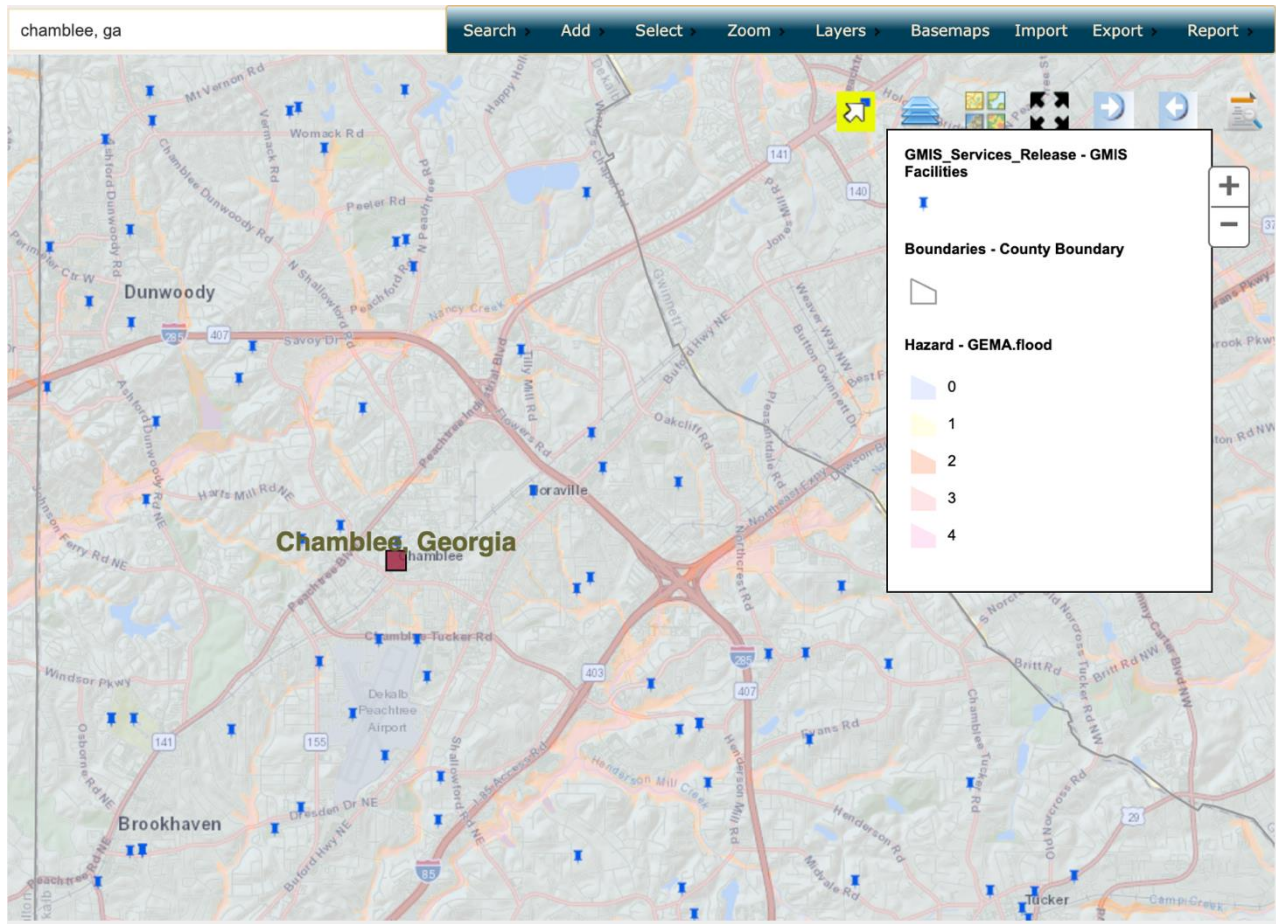
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA "Q3" Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





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Map 15: City of Chamblee, GA GMIS Map with Flood Layer



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Map Source: Georgia Mitigation Information System (GMIS),

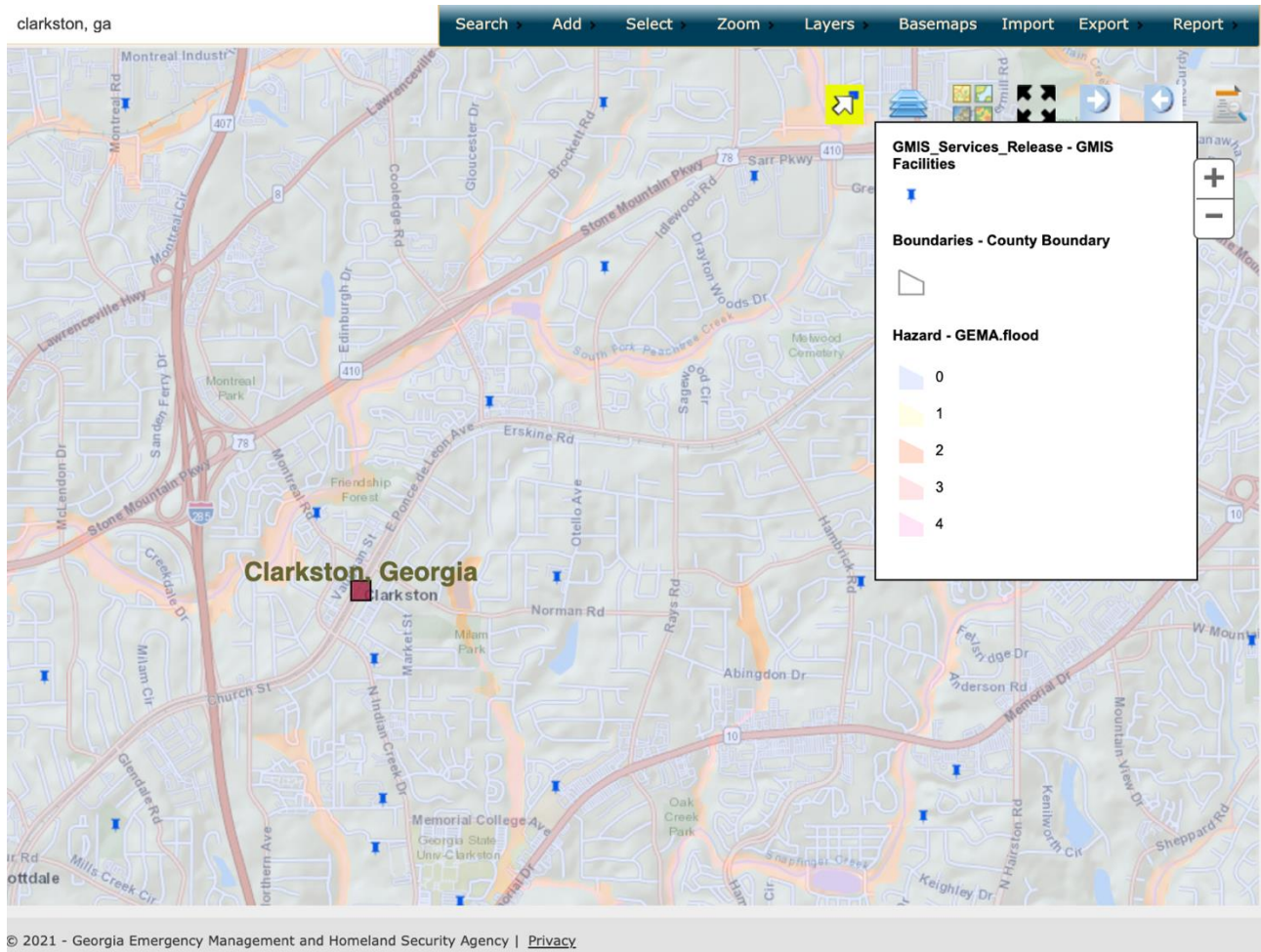
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



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Map 16: City of Clarkston, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

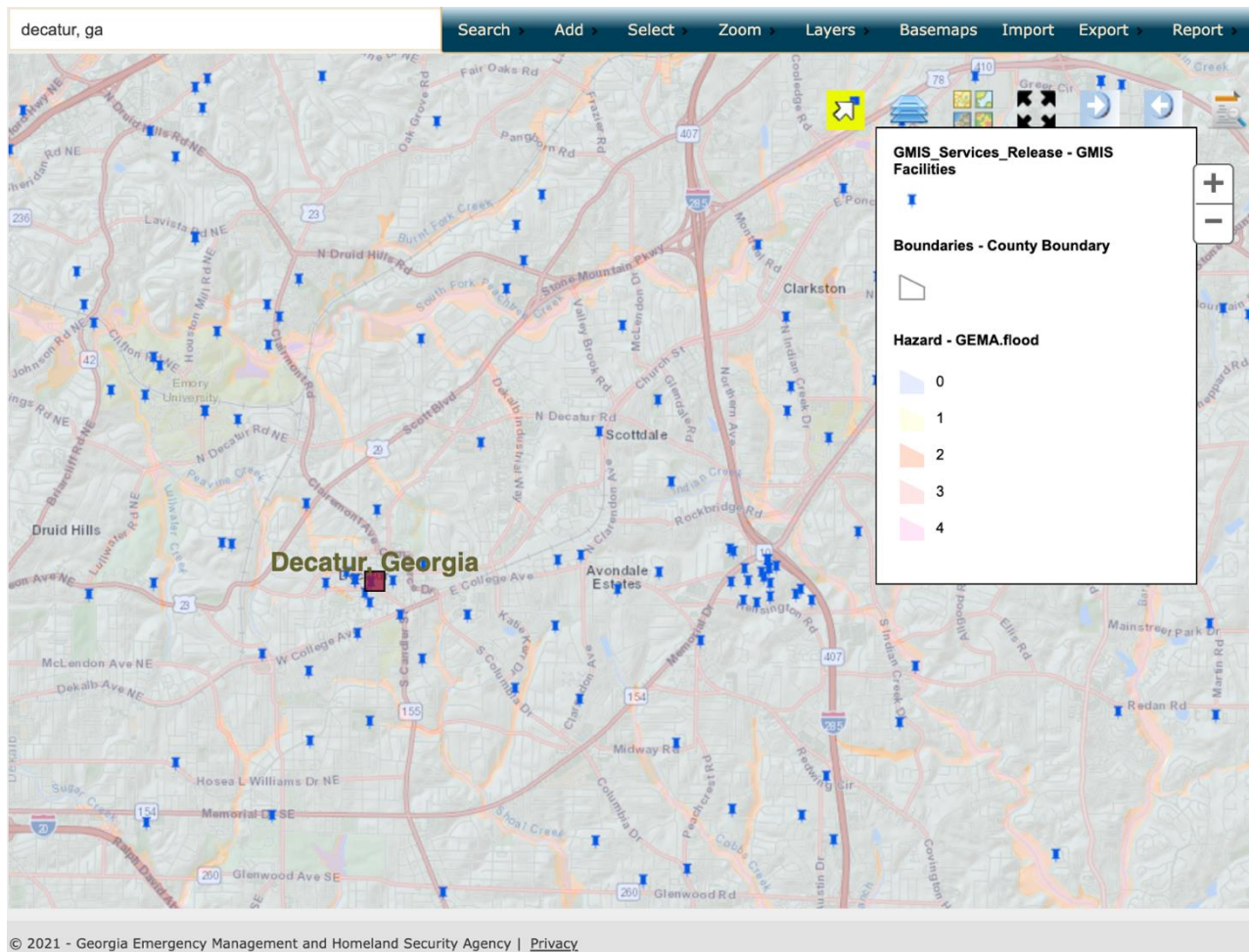
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





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Map 17: City of Decatur, GA GMIS Map with Flood Layer

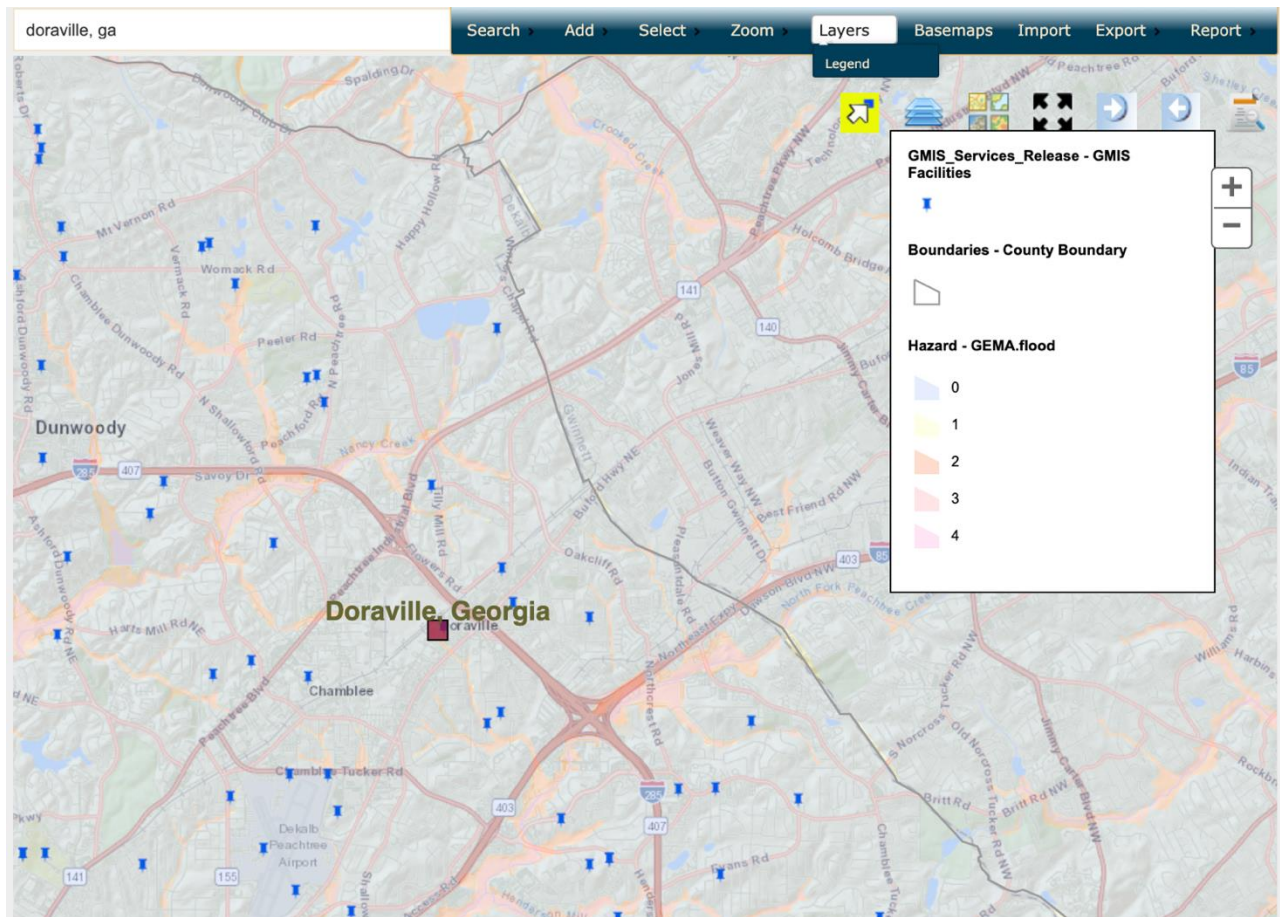


Map Source: Georgia Mitigation Information System (GMIS),  
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>  
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



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Map 18: City of Doraville, GA GMIS Map with Flood Layer



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Map Source: Georgia Mitigation Information System (GMIS),

<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

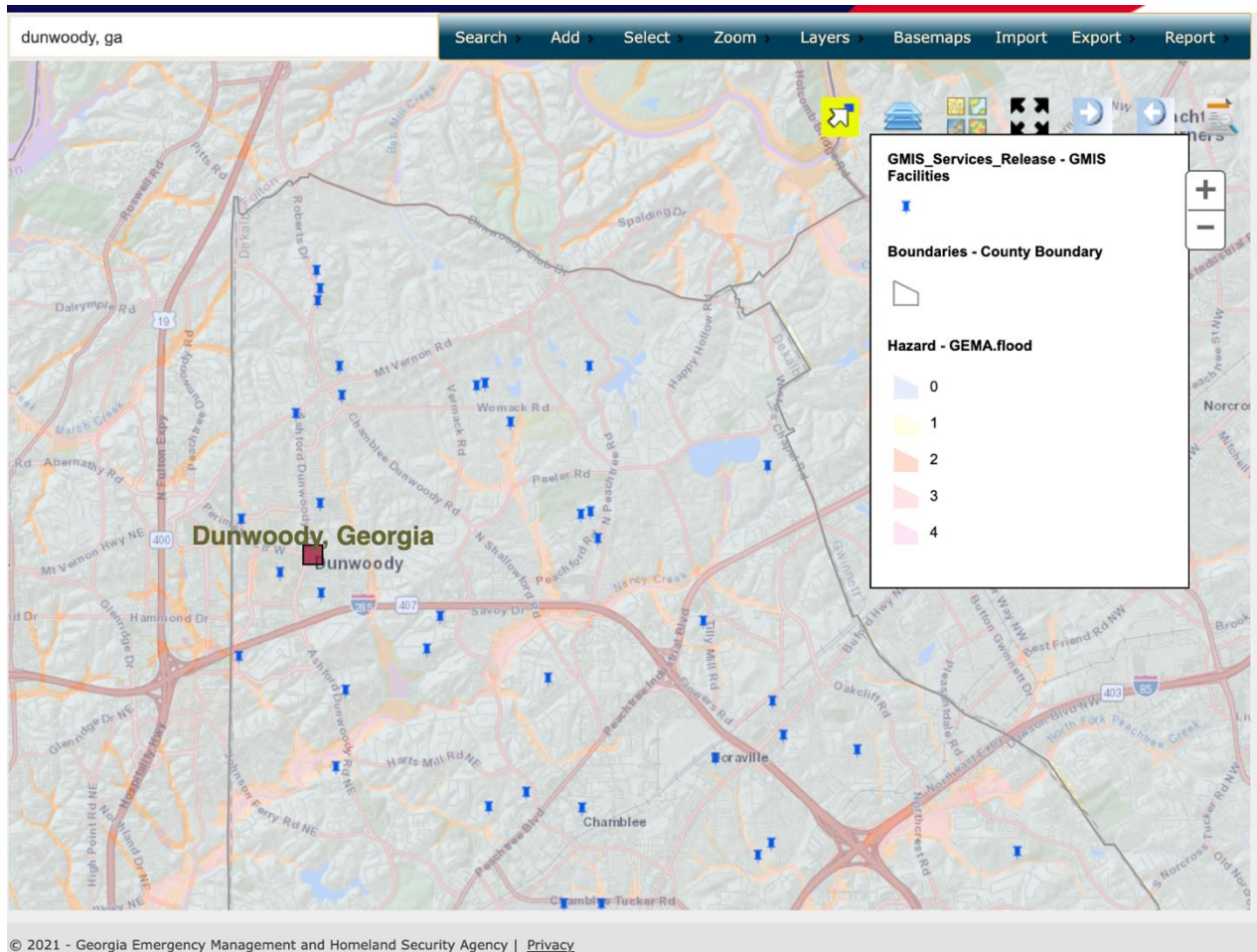
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





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Map 19: City of Dunwoody, GA GMIS Map with Flood Layer



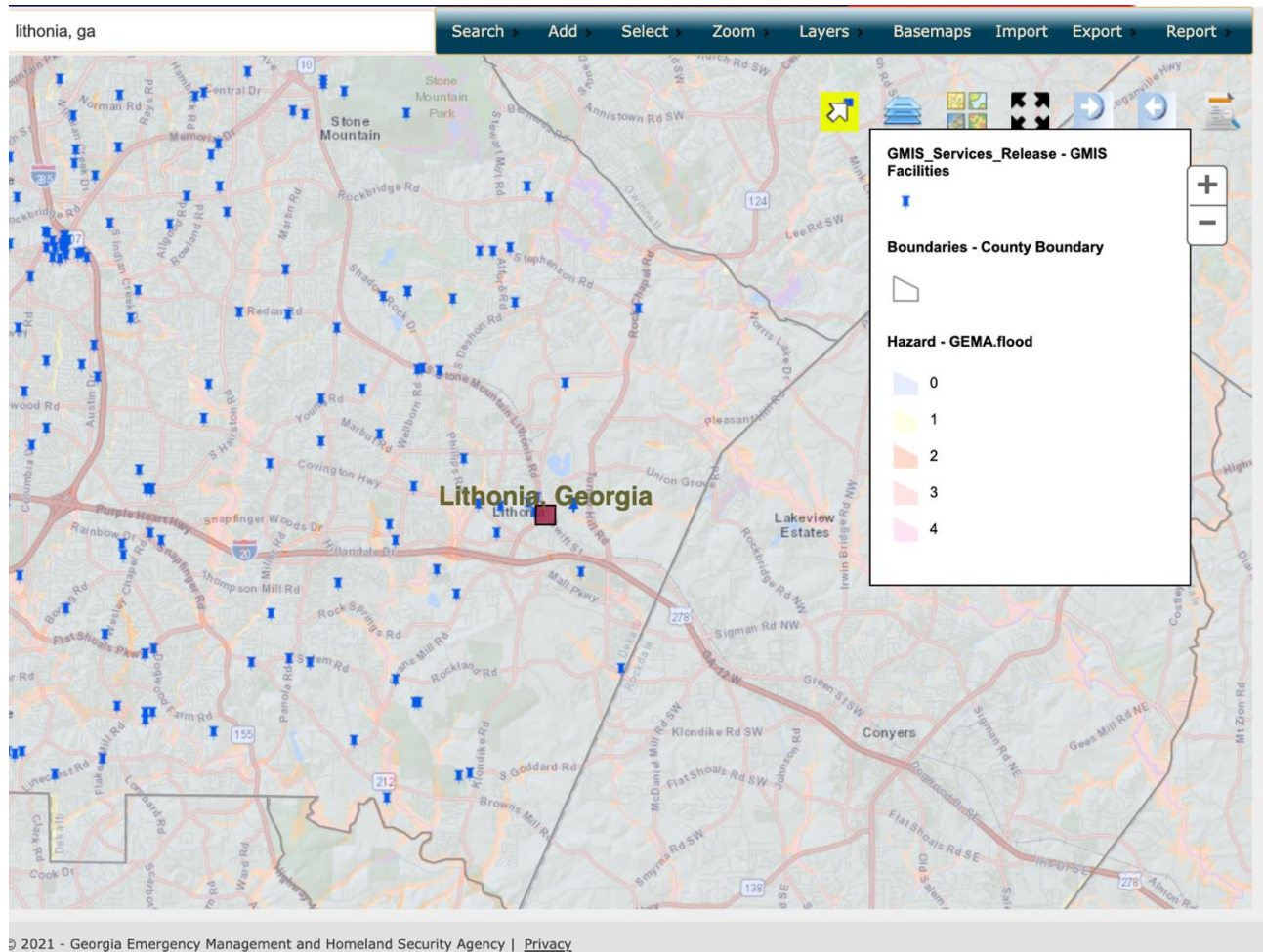
Map Source: Georgia Mitigation Information System (GMIS),  
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



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Map 20: City Lithonia, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

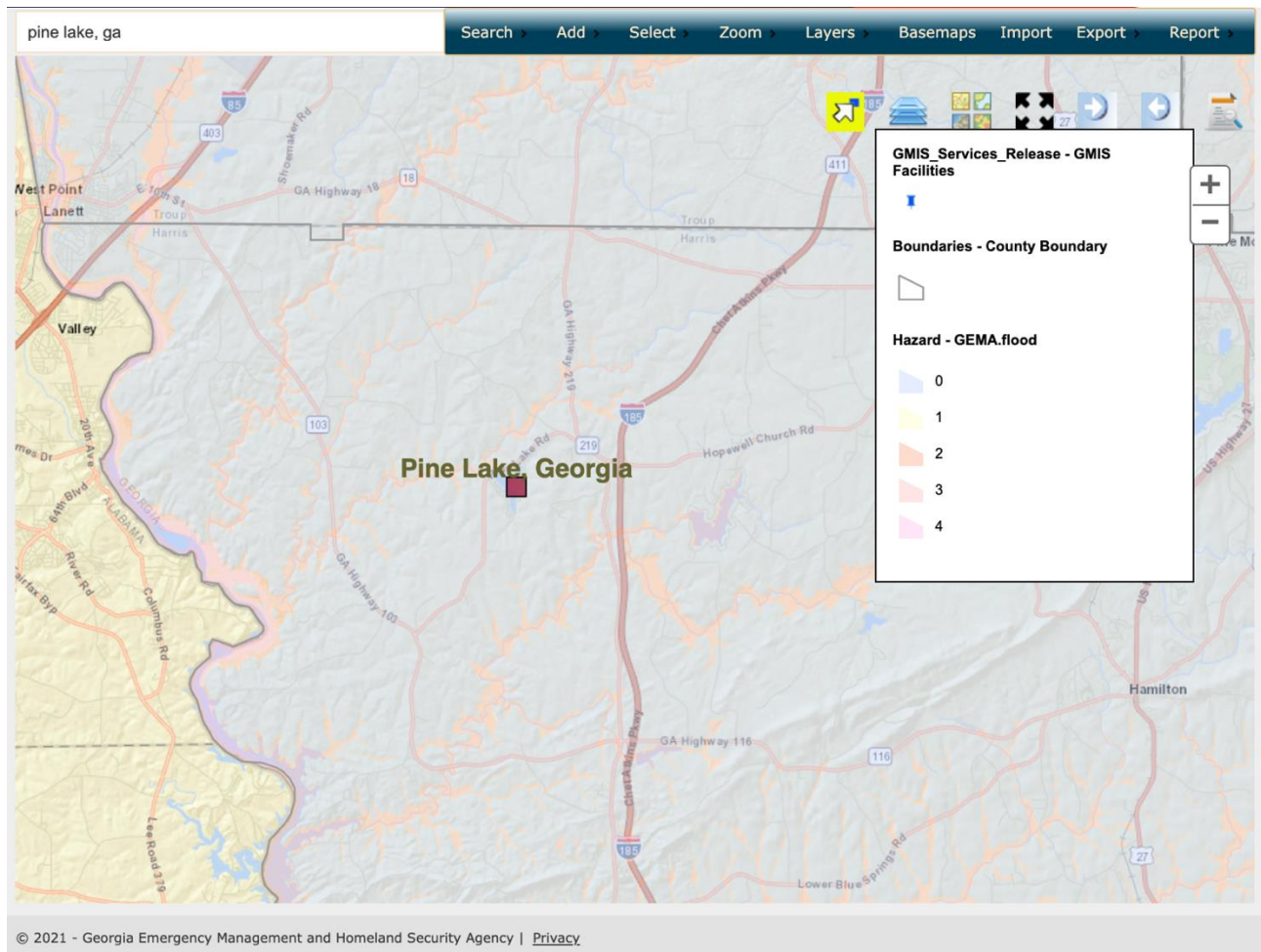
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA "Q3" Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





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Map 21: City of Pine Lake, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

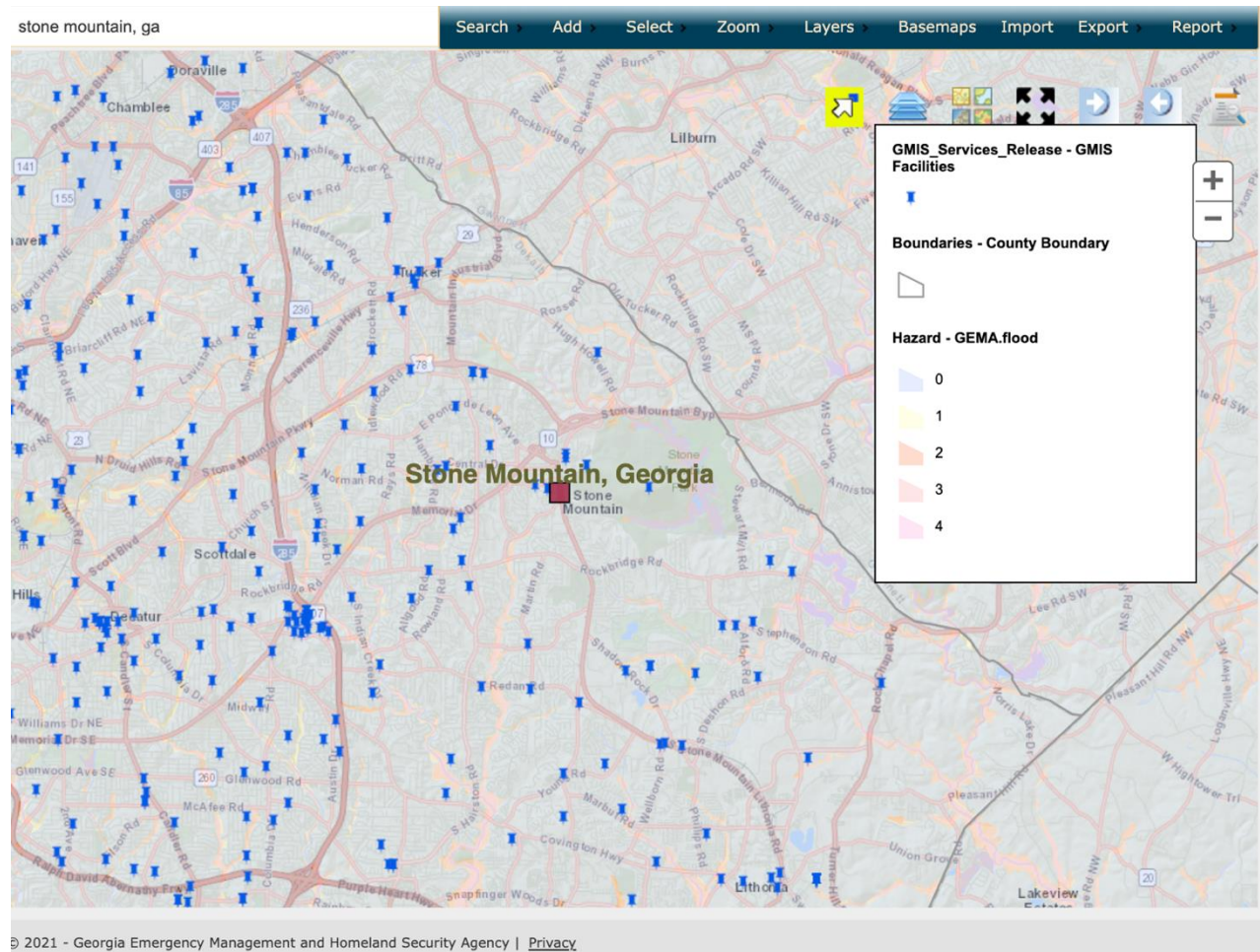
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



## SECTION 4: RISK ASSESSMENT

Map 22: City of Stone Mountain, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),  
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

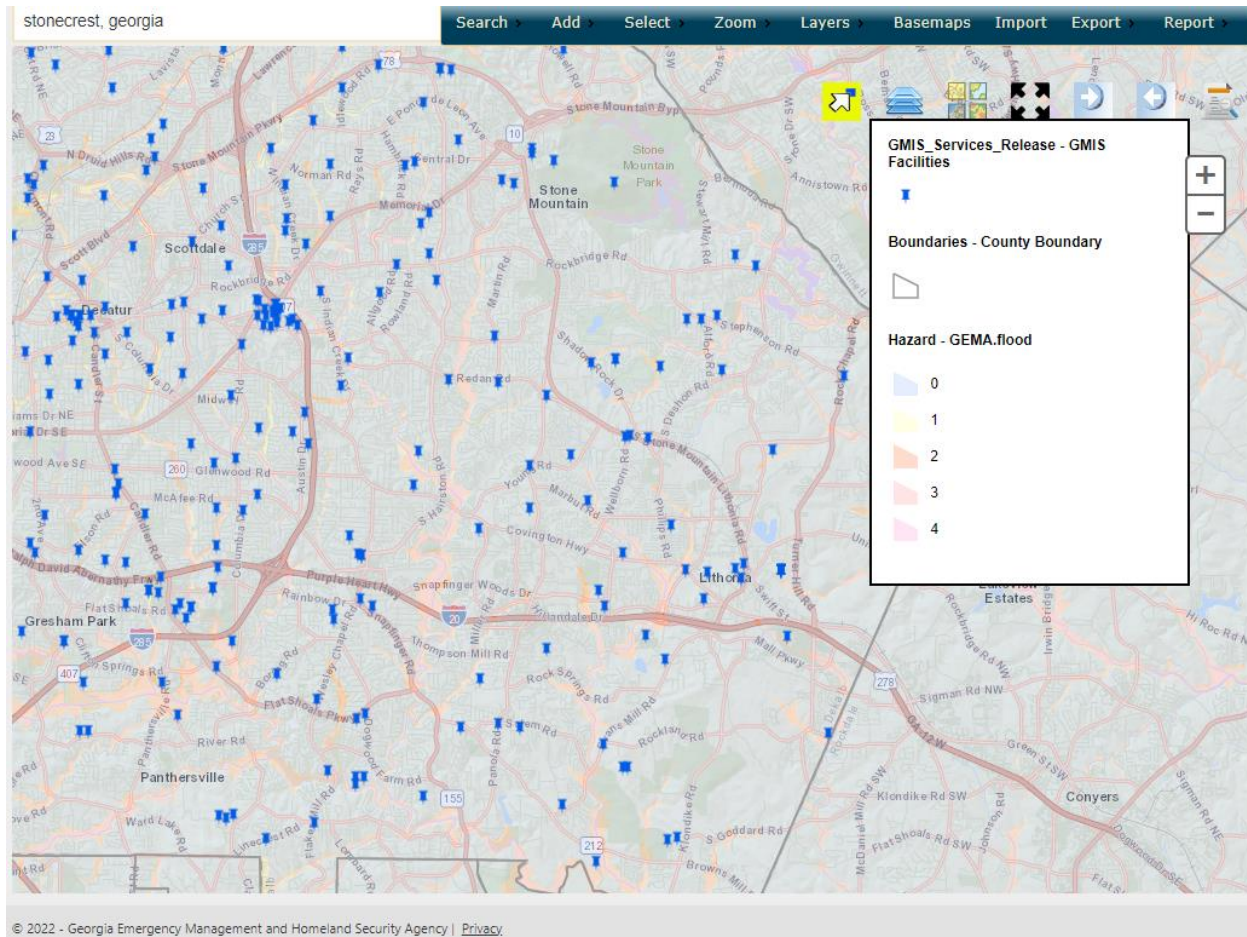
**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.





## SECTION 4: RISK ASSESSMENT

Map 23: City of Stonecrest, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

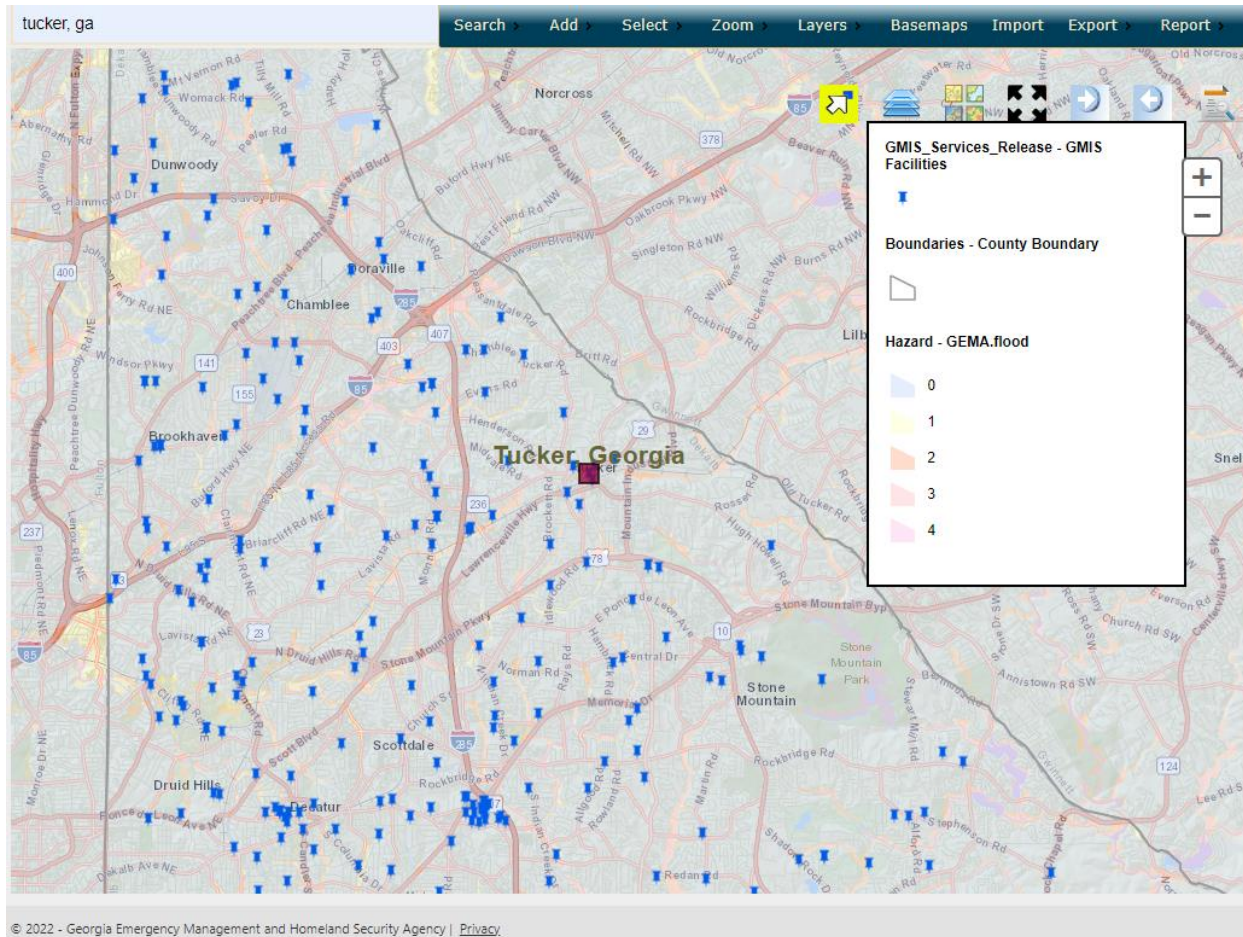
<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA "Q3" Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit <https://gema.georgia.gov/>.



## SECTION 4: RISK ASSESSMENT

Map 24: City of Tucker, GA GMIS Map with Flood Layer



Map Source: Georgia Mitigation Information System (GMIS),

<https://apps.itos.uga.edu/GEMA.GMIS/Account/Login?ReturnUrl=%2fGEMA.GMIS%2fHome%2fIndex>

**Note:** The GMIS Flood Layer in the following map comes from hazard scores within the GMIS system. The flood hazard scores are derived from the FEMA “Q3” Zone values. The Q3 Layer is derived from the FEMA paper flood insurance rate maps. Although the resolution is 1:24,000, which has an allowable error of 40 feet, FEMA recommends using 250 feet as the potential error. This layer cannot be used for a legal flood determination. For information on designations described visit

<https://gema.georgia.gov/>.

The following table explains the Floodplain Insurance Rate Map (FIRM) flood zone classifications associated with Maps on the proceeding pages. All DeKalb County FEMA DFIRM maps can be found in Appendix E.



## SECTION 4: RISK ASSESSMENT

Table 27: Flood Zone Classifications

Flood Zone Classifications	
Zone	Description
<b>A</b>	An area inundated by 1% annual chance flooding, for which no BFEs have been determined. (100-Year Floodplain)
<b>AE</b>	An area inundated by 1% annual chance flooding, for which BFEs have been determined. (100-Year Floodplain)
<b>Shaded X</b>	Areas of 500-year flood; areas of 100-year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 100-year flood. An area inundated by 0.2% annual chance flooding.
<b>Unshaded X</b>	Area of minimal flood hazard, usually depicted on FIRMs as above the 500-year flood level. Zone X is the area determined to be outside the 500-year flood and protected by levee from 100- year flood.

*Note: For the following FEMA National Flood Hazard Layer (NFHL) maps, the A and AE zones have been combined as they are both considered 100-year floodplain.*

Source: FEMA Flood Zone Designations: <https://snmapmod.snco.us/fmm/document/fema-flood-zone-definitions.pdf>





## SECTION 4: RISK ASSESSMENT

Map 25: Georgia DFIRM Map – DeKalb County GA

### DeKalb County, Georgia



**Legend with Flood Zone Designations**

Flood Control Structures	1% Flood - Floodway (High Risk)	1% Flood - Zone VE (HighRisk)	Floodway Decrease
Base Flood Elevations	1% Flood - Zone AE (High Risk)	Area Not Included	Floodway Increase
Cross Sections	1% Flood - Zone A, AH, or AO (HighRisk)	Letters of Map Revision	100-Year Flood Zone Decrease
Coastal Transects	0.2% Flood - X-Shaded (Moderate Risk)	Coastal Barrier Resource Area	100-Year Flood Zone Increase
FIRM Panel Index	Area of Undertermined Flood Hazard	Limit of Moderate Wave Action	Zone Change

Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRM (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).



Property Flood Risk:

Low Risk

Flood Depths\*:

0.2% ANNUAL CHANCE (500 YEAR) FLOOD DEPTH
Not Available
1% ANNUAL CHANCE (100 YEAR) FLOOD DEPTH
Not Available
10% ANNUAL CHANCE (10 YEAR) FLOOD DEPTH
Not Available

Risk in fo	Current Flood Zone:	X
	*Probability of Flooding: (30-Year Period)	Not Available
	Base Flood Elevation:	Not Available
	Lowest Adj Grade:	Not Available
	Preliminary Flood Zone:	Not Available
	Flood Zone Change Type:	Not Available

#### Location Information

Panel:	13089C0088J
Watershed:	Upper Ocmulgee
County:	DEKALB
Community ID:	13089C
Map Status:	EFFECTIVE

\* Flood Depths shown on this report are derived from FEMA RiskMAP products and are rounded to the nearest tenth of a foot. These depths are calculated from HEC-RAS modeling and represent the best available data. Only areas within a RiskMAP studied watershed will have this data available. Please check back if your area is not currently available. For more information, please visit the FEMA Map Service Center at <https://msc.fema.gov/portal/resources/faq>

#### Nature Doesn't Read Flood Maps

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-elevated home in the SFHA will be flooded during a 30-year mortgage period.

The chance that a major fire will occur during the same period is less than 10%!

FOR MORE INFORMATION VISIT, PLEASE VISIT:



Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

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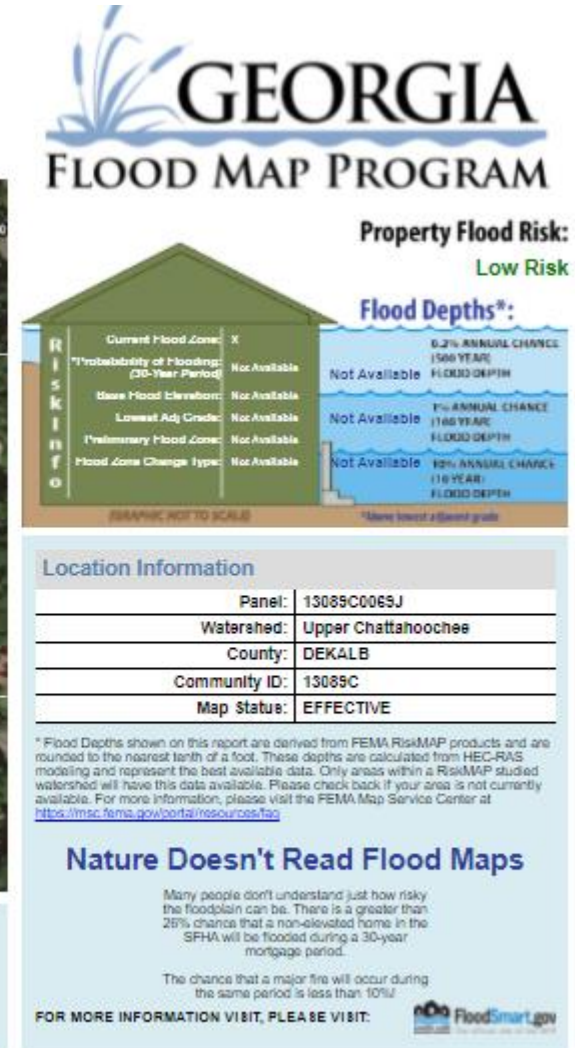




## SECTION 4: RISK ASSESSMENT

Map 26: Georgia DFIRM Map – Avondale Estates, GA

### Avondale Estates, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of lot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

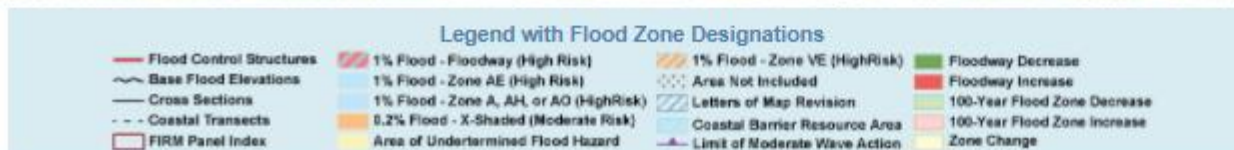
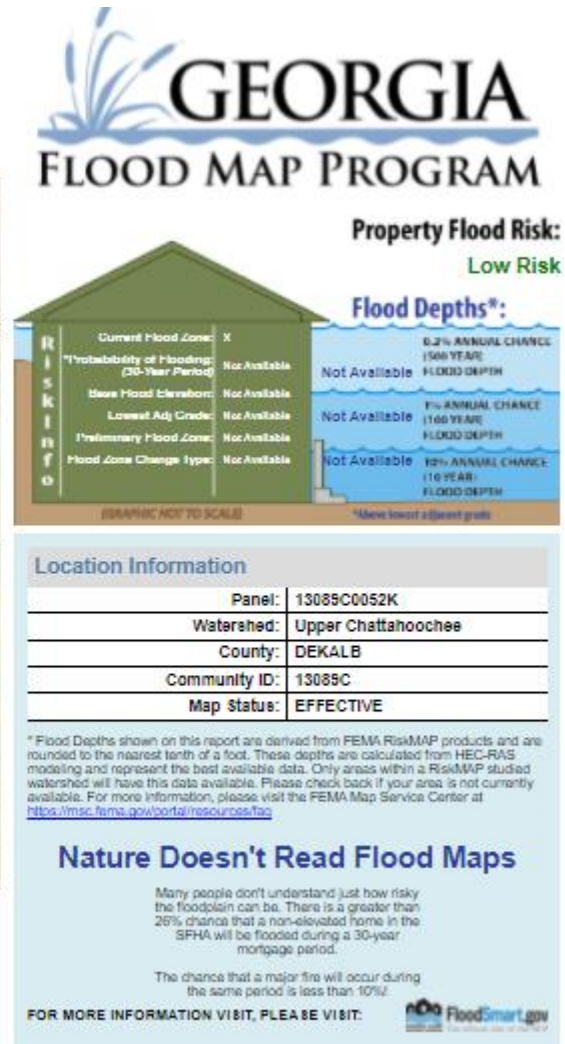




## SECTION 4: RISK ASSESSMENT

Map 27: Georgia DFIRM Map –Brookhaven, GA

### Brookhaven, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).

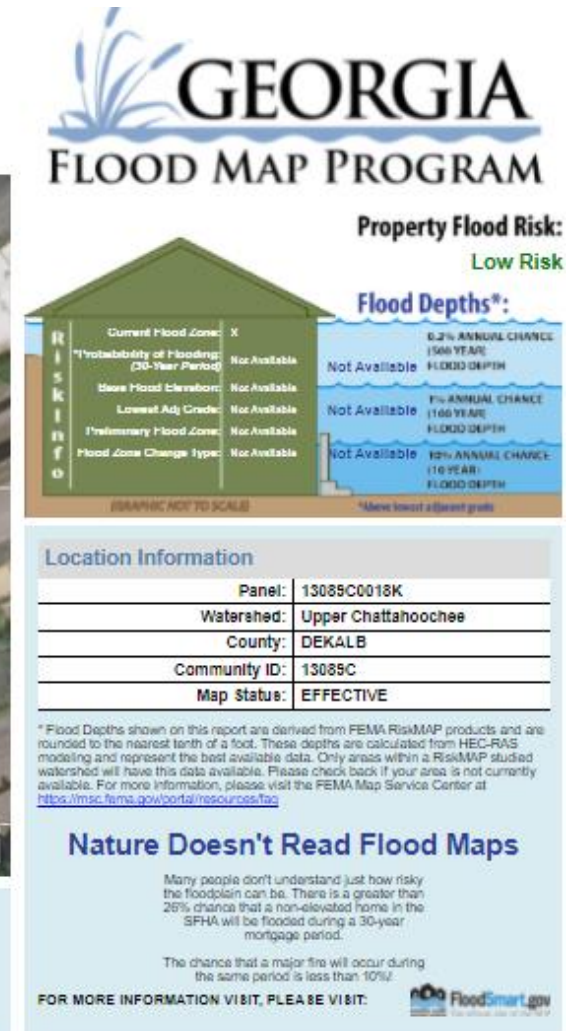
Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>



## SECTION 4: RISK ASSESSMENT

Map 28: Georgia DFIRM Map – Chamblee GA

### Chamblee, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

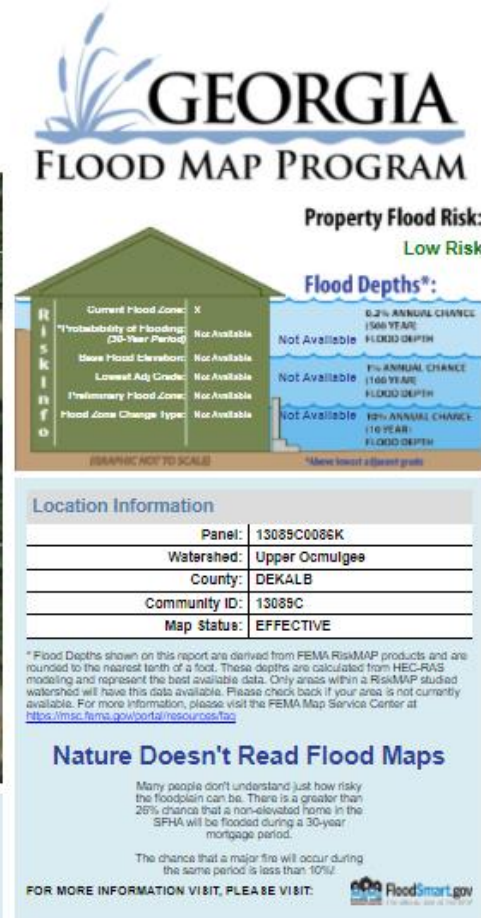




## SECTION 4: RISK ASSESSMENT

Map 29: Georgia DFIRM Map – Clarkston GA

### Clarkston, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of foot location, not extent of structures.

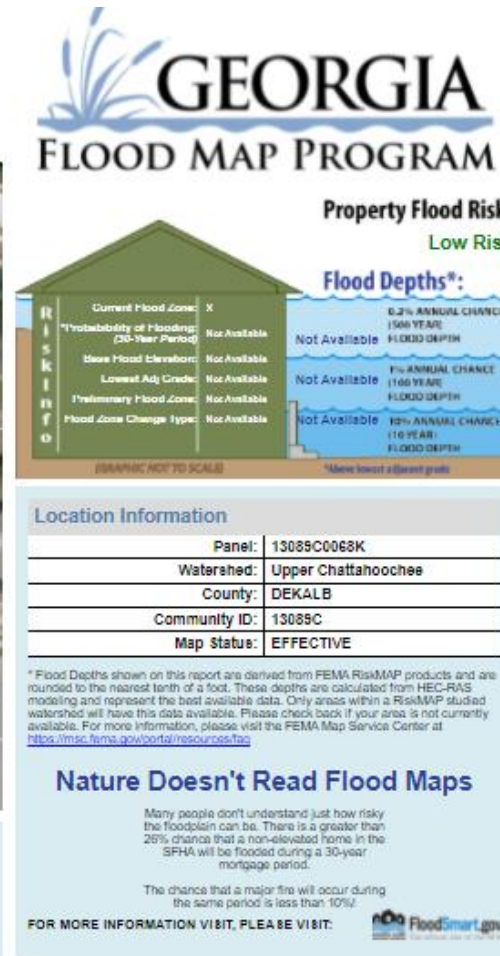
Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>



## SECTION 4: RISK ASSESSMENT

Map 30: Georgia DFIRM Map – Decatur, GA

### Decatur, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

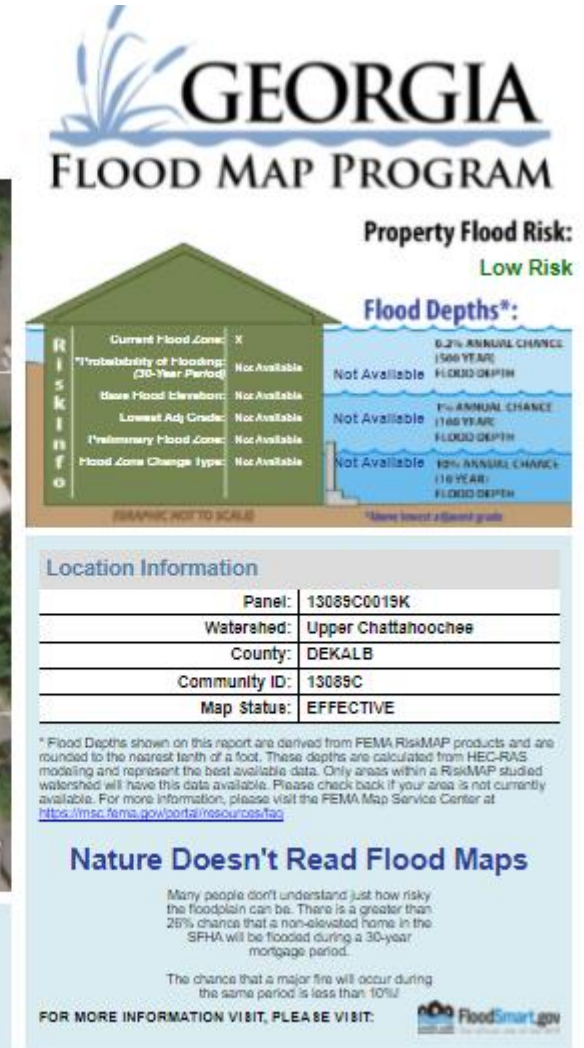




## SECTION 4: RISK ASSESSMENT

Map 31: Georgia DFIRM Map – Doraville, GA

### Doraville, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of lot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

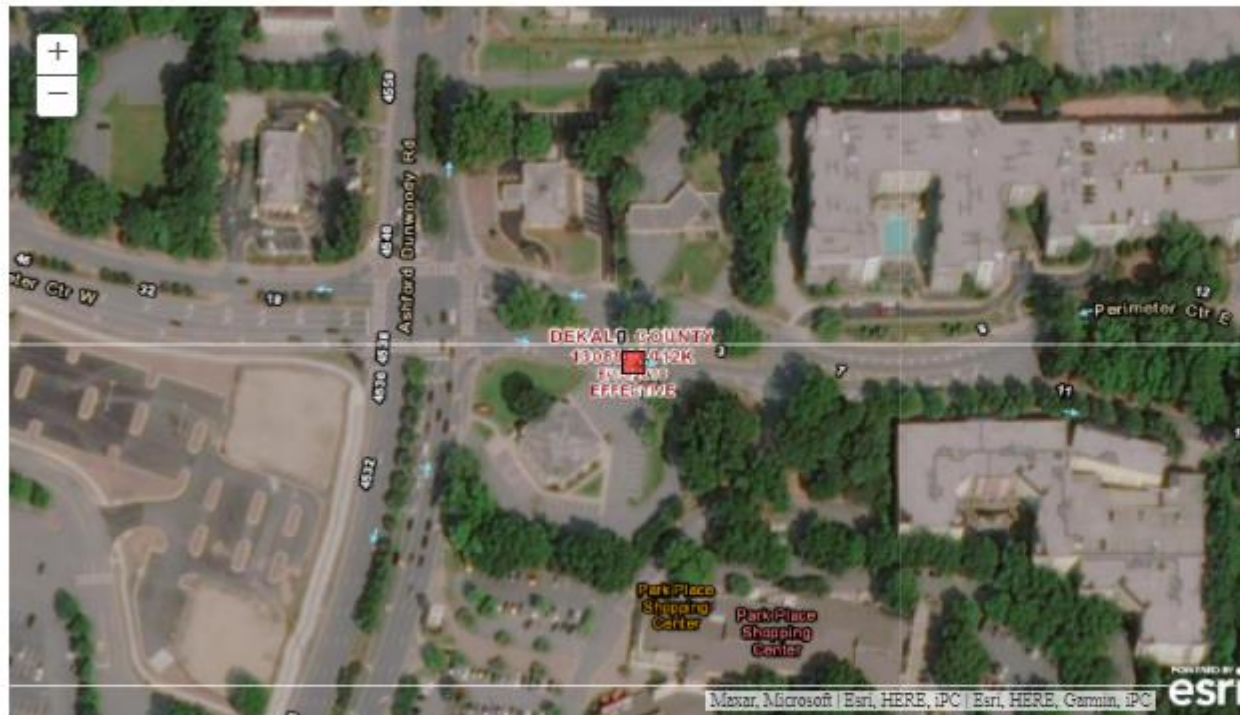




## SECTION 4: RISK ASSESSMENT

Map 32: Georgia DFIRM Map – Dunwoody GA

### Dunwoody, Georgia



**GEORGIA FLOOD MAP PROGRAM**

**Property Flood Risk:**  
Low Risk

**Flood Depths\*:**

Risk	Current Flood Zone	Probability of Flooding (30-Year Period)	Base Flood Elevation	Lowest Adj Grade	Preliminary Flood Zone	Flood Zone Change Type
0.2% ANNUAL CHANCE (500 YEAR) FLOOD DEPTH <td>X</td> <td>Not Available</td> <td>Not Available</td> <td>Not Available</td> <td>Not Available</td> <td>Not Available</td>	X	Not Available	Not Available	Not Available	Not Available	Not Available
1% ANNUAL CHANCE (100 YEAR) FLOOD DEPTH <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
10% ANNUAL CHANCE (10 YEAR) FLOOD DEPTH <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						

**Location Information**

Panel:	13085C0012K
Watershed:	Upper Chattahoochee
County:	DEKALB
Community ID:	13085C
Map Status:	EFFECTIVE

**Nature Doesn't Read Flood Maps**

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-elevated home in the SFHA will be flooded during a 30-year mortgage period.

The chance that a major fire will occur during the same period is less than 10%!

**FOR MORE INFORMATION VISIT, PLEASE VISIT:** [FloodSmart.gov](https://www.floodsmart.gov)



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of lot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

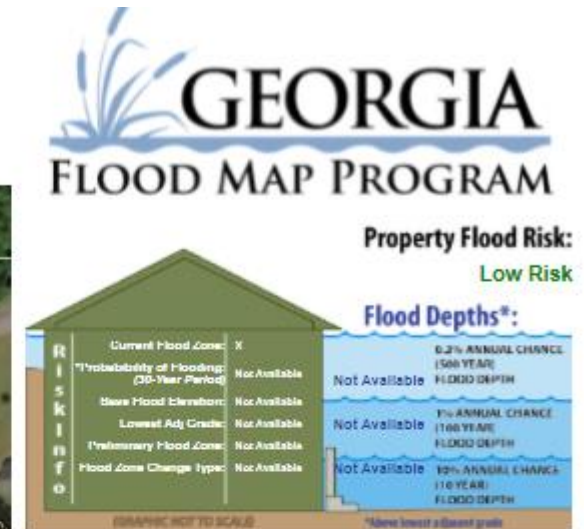




## SECTION 4: RISK ASSESSMENT

Map 33: Georgia DFIRM Map – Lithonia, GA

### Lithonia, Georgia



Location Information	
Panel:	13085C0178K
Watershed:	Upper Ocmulgee
County:	DEKALB
Community ID:	13085C
Map Status:	EFFECTIVE

\* Flood Depths shown on this report are derived from FEMA RiskMAP products and are rounded to the nearest tenth of a foot. These depths are calculated from HEC-RAS modeling and represent the best available data. Only areas within a RiskMAP studied watershed will have this data available. Please check back if your area is not currently available. For more information, please visit the FEMA Map Service Center at <https://msc.fema.gov/portal/resources.asp>

### Nature Doesn't Read Flood Maps

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-elevated home in the SFHA will be flooded during a 30-year mortgage period.

The chance that a major fire will occur during the same period is less than 10%!

FOR MORE INFORMATION VISIT, PLEASE VISIT: [FloodSmart.gov](https://www.floodsmart.gov)

Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of plot location, not extent of structure(s).

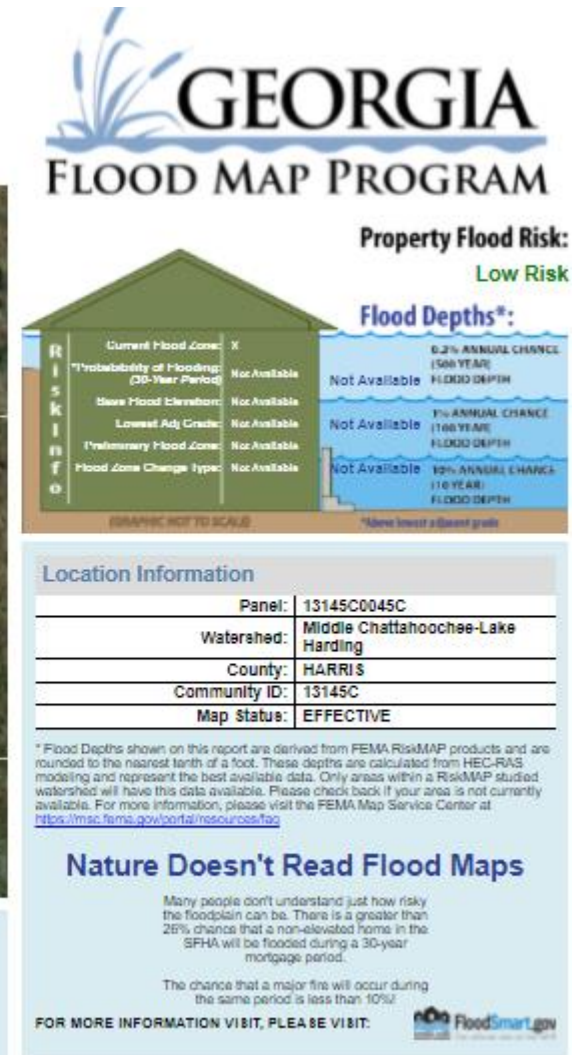
Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>



## SECTION 4: RISK ASSESSMENT

Map 34: Georgia DFIRM Map – Pine Lake, GA

### Pine Lake, Georgia



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of.

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

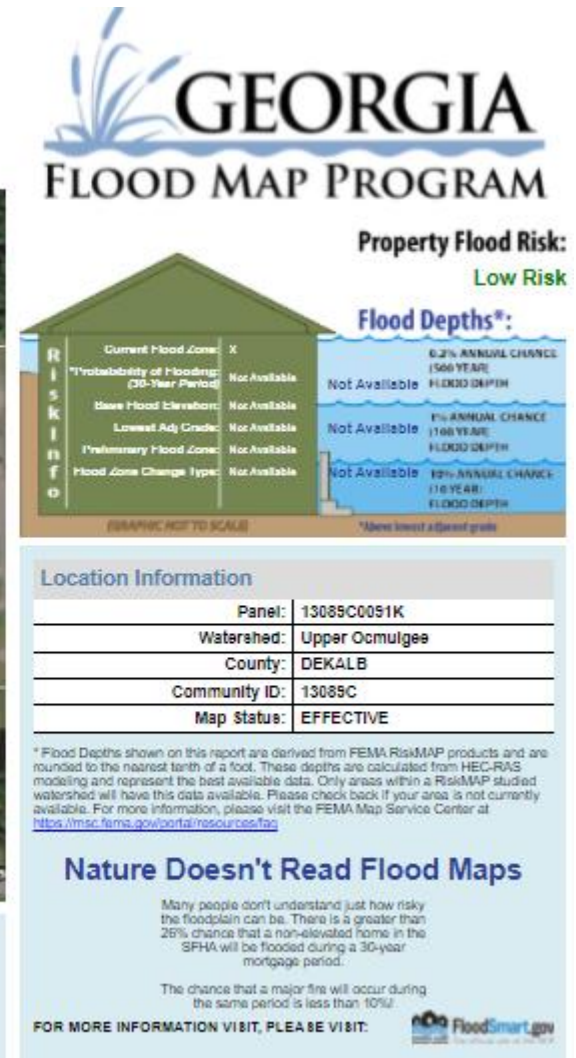




## SECTION 4: RISK ASSESSMENT

Map 35: Georgia DFIRM Map – Stone Mountain, GA

### Stone Mountain, Georgia



Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

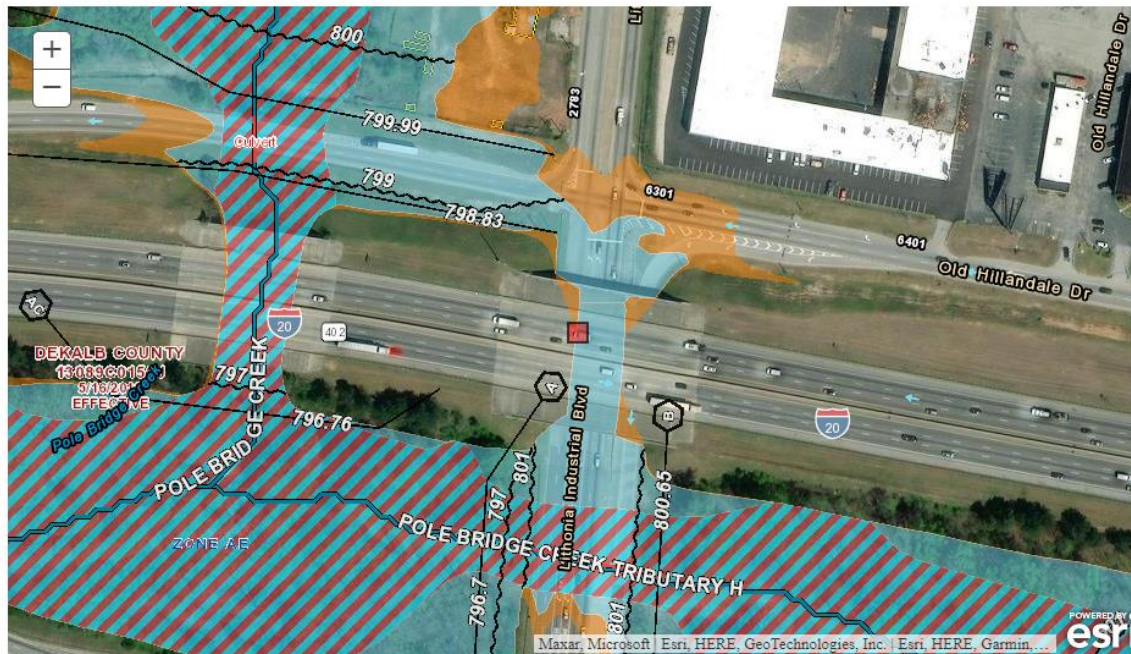




## SECTION 4: RISK ASSESSMENT

Map 36: Georgia DFIRM Map – Stonecrest, GA

### I-20 W, Lithonia, Georgia, 30038



Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP flood insurance and regulation purposes, please refer to the published effective FIRM (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

## GEORGIA FLOOD MAP PROGRAM

Property Flood Risk:

Moderate Risk

Flood Depths\*:

0.4 ft  
0.2% ANNUAL CHANCE  
(500 YEAR)  
FLOOD DEPTH  
1% ANNUAL CHANCE  
(100 YEAR)  
FLOOD DEPTH  
10% ANNUAL CHANCE  
(10 YEAR)  
FLOOD DEPTH

Risk Info  
Current Flood Zone: X-SHADED  
\*Probability of Flooding (30-Year Period): Not Available  
Base Flood Elevation: Not Available  
Lowest Adj. Grade: Not Available  
Preliminary Flood Zone: Not Available  
Flood Zone Change Type: Not Available

(GRAPHIC NOT TO SCALE)

\*Above lowest adjacent grade

### Location Information

Panel:	13089C0159J
Watershed:	Upper Ocmulgee
County:	DEKALB
Community ID:	13089C
Map Status:	EFFECTIVE

\* Flood Depths shown on this report are derived from FEMA RiskMAP products and are rounded to the nearest tenth of a foot. These depths are calculated from HEC-RAS modeling and represent the best available data. Only areas within a RiskMAP studied watershed will have this data available. Please check back if your area is not currently available. For more information, please visit the FEMA Map Service Center at <https://mfc.fema.gov/portal/resources/fag>

### Nature Doesn't Read Flood Maps

Many people don't understand just how risky the floodplain can be. There is a greater than 26% chance that a non-elevated home in the SFHA will be flooded during a 30-year mortgage period.

The chance that a major fire will occur during the same period is less than 10%!

FOR MORE INFORMATION VISIT, PLEASE VISIT:



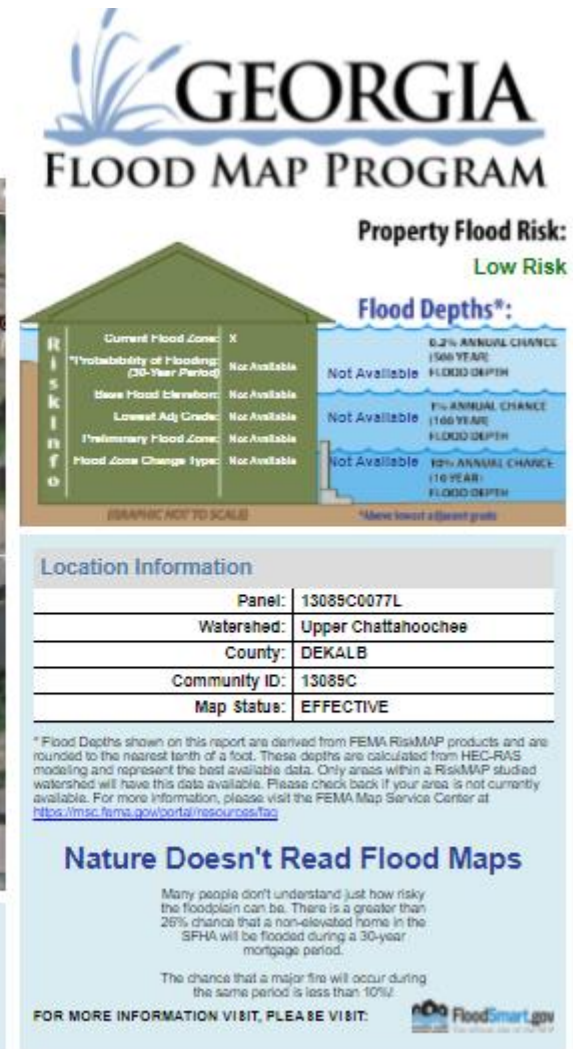
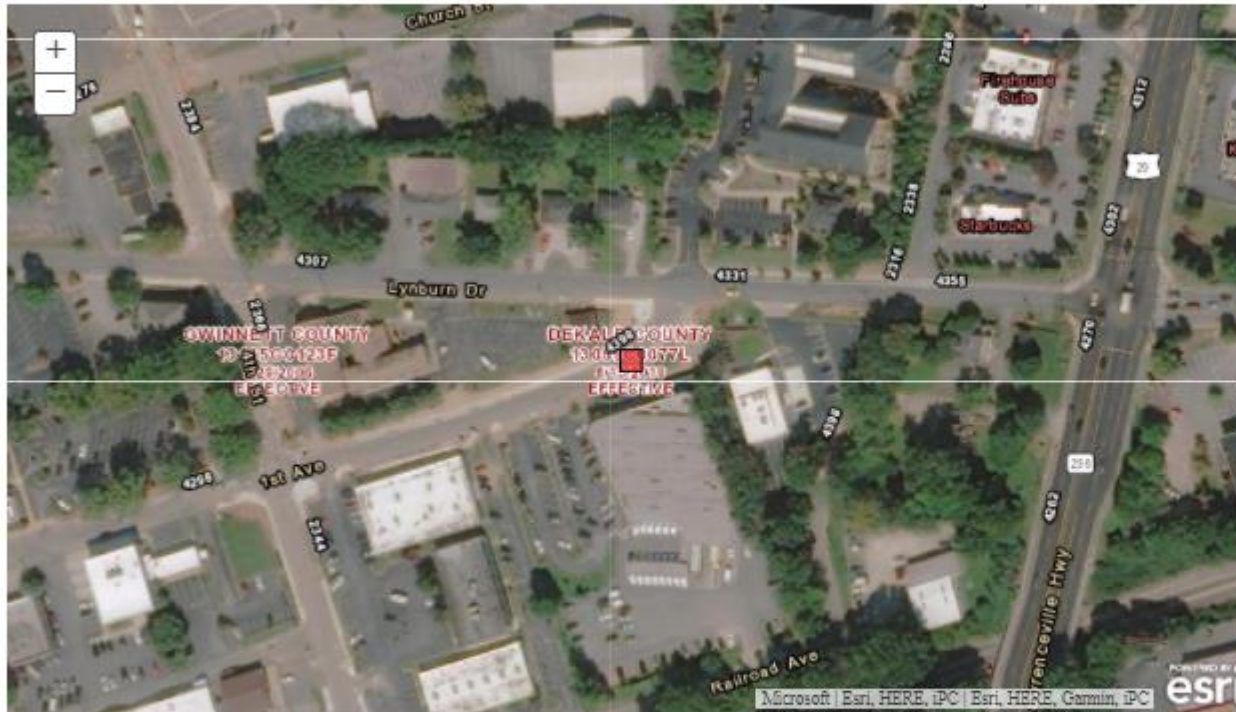




## SECTION 4: RISK ASSESSMENT

Map 37: Georgia DFIRM Map – Tucker, GA

### Tucker, Georgia

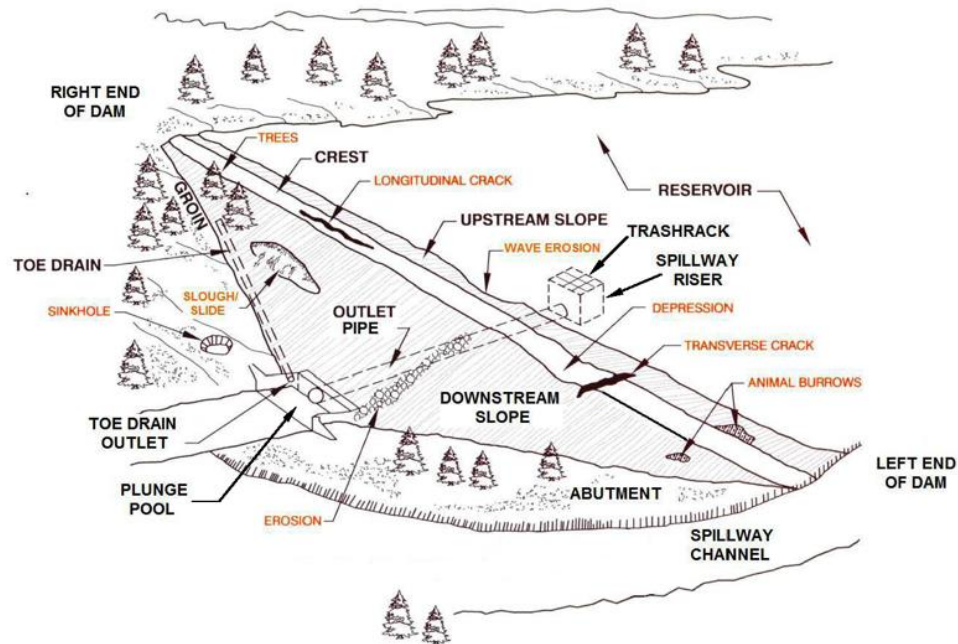


Disclaimer: This data is not to be used to determine any base flood elevations or flood zone designations for NFIP (National Flood Insurance Program) purposes. For NFIP Flood Insurance and regulation purposes, please refer to the published effective FIRI (Flood Rate Insurance Map) for your area of concern. Values displayed for Current Flood Zone, Preliminary Flood Zone, Flood Zone Change Type, and Probability of Flooding over a 30-year period based on center of dot location, not extent of structure(s).

Map Source: Georgia Flood Map Program: <https://map.georgiadfirm.com/>

### Dam Failure

Across the State of Georgia, there are roughly 5,000 dams holding back natural and manmade bodies of water, including lakes, rivers, ponds, etc. The following drawing, obtained from the Georgia Safe Dams Program, shows the characteristics of a typical embankment dam. Common deficiencies are presented in orange.



The National Inventory of Dams (NID) indicates that there are 59 dams in DeKalb County. According to the Massachusetts Institute of Technology, the average lifespan of a dam is 50 years. At least 63% of dams in DeKalb County are over 50 years old. NID classifies 31% of the dams in DeKalb County to have a high-hazard potential. Dams assigned the high hazard potential classification are those where failure or misoperation will probably cause loss of human life. (<https://nid.usace.army.mil/>).

Given these numbers, the possibility of dam failure, and subsequently high-velocity flooding, clearly exists within the planning area. A dam failure within DeKalb County and its participating jurisdictions could result in significant loss of life and damage to structures, roads, utilities, crops, and livestock. Economic losses could also result from a lowered tax base, lack of utility profits, disruption of commerce and governmental services, and extraordinary public expenditures for food relief and protection. The potential severity of a dam failure depends on the following factors:

- the size of the dam
- the nature of the failure
- the velocity of the floodwater released,
- the density of the built environment and populations downstream
- the volume of water impounded by the dam

As dams continue to age, there is an increased potential of failure due to undesirable woody vegetation on the embankment, deteriorating concrete, and other structural factors that can cause issues over time. A



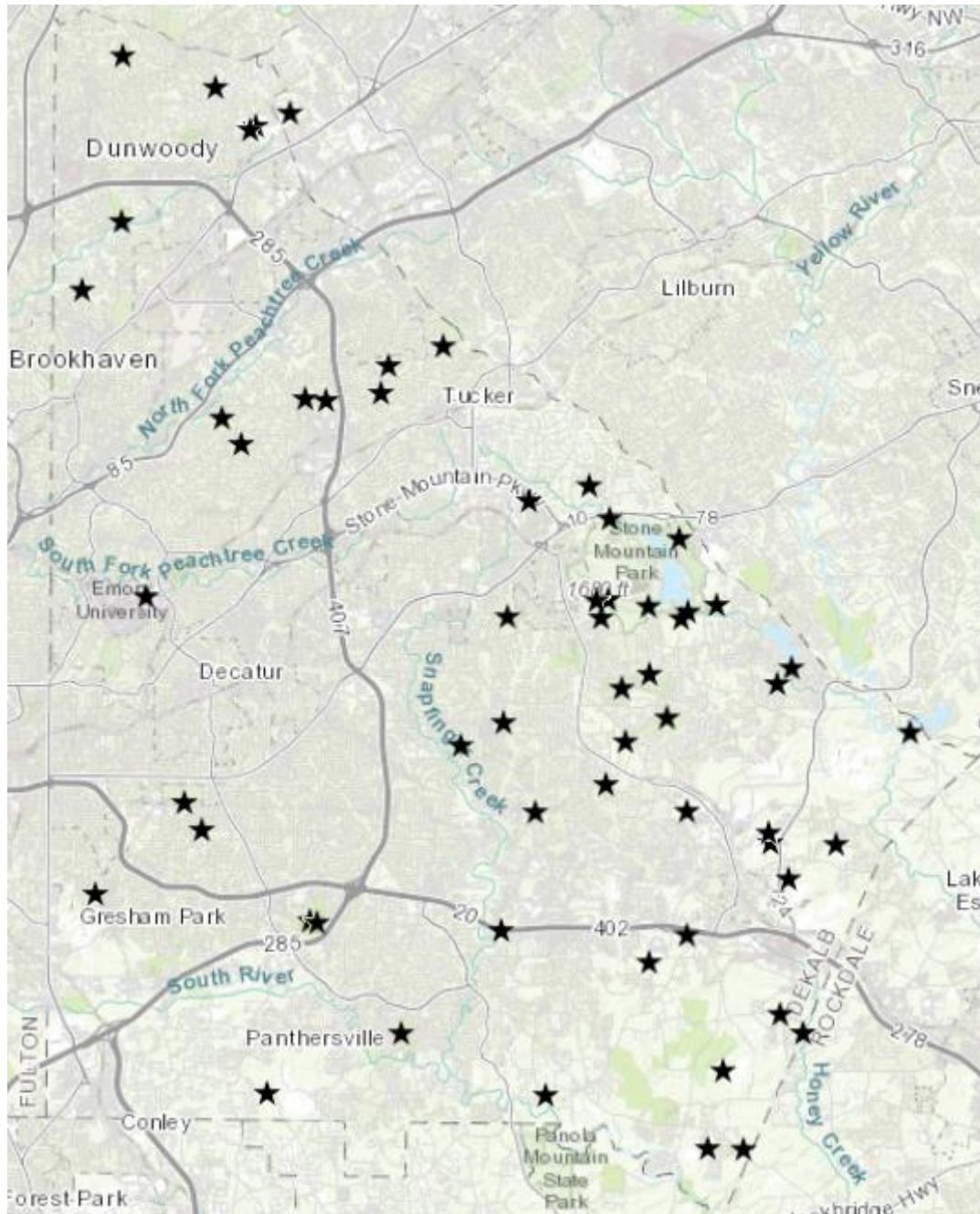


## SECTION 4: RISK ASSESSMENT

failure could lead to widespread flooding, putting the entire planning area at risk, particularly those living near a dam.

Currently, there is still not a standard scale to describe the extent of a dam failure based on the geographic location of the dam and the severity of a failure.

*Map 38: DeKalb County Dams*

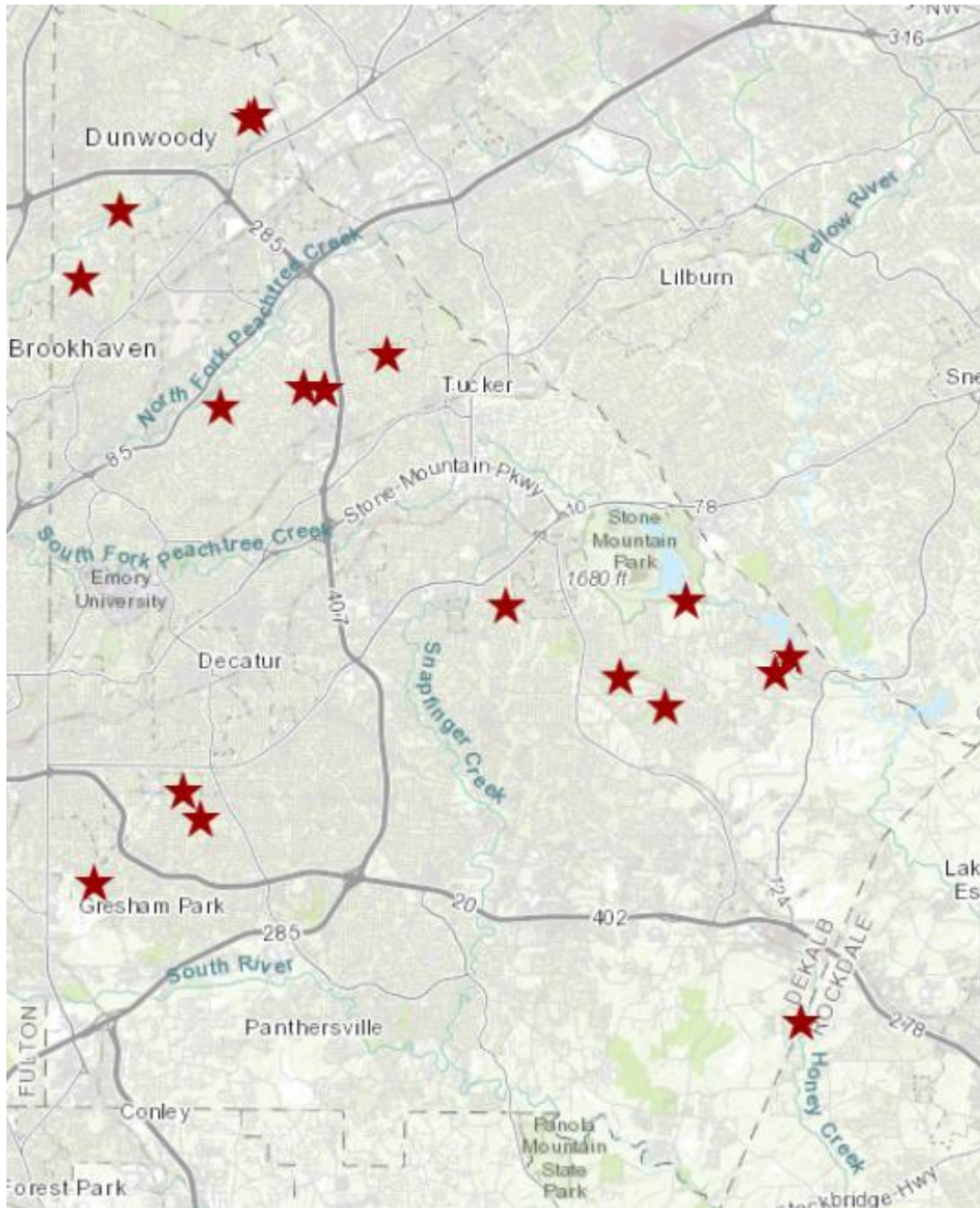


*Map Source: National Inventory of Dams*



## SECTION 4: RISK ASSESSMENT

Map 39: DeKalb County High Hazard Dams



Map Source: National Inventory of Dams

Georgia's Safe Dam Program, which is regulated by the Georgia Environmental Protection Division, is a part of the Georgia Safe Dams Act, O.C.G.A. Secs. 12-5-370 et seq (<https://epd.georgia.gov/watershed-protection-branch/safe-dams-program>). This program is responsible for developing and maintaining an inventory of dams, classifying dams, and ensuring the compliance of all regulated dams. A dam considered under this Act is a structure that must either be at least 25 feet tall (vertical height) or store at least 100 acre-feet (volume) at maximum storage.





## SECTION 4: RISK ASSESSMENT

Table 28: Inventory of DeKalb County, GA Dams

Dam Name	Dam Hazard Classification	State ID
Browns Mill Lake Dam	II	044-055-00794
Buena Vista Lake Dam	I	044-023-00538
Chapel Hill Park Lake Dam	II	044-047-00865
Crooked Creek Lake Dam	I	044-100-04375
Davidson Mineral Properties	II	044-042-00706
Dunwoody Club Crossing Lake Dam	II	044-104-04510
East Lake Country Club Dam	I	044-006-00069
Echo Lake Dam	I	044-007-00172
Erin Lake Dam	I	044-004-00033
Exchange Park Lake Dam (Upper)	II	044-053-00792
Forest Lake Dam	II	044-040-01043
Glen Emerald Lake Dam	I	044-048-00865
Houseworth Lake Dam	II	044-110-04963
Howell Lake Dam	II	044-081-01106
Joels Lake Dam	II	044-031-00471
Kenilworth Lake Dam	I	044-005-00053
Key Lake Dam	II	044-060-00799
Kings Cliff Lake Dam	I	044-089-02710
Kingsley Lake Dam	II	044-018-00365
Kristina Lake Dam	II	044-091-00240
Mathis Lake Dam (Lower)	II	044-058-00797
Mcdaniel Lake Dam	II	044-084-01110
Murphey Candler Lake Dam	I	044-002-00005
Mystery Valley Lake Dam	I	044-038-00703
Norris Lake Shores Dam	II	044-022-00660
North Lake Dam	I	044-012-00171
O'neal Lake Dam	II	044-021-00360
Robert Nash Lake Dam	II	044-076-00899
Rockbridge Lake Dam	II	044-008-00065
Sandy Lake Dam	II	044-010-00143
Scott Candler Reservoir #2	I	044-108-05350
Scott Candler Reservoir Dam #1	I	044-024-00377
Silver Lake Dam	I	044-001-00004
Silver Ridge Lake Dam	II	044-097-04206
Simpson Lake Dam	II	044-056-00795
Southland Lake Dam	I	044-046-00782
Stn Mtn Pk Golf Course Lake Dam	II	044-083-01108
Stone Mountain Park Dam-North	II	044-080-01105



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Dam Name	Dam Hazard Classification	State ID
Stone Mountain Park Dam-South	II	044-082-01107
Stone Mountain Park Lake Dam	I	044-003-00037
Stoneleigh Lake Dam	II	044-050-01657
Timber Trace Lake Dam	II	044-103-04480
Turner Hill Lake Dam	I	044-107-04563
Walden Lake Dam	II	044-043-00707
Ward Lake Dam	II	044-041-00705
Water's Edge Lake Dam	I	044-101-04422
Browns Mill Lake Dam	II	044-055-00794
Buena Vista Lake Dam	I	044-023-00538
Chapel Hill Park Lake Dam	II	044-047-00865
Crooked Creek Lake Dam	I	044-100-04375
Davidson Mineral Properties	II	044-042-00706
Dunwoody Club Crossing Lake Dam	II	044-104-04510
East Lake Country Club Dam	I	044-006-00069
Echo Lake Dam	I	044-007-00172
Erin Lake Dam	I	044-004-00033
Exchange Park Lake Dam (Upper)	II	044-053-00792
Forest Lake Dam	II	044-040-01043
Glen Emerald Lake Dam	I	044-048-00865
Houseworth Lake Dam	II	044-110-04963
Howell Lake Dam	II	044-081-01106
Joels Lake Dam	II	044-031-00471
Kenilworth Lake Dam	I	044-005-00053
Key Lake Dam	II	044-060-00799
Kings Cliff Lake Dam	I	044-089-02710
Kingsley Lake Dam	II	044-018-00365
Kristina Lake Dam	II	044-091-00240
Mathis Lake Dam (Lower)	II	044-058-00797
Mcdaniel Lake Dam	II	044-084-01110
Murphey Candler Lake Dam	I	044-002-00005
Mystery Valley Lake Dam	I	044-038-00703
Norris Lake Shores Dam	II	044-022-00660
North Lake Dam	I	044-012-00171
O'neal Lake Dam	II	044-021-00360
Robert Nash Lake Dam	II	044-076-00899
Rockbridge Lake Dam	II	044-008-00065
Sandy Lake Dam	II	044-010-00143
Scott Candler Reservoir #2	I	044-108-05350



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Dam Name	Dam Hazard Classification	State ID
Scott Candler Reservoir Dam #1	I	044-024-00377
Silver Lake Dam	I	044-001-00004
Silver Ridge Lake Dam	II	044-097-04206
Simpson Lake Dam	II	044-056-00795
Southland Lake Dam	I	044-046-00782
Stn Mtn Pk Golf Course Lake Dam	II	044-083-01108
Stone Mountain Park Dam-North	II	044-080-01105
Stone Mountain Park Dam-South	II	044-082-01107
Stone Mountain Park Lake Dam	I	044-003-00037
Stoneleigh Lake Dam	II	044-050-01657
Timber Trace Lake Dam	II	044-103-04480
Turner Hill Lake Dam	I	044-107-04563
Walden Lake Dam	II	044-043-00707
Ward Lake Dam	II	044-041-00705
Water's Edge Lake Dam	I	044-101-04422

Data Source: Georgia Safe Dams Program

### 4.4.3 – Previous Occurrences

#### Flood Events

The NOAA NCEI Storm Events Database provides reliable information on flood events in DeKalb County beginning in 1997. Between 1997 and 2019, flood events have impacted DeKalb County and the incorporated communities within its boundaries 47 times. These events caused no deaths, no injuries, and approximately \$17.135 million in property damage. Between January 1, 2016, and December 31, 2020, flood events have impacted DeKalb County and the incorporated communities within its boundaries 3 times. These events caused 0 death, 0 injuries, and approximately \$25,000 in damage.

Table 29: Flood Events (1997-2020)

Flood Events (1997-2020)					
Decade	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
1990s	4	0	0	\$19K	\$0
2000s	24	0	0	\$16.826M	\$0
2010s	17	0	0	\$470K	\$0
2020	2	0	0	\$0	\$0
<b>Total</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>\$17.135M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database



## SECTION 4: RISK ASSESSMENT

Table 30: Flood Events (2016-2020)

Flood Events (2016-2020)					
Year	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
2016	0	0	0	\$0	\$0
2017	1	0	0	\$25K	\$0
2018	0	0	0	\$0	\$0
2019	0	0	0	\$0	\$0
2020	2	0	0	\$0	\$0
<b>Total</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>\$25K</b>	<b>\$0</b>
<b>Average</b>	<b>0.6</b>	<b>0</b>	<b>0</b>	<b>\$5K</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

**March 8, 1998, Flash Flood Event:** After over an inch-and-a-half of rain the preceding two days, showers and thunderstorms dumped another 2 or more inches in a six-hour period over the Atlanta metro area. Peachtree Creek as well as Nancy and Sope Creeks rose rapidly and came out of their banks. A foot of water was over some roads and basements of homes near the creeks were flooded. The event caused approximately \$10,000 in property damage.

**September 9, 2000, Flash Flood Event:** The Atlanta Journal and Constitution reported that 3 to 4 inches of rain in a 2-to-3-hour period resulted in significant flooding. Forty-eight families had to be evacuated from an apartment complex on Memorial Drive in Decatur when water from Sugar Creek spilled over its banks and into the apartments. Flash flooding was also reported in Decatur. Road closures were required on Commerce Drive at Clairmont Road and College Avenue at Candler Road. On Electric Avenue, an unoccupied car was found with flood waters clear up to the roof. At Agnes Scott College in Decatur, East College Avenue was flooded as well. The event caused approximately \$15,000 in property damage.

**May 6, 2003, Flash Flood Event:** Very heavy rain forced Peachtree Creek in North Atlanta to rise quickly to flood stage. The creek crested at 18.5 feet around 4 am EDT, 1.5 feet above the flood stage of 17.0 feet. Flooding of nearby roads, including Hanover West Drive, resulted. The lower levels of several apartments nearby were flooded as well as yards of homes near the creek. Nancy Creek, which flows into Peachtree Creek, was also in flood because of the heavy rain. The event cause approximately \$250,000 damage.

**June 16-17, 2003, Flash Flood Event:** Fox 5 News of Atlanta reported that extensive flooding was occurring in the Brookhaven area. Several hundred people in Brookhaven had to be rescued from their apartments. This flooding was attributed to the rapid rise of Peachtree Creek. In some places the water was 10 feet deep. Several other roads across the northern portion of the county were also flooded, including Clairmont Road and Buford Highway. One resident on Drew Valley Road in Decatur reported that her neighbor's play set washed into her yard over an 8-foot fence. The event caused \$500,000 in property damage.

**September 16-17, 2004, Flash Flood Event:** Numerous reports were received from the DeKalb County Emergency Manager, the media, and the public of extensive flooding across much of the Atlanta metropolitan area, especially the northern parts of the county. Widespread flooding of roads, streets, and



## SECTION 4: RISK ASSESSMENT

highways was reported throughout the county, several of which had to be closed. Many homes, businesses, property, and vehicles across the county were flooded during this event. Major flooding was reported in many areas of the central and northern parts of the county, specifically between Interstates 20 and 285. Some of these areas experienced catastrophic and historical flooding, with some of the worst flooding observed in nearly 100 years. National Weather Service river gages showed that Peachtree Creek and Nancy Creek quickly rose to record flood levels during the late evening hours. Peachtree Creek rose above its flood stage of 17 feet at 545 pm EDT, then went into record flood stage at 845 pm EDT, then fell below flood stage between 5 and 6 am EDT September 17th. The river crested at 22.7 feet, which is 5.7 feet above flood stage and 1.5 feet above the record flood stage of 21.1 feet, previously reached in 1990. The river gage on Peachtree Creek was washed away during this event. Hundreds of residents along and near Peachtree Creek had to be evacuated, some by boat. Twenty-five to 50 homes and several apartment complexes, including the Peachtree Apartments, were impacted by the flood waters, many sustaining significant and extensive damage. Record flooding was also observed on Nancy Creek, which reached its 11-foot flood stage at 600 pm EDT, reached a record flood stage of 15 feet at 1130 pm EDT, then fell below flood stage around 4 am EDT September 17th. The impact in this area was like that near Peachtree Creek, with dozens of homes flooded and many residents having to be evacuated. In Decatur, one home was devastated when the waters of Peavine Creek rose over two feet in the basement of one home. Several sinkholes were left in the county after the flooding receded, the largest being a 65 by 25-foot sinkhole on Durrett Way in Dunwoody. The event caused approximately \$5 million in property damage.

**September 27-28, 2004, Flash Flood Event:** The DeKalb County Emergency Management Director reported major flooding was once again observed along Peachtree and Nancy Creeks across the northern portion of Atlanta. This information was confirmed by National Weather Service river gages on these creeks. The creek was within two feet of the record stage reached just 10 days earlier during the remnants of Hurricane Ivan. Major flooding affected many roads and homes, many of which were the same ones affected just 10 days prior. The Peachtree Apartments were flooded. Several evacuations and rescues were required. All flooding was the result of heavy rain which persisted on the northwest side of the remnants of Hurricane Jeanne as it moved through East Central Georgia. This event caused \$1 million in property damage.

**September 16-21, 2009, Flood/Flash Flood Event:** A historical, record, and catastrophic flood event unfolded during this period, mostly in the west central Georgia area, including the western and northwestern suburbs of Atlanta. Major flooding was noted in many other areas of north and central Georgia, including the eastern suburbs of Atlanta, northwest Georgia, and parts of central Georgia. The culprit was a very stagnant upper atmospheric pattern featuring a weak upper low that developed in early September across south Texas and slowly migrated east-northeast through September 22nd, until a more significant upper trough dropping south into the southern plains finally moved the pesky upper low northeast of Georgia. In addition, an unusually deep tropical flow was noted throughout this period. Precipitable water values exceeded 2.0 inches across the area during much of this period, resulting in extremely efficient rain producing cells. Persistent heavy rain showers and thunderstorms began to plague the area on the 16th and persisted daily through the 21st across parts of north and central Georgia.

However, the catastrophic flooding unfolded when a sea breeze moving northwest merged with existing outflow boundaries and higher terrain across the western suburbs of Atlanta to result in persistent heavy thunderstorms for a period of at least 12 hours that trained across the same counties west of Atlanta, generally affecting Carroll, Douglas, Paulding, and Cobb counties. As the activity progressed across the state, significant flooding unfolded further east, including Fulton County, and the city of Atlanta, DeKalb, and Gwinnett counties. Incredible rainfall amounts of 15 to over 20 inches, were observed from northeast Carroll, through much of Douglas, into eastern Paulding and southern Cobb counties. Rainfall amounts of 10 to 15 inches were noted across parts of Fulton, DeKalb, and Gwinnett. Rainfall amounts of 8 to 12 inches were noted in other spottier areas of northwest, north central, and central Georgia during this period.





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The excessive rainfall on top of saturated ground resulted in some of the worst flooding ever reported in the Atlanta and north Georgia area. Eleven deaths were recorded during the event, mostly vehicle related deaths at night from washed out bridges and roads because of swollen creeks. Property damages are estimated to be at least \$0.5 Billion, with hundreds of homes and businesses destroyed by flood waters. Bridges on several state and local highways were washed out and some will take months to even a year to replace. Eighteen counties (Bartow, Carroll, Chattooga, Cherokee, Cobb, Coweta, DeKalb, Douglas, Fulton, Gwinnett, Heard, Newton, Paulding, Rockdale, Stephens, and Walker) received a presidential disaster declaration because of the historic floods. Twenty-one counties were declared eligible for public assistance, including several central Georgia counties that were affected by flash flooding earlier in the period.

Some of the worst flooding was observed along Sweetwater Creek near the Cobb, Fulton, Douglas County line. Hundreds of homes were flooded and destroyed as the waters of Sweetwater Creek rose more than 20 feet above flood level.

Many main stem and secondary creeks, streams, and rivers across north and central Georgia, particularly in northwest and west central Georgia, reached record flood levels. Many of these same creeks, streams, and rivers remained in flood for several days. In some cases, record flood levels were recorded. The following is a list of new record flood levels set on several creeks, streams, and rivers in north and west Georgia. Noonday Creek near Woodstock rose to 19.6 feet on the 21st at 530 pm EDT. The previous record was 16.30 feet set on July 11, 2005. Nickajack Creek at Mableton reached 19.30 feet on the 22nd at 215 am EDT. The previous record was 16.60 feet set on July 11, 2005. The North Fork of Peachtree Creek at Atlanta rose to 18.07 feet on the 21st at 715 pm EDT. The previous record was 17.70 feet set on September 16, 2004. Utoy Creek near Atlanta rose to 27.04 feet on the 22nd at 1000 am EDT. The previous record was 16.86 feet set on May 6, 2003. The Chattahoochee River at Whitesburg rose to 29.61 feet on the 21st at 745 pm EDT. The previous record was 29.11 feet on December 11, 1919. Suwanee Creek at Suwanee rose to 14.30 feet on the 21st at 645 pm EDT. The previous record was 12.04 feet set on October 5, 1996. The Yellow River at Lithonia rose to 25.50 feet on the 22nd at 515 am EDT. The previous record was 17.53 feet set on May 7, 2003. The Yellow River near Conyers below Milstead rose to 22.54 feet on the 22nd at 500 pm EDT. The previous record was 16.36 feet set on July 8, 2005. The Chattahoochee River at Franklin rose to 29.98 feet on the 22nd at 500 pm EDT. The previous record was 28.40 feet set on December 15, 1919. The Sweetwater Creek at Austell rose to 30.17 feet on the 22nd at 1000 pm EDT. The previous record was 21.81 feet on July 12, 2005.

The following rivers reached flood levels that were within the top five all time levels at these locations. Peachtree Creek in Atlanta rose to 23.89 feet on the 21st at 915 pm EDT. The record is 25.80 feet recorded on December 20th, 1919. Nancy Creek in Atlanta reached 14.69 feet on the 21st at 930 pm EDT. The record is 15.50 feet on December 1, 1973. The Chattahoochee River at Vinings reached 28.10 feet on the 22nd at 1200 am EDT. The record is 29.0 feet set on December 10, 1919. The South Fork of the Peachtree Creek reached 15.21 feet on the 22nd at 1200 am EDT. The record is 29.0 feet set on December 10, 1976. The Chattahoochee River at Campbellton reached 30.55 feet on the 22nd at 300 pm EDT. The record is 31.60 feet set on December 10, 1919.

Several USGS stream gages showed significant flooding commencing during this time frame across DeKalb County as thunderstorms with heavy rain, which had been west of the area most of the night, began to edge east-northeast and develop across Fulton, DeKalb, and Gwinnett counties. The South Fork of Peachtree Creek at Johnson Road reached its flood stage of 12.0 feet at 128 am EDT. The North Fork of Peachtree Creek at Buford Highway reached its flood stage of 12.0 feet at 201 am EDT. Many homes, apartments, and businesses began to experience significant flooding during this time frame, especially in the vicinity of the flooded creeks. Several roads also became flooded, impassable, and were closed.



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Record, and in some cases catastrophic, flooding continued to expand across the northern and western portions of the Atlanta metropolitan area as renewed rounds of showers and thunderstorms with very heavy rain tracked repeatedly over the same areas throughout the day. Portions of hundreds of roads in the county were closed from flooding and washed-out bridges and/or culverts. Hundreds of homes, apartments, and businesses sustained significant flood damage. Record flooding was occurring on Peachtree Creek, the North Fork of Peachtree Creek, and Nancy Creek in northeast Atlanta. The interchange of Interstate-285 and Interstate-85 in northeast DeKalb County, known as Spaghetti Junction was completely shut down for nearly an hour early on the 21st because of flooding. Major traffic backups occurred as a result. A mud slide blocked two westbound lanes of U.S. Highway 78 at Hugh Howell Road. Other mud slides were reported within the county. These are just some of the more significant examples of flood damage in the county.

DeKalb County Emergency Management personnel and USGS stream gages confirmed that major to record flooding continued to expand into all parts of the county. Hundreds of homes, apartments, businesses, and roads sustained damages from flooding. Several culverts and/or bridges were washed out and several roads were closed. Flood waters began to recede after 830 am EDT on the 22nd, however, many areas remained in major to record flood through 715 am EDT on the 23rd. This event was one of the most significant flooding events in DeKalb County history. It caused approximately \$10 million in property damage. Disaster Declaration DR-1858-GA was declared for this event.

**May 3, 2010, Flash Flood Event:** A deep upper-level trough was shifting slowly east from the central U.S. into the eastern U.S. A leading cold front was located from New York to Alabama. A summerlike subtropical ridge across the southeast U.S. was slowly shifting off the southeast U.S. coast. The highly meridional flow had allowed an unusually deep tropical air mass to spread far northward across the eastern half of the U.S. This weather system had been responsible for widespread catastrophic flooding in western and middle Tennessee during the previous three days. As the system moved toward Georgia, it began to weaken considerably, and the main dynamics lifted northeast more toward the mid-Atlantic. Nonetheless, the slow movement of the system brought several rounds of showers and thunderstorms to the area with two-day rainfall of 3-4 inches. Flash flooding was observed in several counties on the northwest and west side of Atlanta, some of the same counties that experienced catastrophic flooding during late September 2009. Flash flooding during this event was far less significant. Severe weather was isolated and confined to east central Georgia toward the end of the event on the 3rd.

Several creeks across DeKalb County reached and exceeded flood stage during this period. This was verified by USGS stream gages. On the South Fork of the Peachtree Creek at Johnson Road, the flood stage of 12.0 feet was reached at 640 am EDT. The creek continued to rise and crested at 14.1 feet at 815 am EDT. The North Fork of Peachtree Creek at Buford Highway reached its flood stage of 12.0 feet at 710 am EDT, then crested at 15.1 feet at 130 pm EDT. On Snapfinger Creek in the southern part of the county, the flood stage of 12.0 feet was reached at 740 am EDT. The creek continued to rise to 12.7 feet at 915 pm EDT. The DeKalb County Emergency Management Director reported that flood waters from the upper South Fork of Peachtree Creek flooded the crawl spaces of several apartments on Lansbury Village Drive. Forty-five people had to be evacuated until the buildings were inspected and cleared of structural problems related to the flood waters. The event caused approximately \$50,000 in property damage.

**July 17, 2013, Flash Flood Event:** An upper ridge remained over the Ohio Valley and Great Lakes area, with easterly flow dominating across the Southeast. An upper disturbance moving across in the easterly flow combined with the continued moist and unstable airmass allowed numerous showers and thunderstorms to develop during the afternoon and evening hours. Many of these became severe with damaging winds and even some reports of large hail. Isolated flash flooding was reported as well.

DeKalb County Emergency Management reported an apartment off Lansbury Village Drive was flooded with several inches of water by Peachtree Branch overflowing its banks. Also, the upper end of the North



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Fork Peachtree Creek in the Doraville area experienced minor flooding. The event cause approximately \$10,000 in property damage.

**August 21, 2013, Flash Flood Event:** A weak frontal boundary remained stalled over central Georgia on the 21st. A warm and moist airmass remained in place, and once again several showers and thunderstorms developed. A couple of these produced isolated flash flooding in north Georgia, and one briefly became severe with damaging winds.

DeKalb County Emergency Management reported the South Fork Peachtree Creek came out of its banks and caused minor flooding near Orion Drive and Lawrenceville Highway. The same creek also flooded portions of Medlock Park and athletic fields with up to 3 feet of water. Three homes on Scott Circle near the creek had flood waters enter their crawl spaces. A portion of Snapfinger Creek came out of its banks and flooded a home on Rowland Road with around one inch of water. The stage height at a USGS stream gage on Stone Mountain Creek at Silver Hill Road reached flood stage of 9 feet. The creek crest at 9.1 feet. Minor flooding occurred in the woodlands and residential yards along the creek. The event caused approximately \$15,000 in property damage.

**August 9-10, 2014, Flash Flood Event:** Slow moving thunderstorms with heavy rain of 3 to 4 inches in less than 3 hours produced isolated flash flooding in an eastern portion of the Atlanta metro area. The public reported minor flooding of residential yards along portions of Snapfinger, Cobb, Shoal, Intrinchment and Stone Mountain Creeks in portions of central and south DeKalb County. The overflow of water from Snapfinger Creek flooded several cars in the Redan Village Apartments complex off of Redan Road. The event caused approximately \$30,000 in property damage.

**December 24, 2015, Flash Flood Event:** Persistent, deep, and strong southwesterly upper-level flow across the eastern U.S. resulted in an extremely moist and moderately unstable atmosphere over North and Central Georgia. A stalled frontal boundary and a series of short waves in the southwesterly upper flow resulted in multiple rounds of heavy rain, and strong to severe thunderstorms, with widespread flash flooding, damaging thunderstorms winds, hail and an isolated tornado.

A USGS stream gauge on North Fork Peachtree Creek at Buford Highway or Georgia Highway 13 near Atlanta reached flood stage of 13 feet. The creek crest at 14.8 feet. Significant flooding occurred upstream and downstream from the gauge. Large portions of the backyards of residential homes on Victory Drive...Dunwoody Place and Converse Drive flooded with around two feet of water. A portion of the Sun Tan Center parking lot near the gauge flooded. A few roads and culverts in the area were damaged or washed out.

A USGS stream gauge on the South Fork Peachtree Creek at Johnson Road near Atlanta reached flood stage of 13 feet. The creek crest at 13.9 feet. Minor flooding occurred upstream and downstream from the gauge. Portions of backyards of residential homes on Noble Drive...Helen Drive and Kay Lane were flooded with around one foot of water. A few roads and culverts were damaged or washed out in the area. The event caused approximately \$300,000 in property damage.

**June 20, 2017, Flash Flood Event:** A stalled frontal boundary and anomalously moist air mass produced high rainfall amounts for several days, beginning June 19th. Multiple waves of precipitation including many training storms dropped high rainfall amounts over the metro Atlanta area and along the I-20 corridor. Rainfall amounts were generally 4-6 inches, with isolated amounts approaching 8 inches. Flash flooding resulted, especially within the Nancy Creek, North Fork Peachtree Creek and Yellow River basins.

Heavy rainfall resulted in flash flooding across northern DeKalb County, especially in areas along Nancy and Peachtree Creeks. Emergency Management reported residential water rescues occurred at locations on Warrenhall Lane along Nancy Creek. Flood waters also covered Bamby Lane along North Fork



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Peachtree Creek, and Cove Circle and Burch Circle in the Drew Valley Neighborhood. A smaller creek flowed out of its banks and inundated Dresden Road. A person was rescued near the intersection of Oakcliff Road and Pleasantdale Road after their vehicle stalled in approximately two feet of water. Portions of South Fork Peachtree Creek flooded, eroding the area around Plantation Park Apartments, resulting in a partial collapse of the foundation. No injuries were reported. Rainfall estimates indicate that widespread 3 to 6 inches of rain occurred over northern DeKalb County. The event caused approximately \$25,000 in property damage.

**April 13, 2020, Flood Event:** A powerful Spring storm system resulted in a Severe Weather / Tornado outbreak across much of the Southeast region, including north and central Georgia, beginning on Easter Sunday (April 12th) and lingering into the morning hours of April 13th. From the Storm Prediction Center (Day 1) convective outlook, just about the entire area was under an Enhanced Risk for severe weather with a Moderate Risk extending into western Georgia. In addition, enhanced rainfall occurred over far north Georgia and in portions of central Georgia, with rainfall amounts ranging from 3 to 8 inches through the event. Significant flooding was in portions of the area with numerous reports of washouts and several reports of rescues. DeKalb County Emergency Management reported flooding on the 600 block of Rockborough Drive. Rainfall amounts of 1 to 2 inches occurred in the area, causing the flooding. The event caused no property damage.

**August 3, 2020, Flash Flood Event:** Widespread thunderstorms along and ahead of a stationary front across north and central Georgia resulted in scattered severe thunderstorms with numerous reports of damaging thunderstorm winds and several reports of large hail. Localized flash flooding occurred in Fulton and DeKalb counties following a quick 3 to 5 inches of rain. The broadcast media reported flooding of both lanes of Peachtree Boulevard, near the intersection with Broad Street. The water reached halfway up the tires of cars driving by. Radar estimates indicate that 3 to 4 inches of rain occurred in the area. The event caused no property damage.



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Table 31: Repetitive Loss Properties, DeKalb County and All Participating Jurisdictions

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	105333.56	29799.59	6	135133.15	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	17830.72	765	3	18595.72	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	56897.91	31565.12	5	88463.03	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	66479.81	27645.65	6	94125.46	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	196822.84	78978.37	9	275801.21	Y	Y	N	Y	N
DECATUR, CITY OF	135159	SINGLE FMLY	NO	72644.01	11673.09	5	84317.1	Y	Y	N	Y	N
CHAMBLEE, CITY OF	130066	SINGLE FMLY	YES	18012.92	0	5	18012.92	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	65298.67	1276.64	3	66575.31	Y	N	N	N	N





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Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
CHAMBLEE, CITY OF	130066	SINGLE FMLY	NO	13040.69	5500	3	18540.69	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	31601.81	11323.06	3	42924.87	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	YES	4172.16	1136.8	2	5308.96	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	80180.33	10891.28	10	91071.61	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	6317.29	3365.2	2	9682.49	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	43215.4	30889.65	7	74105.05	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	10013.14	14488.8	4	24501.94	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	YES	7647.15	3206.37	2	10853.52	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5931.27	0	2	5931.27	Y	N	N	N	N



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Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	65739.7	0	5	65739.7	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	378690.93	39034.29	7	417725.22	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	57060.36	20362.26	7	77422.62	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	4130.4	2281.1	3	6411.5	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	12172.14	5059	2	17231.14	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	21892.11	15924.2	5	37816.31	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	29222.3	7650	2	36872.3	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	105405.68	20499.05	4	125904.73	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	9074.37	2000	2	11074.37	Y	N	N	N	N



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Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	YES	149796.03	44581.1	5	194377.13	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	11264.62	2243.73	5	13508.35	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	4421.29	0	2	4421.29	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	9414.92	3170.79	3	12585.71	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	115072.5	0	3	115072.5	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	22969.31	5617.07	2	28586.38	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	53588.1	26661.65	5	80249.75	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	14060.05	0	3	14060.05	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	12034.82	0	5	12034.82	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	4900.79	0	2	4900.79	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	12098.78	1681.85	2	13780.63	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	21327.59	334.8	5	21662.39	Y	N	N	N	N
DECATUR, CITY OF	135159	2-4 FAMILY	NO	40192.29	3608.52	3	43800.81	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	128772.39	5884.76	6	134657.15	Y	Y	N	Y	N
TUCKER, CITY OF	130681	SINGLE FMLY	NO	111919.99	30771.81	5	142691.8	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	7694.86	0	2	7694.86	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	51877.5	25860.65	3	77738.15	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	47731.58	7706.32	4	55437.9	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
PINE LAKE, CITY OF	130070	SINGLE FMLY	NO	100218.51	0	3	100218.51	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	34925.99	1400	5	36325.99	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	13007.11	0	2	13007.11	Y	N	N	N	N
DEKALB COUNTY *	130065	2-4 FAMILY	YES	66089.85	0	2	66089.85	Y	N	Y	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	29634.6	5300	3	34934.6	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	7619.77	0	2	7619.77	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	YES	32353.23	5000	4	37353.23	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	78083.14	25147.3	3	103230.44	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	53049.85	14814.02	2	67863.87	Y	N	N	N	N





## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	YES	21720.92	13390.63	2	35111.55	Y	N	N	N	N
TUCKER, CITY OF	130681	SINGLE FMLY	NO	46173.34	1849.54	3	48022.88	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	47743.6	0	5	47743.6	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	YES	42630.76	2062.05	5	44692.81	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5380.94	0	2	5380.94	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	227644.85	99595.08	3	327239.93	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	79342.36	6928.99	4	86271.35	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	18832.94	0	3	18832.94	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	YES	105227.57	23194.62	3	128422.19	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	OTHER RESID	YES	460410.61	27328.65	2	487739.26	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	8031.6	585.34	2	8616.94	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	103742.84	16367.13	3	120109.97	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	143319.18	0	3	143319.18	Y	N	Y	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	218563.25	52798.84	4	271362.09	Y	Y	Y	Y	N
DECATUR, CITY OF	135159	SINGLE FMLY	NO	50179.42	17372.82	3	67552.24	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	173833.71	73831.85	5	247665.56	Y	N	N	N	N
DECATUR, CITY OF	135159	ASSMD CONDO	NO	62933.71	0	4	62933.71	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	102439.64	33844.24	3	136283.88	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	YES	49026.17	10180.71	2	59206.88	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	YES	211171.13	0	2	211171.13	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	YES	392381.56	0	2	392381.56	Y	N	N	N	N
DEKALB COUNTY *	130065	ASSMD CONDO	YES	427631.99	32632.76	2	460264.75	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	9989.52	0	2	9989.52	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	NO	156550.98	14184.85	5	170735.83	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	80404.92	4032.8	3	84437.72	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	25149.12	0	2	25149.12	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	33251.61	1938.88	2	35190.49	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	YES	41388.61	1926.01	3	43314.62	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	13453.87	0	2	13453.87	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	NO	21090.58	0	3	21090.58	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	27218.11	6284.25	3	33502.36	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5608.35	0	2	5608.35	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5891.3	0	2	5891.3	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	19931.81	0	2	19931.81	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	21025.82	0	2	21025.82	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	69478.04	2512.39	6	71990.43	Y	Y	N	Y	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	26120.32	259.09	2	26379.41	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	93981.74	27632.95	2	121614.69	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	30799.17	0	2	30799.17	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	32235.56	0	2	32235.56	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	48449.02	0	3	48449.02	Y	N	N	N	N
STONE MOUNTAIN, CITY OF	130260	SINGLE FMLY	NO	162368.86	21160.2	3	183529.06	Y	N	N	N	N
STONE MOUNTAIN, CITY OF	130260	SINGLE FMLY	NO	10961.68	0	2	10961.68	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	75545.6	0	2	75545.6	Y	N	N	N	N





## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	54910.05	9491.4	3	64401.45	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	29339.54	163.51	3	29503.05	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	15305.31	0	2	15305.31	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	15402.4	0	2	15402.4	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	145366.03	17473.65	5	162839.68	Y	N	Y	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	72622.96	0	4	72622.96	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	0	3849.13	2	3849.13	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	12392.86	0	3	12392.86	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	13981.76	0	2	13981.76	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	26342.38	2523.68	3	28866.06	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	YES	20221.41	0	2	20221.41	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5022.01	14666.2	3	19688.21	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	25469.14	1476	3	26945.14	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	16952.14	1055	4	18007.14	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	9614.44	0	2	9614.44	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	40685.23	0	3	40685.23	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	16490.95	0	2	16490.95	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	2411.89	20000	2	22411.89	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	45337.68	19470.45	2	64808.13	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	28328.98	2530.75	2	30859.73	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	98796.1	35312.62	3	134108.72	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	47474.26	12120.78	2	59595.04	Y	N	N	N	N
DECATUR, CITY OF	135159	SINGLE FMLY	NO	8172.37	411.28	2	8583.65	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	126629.14	21800	3	148429.14	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	122931.85	0	3	122931.85	Y	N	N	N	N
DECATUR, CITY OF	135159	2-4 FAMILY	NO	6932.51	0	2	6932.51	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	20279.37	1770.04	2	22049.41	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	ASSMD CONDO	NO	274728.14	27168.63	2	301896.77	Y	N	N	N	N
STONE MOUNTAIN, CITY OF	130260	SINGLE FMLY	NO	71781.79	39616.36	2	111398.15	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	NO	61656.96	0	2	61656.96	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	45208.4	0	2	45208.4	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	26960.14	8132.11	2	35092.25	Y	N	N	N	N
DEKALB COUNTY *	130065	2-4 FAMILY	NO	37822.39	12900	2	50722.39	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	297724.87	75999.68	6	373724.55	Y	N	Y	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	106391.24	13881.17	3	120272.41	Y	N	N	N	N
CHAMBLEE, CITY OF	130066	SINGLE FMLY	NO	67432.25	20047.44	2	87479.69	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	OTHR-NONRES	NO	126522.6	100000	2	226522.6	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	25385.25	0	2	25385.25	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	20339.97	483.46	2	20823.43	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	190607.25	36954.43	2	227561.68	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	8016.28	0	2	8016.28	Y	N	N	N	N
CHAMBLEE, CITY OF	130066	SINGLE FMLY	NO	83754.43	12470.56	6	96224.99	Y	Y	N	Y	N
DEKALB COUNTY *	130065	2-4 FAMILY	NO	0	6437.95	2	6437.95	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	42090.22	7660.66	4	49750.88	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	22315.7	19966.05	6	42281.75	Y	N	N	N	N





## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DECATUR, CITY OF	135159	SINGLE FMLY	YES	7679.32	745.31	2	8424.63	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	45460.85	0	2	45460.85	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	223922.72	64614.7	2	288537.42	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	15122.28	0	4	15122.28	Y	N	N	N	N
TUCKER, CITY OF	130681	SINGLE FMLY	NO	21260.8	0	2	21260.8	Y	N	N	N	N
TUCKER, CITY OF	130681	SINGLE FMLY	NO	33878.9	0	2	33878.9	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	NO	259760.54	0	2	259760.54	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	18282.65	0	2	18282.65	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	NO	235586.91	0	2	235586.91	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	2-4 FAMILY	NO	101230.88	0	2	101230.88	Y	N	N	N	N
DEKALB COUNTY *	130065	OTHER RESID	NO	254215.41	0	2	254215.41	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	71434.02	0	2	71434.02	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	22514.46	6249.74	2	28764.2	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	18283.03	0	3	18283.03	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	20742.38	632.01	2	21374.39	Y	N	N	N	N
DEKALB COUNTY *	130065	BUSI-NONRES	NO	99584.8	87652.38	6	187237.18	Y	Y	N	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	5200.72	0	2	5200.72	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	10092.86	0	3	10092.86	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
DEKALB COUNTY *	130065	SINGLE FMLY	NO	75879.33	0	2	75879.33	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	43194.54	0	3	43194.54	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	23942.62	0	2	23942.62	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	27031.58	6121.76	3	33153.34	Y	N	N	N	N
DEKALB COUNTY *	130065	BUSI-NONRES	NO	57389.39	0	3	57389.39	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	22661.18	0	2	22661.18	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	37839.05	0	2	37839.05	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	15741.24	0	2	15741.24	Y	N	N	N	N
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	58655.32	0	2	58655.32	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	25635.48	0	3	25635.48	Y	N	N	N	N
DUNWOODY, CITY OF	130679	SINGLE FMLY	NO	14095.46	0	3	14095.46	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	42518.79	0	2	42518.79	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	3588.18	0	2	3588.18	Y	N	N	N	N
DECATUR, CITY OF	135159	OTHER RESID	NO	41171.6	0	2	41171.6	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	201120.17	57072.87	5	258193.04	Y	Y	Y	Y	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	128689.68	41901.41	3	170591.09	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	236563.03	41161.39	3	277724.42	Y	N	Y	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	9106.11	0	2	9106.11	Y	N	N	N	N



## SECTION 4: RISK ASSESSMENT

Repetitive Loss Properties, DeKalb County												
Community Name	Community Number	Occupancy 1	Mitigate	Cumulative Building Payment	Cumulative Contents Payment	Total Losses	Total Paid	Is NFIP Repetitive Loss Flag	Is NFIP Severe Repetitive Loss Flag	Is FMA Repetitive Loss Flag	Is FMA Severe Repetitive Loss Flag	Not Repetitive Loss Flag
BROOKHAVEN, CITY OF	135175	SINGLE FMLY	NO	18089.02	2472.07	2	20561.09	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	6782.13	2699.75	2	9481.88	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	25124.75	0	2	25124.75	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	7485.7	6479.36	2	13965.06	Y	N	N	N	N
DUNWOODY, CITY OF	130679	SINGLE FMLY	NO	16791.17	0	2	16791.17	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	12727.21	0	2	12727.21	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	19097.9	0	2	19097.9	Y	N	N	N	N
DEKALB COUNTY *	130065	SINGLE FMLY	NO	29824.3	10512.12	2	40336.42	Y	N	N	N	N

Data Source: Georgia Emergency Management Agency (GEMA)





## SECTION 4: RISK ASSESSMENT

### 4.4.3A – Probability of Future Events

Table 32: Probability of Future Events, Flood

Probability of Future Events, Flood	
Decade	Number of Events
1990s	4
2000s	24
2010s	17
2020	2
Total	47
Years	23
Average	2.04/year
Likelihood of a Flood Events Each Year = 204%	

Data Source: NOAA/NCEI Storm Events Database

According to the Association of State Dam Safety Officials, there have been no instances of dam failure in DeKalb County. There is no single, comprehensive source of open-source information about a dam failure in the State of Georgia. Though some private dams may have been breached, no records have been found to indicate an emergency response related to it. The probability of a dam failure event occurring within the planning area is reduced due to the continued monitoring and compliance of the Georgia Safe Dam Program.

Based on this data, it is **highly likely** a flooding event will occur every year in DeKalb County and the incorporated jurisdictions within its boundaries. Flooding events will most likely be caused by excessive rainfall. However, it is possible that a flooding event due to a dam failure could occur given the aging infrastructure of dams in the community.

#### 4.4.4 – Vulnerability of Community Assets

*Note: As part of the hazard analysis conducted by the University of Georgia's Carl Vinson Institute of Government, a hypothetical scenario involving flooding was run using Hazus-MH. The Hazus-MH simulation considered the likely impacts of the DeKalb County 1% riverine flooding event.*

#### Vulnerability of People

If evacuation orders are not heeded, or floodwaters rise quickly enough, residents within the planning area can be swept away by floodwater currents, become trapped on rooftops or other points of high elevations, and even sustain injury or death. Depending upon the conditions, this will expose them to the elements and deprive them of basic needs and services.

Still water that is long-lasting and slow to drain will encourage the growth of mold and other bio-hazardous material, rendering a facility unusable. Extra care, assessment, and sanitization are required before residents can re-inhabit a facility, or they may face serious health concerns. Long-term care facilities housing vulnerable populations can take longer to evacuate.

Additionally, the potential presence of mold after a flood requires extra care to be taken before DeKalb County's population can re-inhabit a long-term care facility.



## SECTION 4: RISK ASSESSMENT

One of the greatest risks to the jurisdiction's population is the inability to predict a dam failure due to it being uncontrollable by humans. DeKalb County and its participating jurisdictions have a total population of 749,323 that would be at risk for a dam failure in the planning area. It is important to note that no injuries or deaths have occurred in DeKalb County or its participating jurisdictions as a direct result of dam failure.

All of DeKalb County's population are susceptible to flood hazards. Low-income individuals are more vulnerable to flood hazards. Low-income individuals also experience greater difficulties in recovering from flood hazard impacts. According to U.S. Census Bureau data, 15.1% of DeKalb County's population live in poverty. This represents 113,148 people. The cities of Lithonia (38.9%), Clarkston (30.9%), and Doraville (22.8%) have the highest levels of poverty in DeKalb County. The DeKalb County 2021 Comprehensive Plan 5-Year Update notes that poverty rates have increased in certain sections of central and south DeKalb County (<https://www.dekalbcountyga.gov/planning-and-sustainability/2021-comprehensive-plan-5-year-update>).

Individuals with access and functional needs are more vulnerable to flood hazard impacts. This may include children, the elderly, they physically or mentally disabled, non-English speakers, the medically or chemically dependent, and the transportation disadvantaged ([https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook\\_03-2013.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf)). In DeKalb County, this includes the following:

- Individuals with a disability: 10.2% (75,923 people)
- Persons 65 years and over: 11.9% (89,507 people)
- Persons under 9 years: 13.5% (101,416 people)
- Speak English less than "very well" (age 5 years+): 8.7% (60,536 people)
- Households with no vehicles available: 8.6% (24,418 households)

The City of Stonecrest (11.4%) has the highest percentage of individuals with a disability. The City of Avondale Estates (23.4%) has the highest ratio of population aged 65 years or older. The City of Lithonia (22.3%), City of Clarkston (18.3%), and City of Decatur (18.2%) have the greatest percentage of people under 9 years. The City of Doraville (42.4%), City of Clarkston (40.9%), and City of Chamblee (28.7%) have the highest percentage of people who speak English less than "very well." The City of Lithonia (14.7%) and City of Clarkston (14.3%) have the highest ratio of households with no vehicle available.

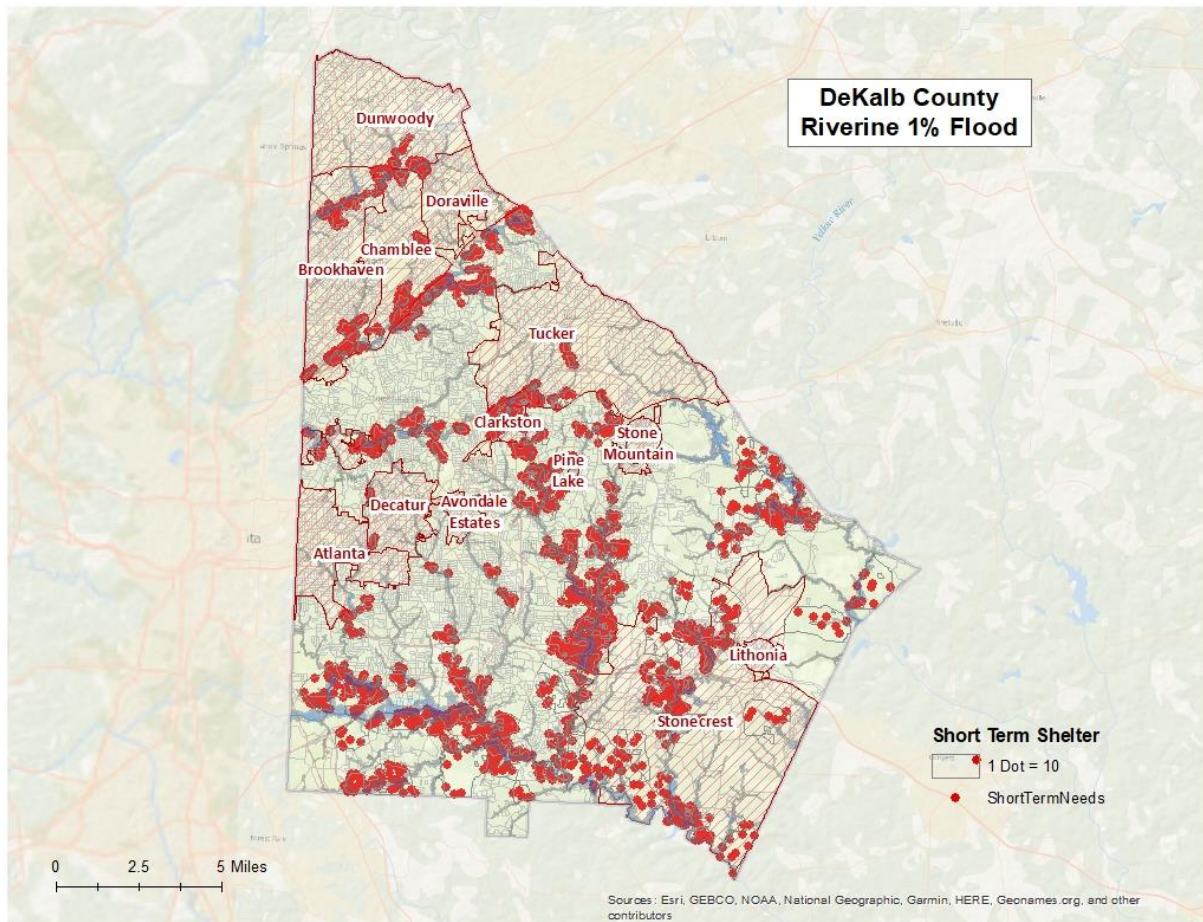
This data, retrieved from the American Community Survey and the DeKalb County 2021 Comprehensive Plan 5-Year Update, provides insight into certain characteristics of DeKalb County that are likely indicators of vulnerability. Based on this data, the greatest population vulnerabilities to flood hazards in DeKalb County are in the City of Clarkston, the City of Lithonia, and unincorporated areas of the county.

The Hazus-MH simulation considered the likely impacts of the DeKalb County 1% riverine flooding event. Hazus-MH estimated 13,994 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 41,982 individuals, of which 34,704 may require short term publicly provided shelter. The results are mapped below.



## SECTION 4: RISK ASSESSMENT

Map 40: DeKalb County Flood Risk Map



Map Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

### Vulnerability of the Economy

Building losses are broken into two categories: direct building and business interruption. Direct building losses are the estimated costs to repair or replace damage to the building and its contents. Business interruption losses are losses associated with the inability to operate a business because of the damage sustained during the flood. Business interruption losses also include the temporary living expenses for those people displaced from their homes because of the flood.

The leading industries in DeKalb County are Healthcare and Social Services (14.9% jobs), Retail Trade (10.9% of jobs), Accommodations and Food Services (7.2% of jobs), and Administrative and Support and Waste Management and Remediation Services (7.2% of jobs). Educational Services is another important industry in DeKalb County as it provides the fifth largest percentage of jobs (6.6%) and the highest average weekly wages of all industries (\$2105). The private sector provides 85.6% of employment, while the Federal, State, and local governments provide 14.4% of DeKalb County employment (<https://explorer.gdol.ga.gov/vosnet/mis/Profiles/Counties/DeKalb.pdf>). The largest employers in DeKalb County are, (1) Centers for Disease Control and Prevention (CDC); (2) Veterans Affairs Medical Center Atlanta; (3) Emory University Hospital; (4) Emory DeKalb Medical; (5) Children's Healthcare of Atlanta; (6)



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AT&T Mobility LLC; (7) State Farm Insurance Company/Atlanta Perimeter; (8) InterContinental Hotels Group Inc; (9) AirWatch LLC; and (10) Georgia Regional Hospital Atlanta (<https://www.dekalbchamber.org/why-dekalb/>).

All sectors of DeKalb County's economy are susceptible to the impacts of flood hazards. The loss of any of DeKalb County's leading industries could severely disrupt the community and its ability to recover from a disaster. Given the significance of the Healthcare industry in DeKalb County, a flood-related disaster impacting one of the community's hospitals would severely stress the capabilities of the community to respond to the medical needs of the community. The CDC, located in DeKalb County, is a Federal agency under the United States Department of Health and Human Services which works to protect America from health, safety and security threats, both foreign and in the United States (<https://www.cdc.gov/about/organization/mission.htm>). Its loss would not only affect DeKalb County's economy but would affect the entire nation.

### Vulnerability of the Built Environment

Buildings in DeKalb County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. The hypothetical 1% flooding event was simulated to impact DeKalb County and its participating jurisdictions using the Hazus-MH system. The simulated event generated damage to 4416 buildings in DeKalb County and its participating jurisdictions for a total of \$619,240,534 in damage.

The following tables provide a summary of the potential flood-related building damage in DeKalb County by jurisdiction that might be experienced from the 1% flood. The following maps shows the potential loss ratios of total building exposure to losses sustained to buildings from the 1% flood by 2010 census block and illustrates the relationship of building locations to the 1% flood inundation boundary.

Table 33: DeKalb County Riverine 1% Building Losses

OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
<b>ATLANTA</b>					
COMMERCIAL	291	9	\$268,698,650	\$1,791,840	0.67%
RELIGIOUS	33	1	\$26,063,010	\$47,676	0.18%
RESIDENTIAL	12,181	182	\$9,728,152,969	\$30,868,391	0.32%
<b>AVONDALE ESTATES</b>					
RESIDENTIAL	1,495	12	\$1,118,375,123	\$3,669,867	0.33%
COMMERCIAL	74	1	\$33,711,240	\$27,701	0.08%
<b>BROOKHAVEN</b>					
RESIDENTIAL	13,616	241	\$13,731,481,344	\$46,482,665	0.34%
COMMERCIAL	327	6	\$1,984,293,540	\$28,361,187	1.43%



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OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
INDUSTRIAL	19	2	\$32,860,630	\$920,356	2.80%
<b>CHAMBLEE</b>					
COMMERCIAL	685	7	\$1,020,323,120	\$1,253,667	0.12%
INDUSTRIAL	149	1	\$168,908,930	\$181,776	0.11%
RESIDENTIAL	5,726	118	\$3,592,454,771	\$14,851,744	0.41%
<b>CLARKSTON</b>					
RESIDENTIAL	1,160	15	\$364,225,849	\$516,595	0.14%
<b>DECATUR</b>					
COMMERCIAL	288	1	\$550,474,460	\$95,611	0.02%
INDUSTRIAL	15	1	\$3,801,220	\$120,631	3.17%
RESIDENTIAL	7,362	207	\$8,584,234,852	\$33,093,188	0.39%
<b>DORAVILLE</b>					
RESIDENTIAL	2,292	57	\$1,145,344,710	\$7,160,796	0.63%
COMMERCIAL	447	4	\$577,378,570	\$1,438,878	0.25%
INDUSTRIAL	97	2	\$172,759,740	\$496,380	0.29%
<b>DUNWOODY</b>					
RESIDENTIAL	12,607	42	\$10,478,841,349	\$5,619,995	0.05%
COMMERCIAL	400	2	\$2,254,785,560	\$13,026	0.00%
<b>PINE LAKE</b>					
RESIDENTIAL	343	10	\$153,868,426	\$920,951	0.60%
<b>STONE MOUNTAIN</b>					
RESIDENTIAL	1,978	29	\$571,337,319	\$1,906,618	0.33%
<b>STONECREST</b>					
COMMERCIAL	453	8	\$877,969,346	\$4,508,706	0.51%
INDUSTRIAL	120	1	\$231,795,755	\$515,005	0.24%
RESIDENTIAL	16,683	377	\$6,635,461,086	\$38,526,782	0.58%
<b>TUCKER</b>					





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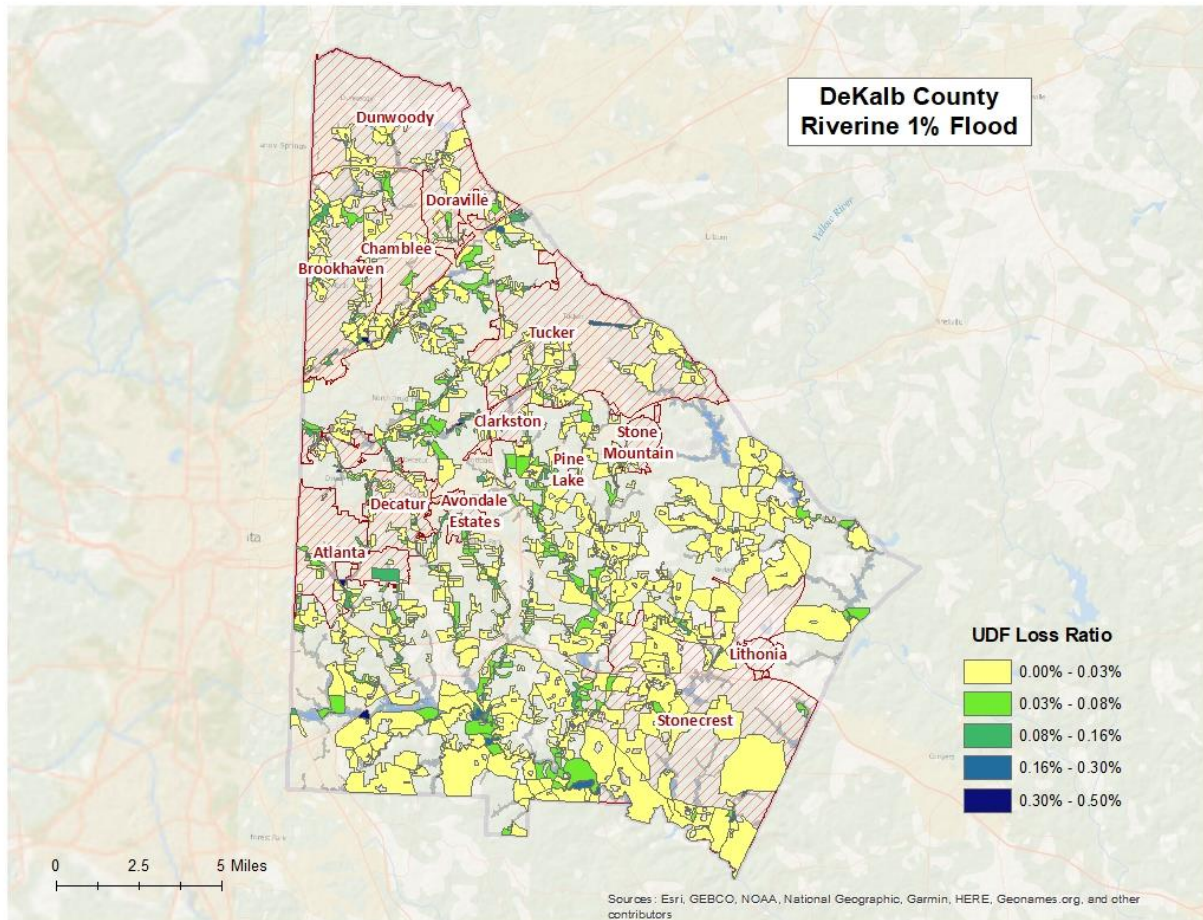
OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
INDUSTRIAL	216	3	\$523,171,040	\$269,764	0.05%
RESIDENTIAL	11,302	162	\$6,939,302,119	\$18,903,800	0.27%
COMMERCIAL	756	4	\$1,363,291,350	\$18,882,002	1.39%
<b>UNINCORPORATED</b>					
INDUSTRIAL	251	8	\$286,170,621	\$4,214,169	1.47%
RELIGIOUS	153	8	\$154,474,160	\$5,370,178	3.48%
COMMERCIAL	2,680	53	\$3,097,482,997	\$8,977,502	0.29%
RESIDENTIAL	126,579	2,842	\$61,044,179,900	\$339,233,087	0.56%
<b>COUNTY TOTAL</b>					
	220,778	4,416	\$137,697,673,756	\$619,240,534	

Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan



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Map 41: DeKalb County Potential Loss Ratio of Total Building Exposure to Losses Sustained to Buildings from the 1% Riverine Flood by 2010 Census Block

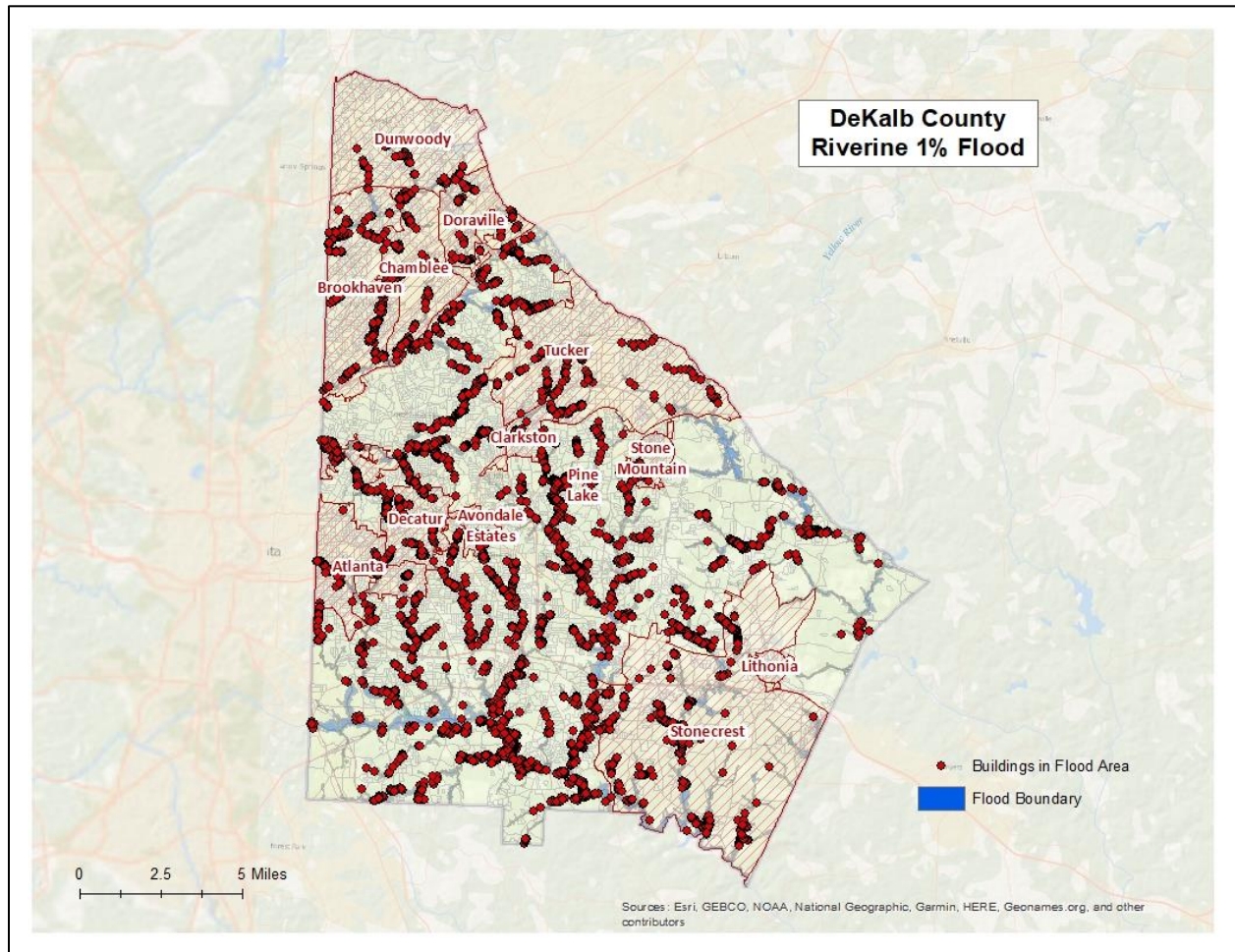


Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan



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Map 42: DeKalb County Damaged Buildings in Riverine Floodplain (1% Flood)



Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

An essential facility may encounter many of the same impacts as other buildings within the flood boundary. These impacts can include structural failure, extensive water damage to the facility and loss of facility functionality (e.g., a damaged police station will no longer be able to serve the community). The analysis identified one essential facility that was subject to damage in the DeKalb County riverine 1% probability floodplain.

Table 34: Riverine 1% Flood Damaged Essential Facilities

Name	Category	City
Fire Station 24	Fire Station	Stone Mountain

Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan

Hazus-MH estimated the amount of debris that would be generated by the hypothetical flood event. The model broke debris into three general categories:

- Finishes (dry wall, insulation, etc.)





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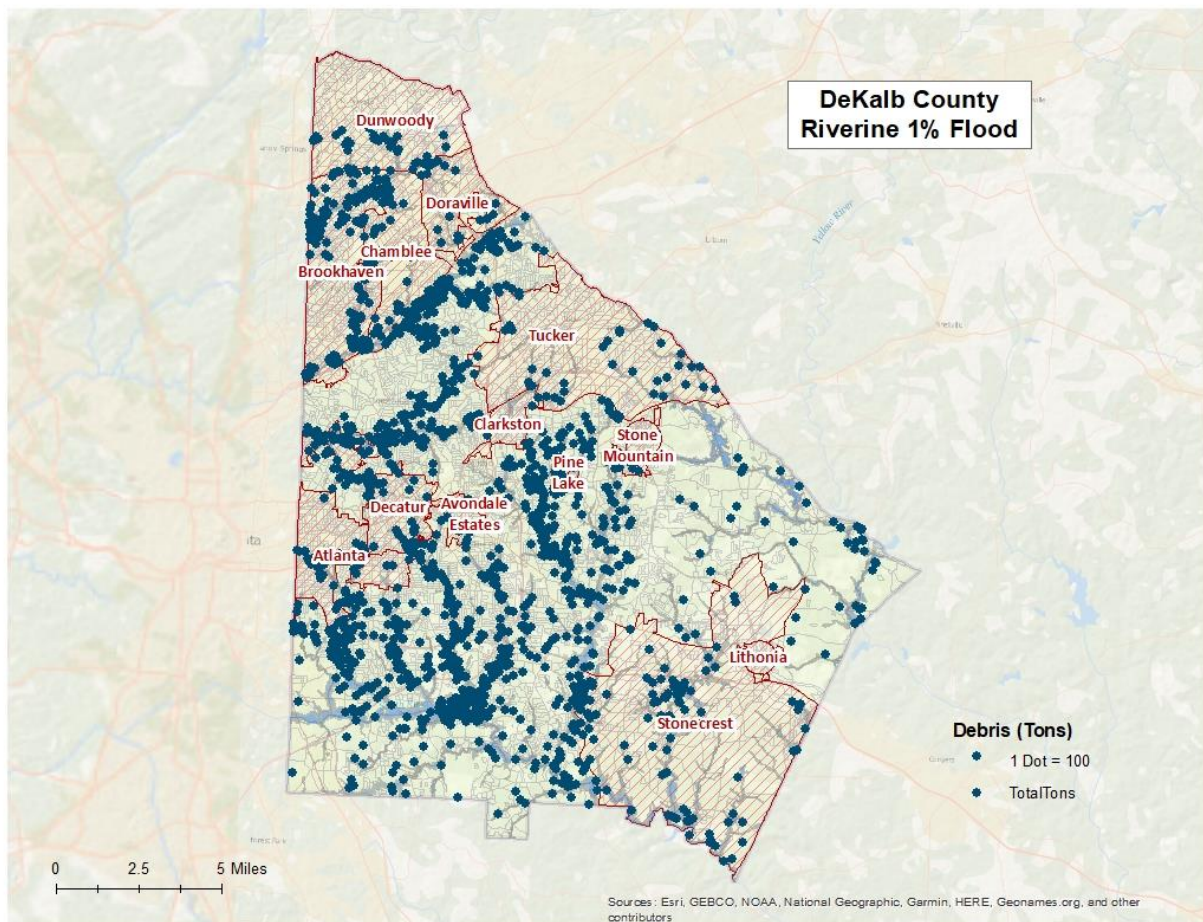
- Structural (wood, brick, etc.)
- Foundations (concrete slab, concrete block, rebar, etc.)

Debris definitions applied in Hazus-MH are unique to the Hazus-MH model and so do not necessarily conform to other definitions that may be employed in other models or guidelines.

The analysis estimates that an approximate total of 172,505 tons of debris might be generated:

1) Finishes- 58,632 tons; 2) Structural – 58,251 tons; and 3) Foundations- 55,622 tons. The results are mapped below.

*Map 43: Riverine 1% Flood Debris Weight (Tons)*

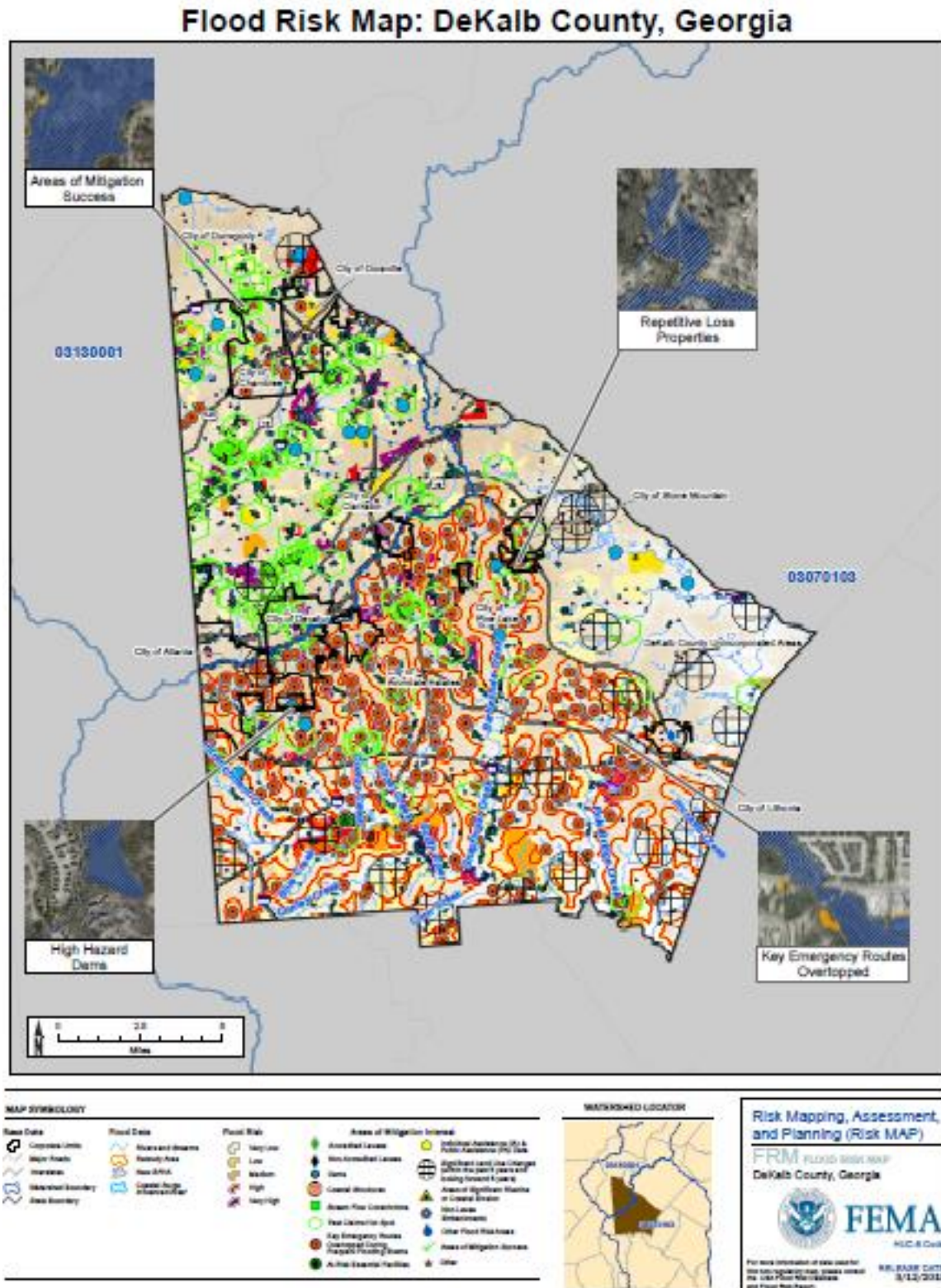


Source: Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan



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Map 44: DeKalb County Flood Risk Map



Map Source: FEMA Flood Risk Map Service Center



[illegible]

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*Map 46: DeKalb County, Riverine 100-yr Flood (has been requested)*

*Map Source: GEMA, Hazard Risk Analysis, Supplement to the DeKalb County Joint Hazard Mitigation plan*

*Map 47: DeKalb County Riverine 100-yr Flood Loss Ratio by 2010 Census Block (has been requested)*

*Map Source: GEMA, Hazard Risk Analysis, Supplement to the DeKalb County Joint Hazard Mitigation plan*

*Map 48: DeKalb County Riverine 100-yr Flood with Critical Facilities (has been requested)*

*Map Source: GEMA, Hazard Risk Analysis, Supplement to the DeKalb County Joint Hazard Mitigation plan*

*Map 49: DeKalb County Riverine 100-yr Flood, Short-Term Shelter Needs (has been requested)*

*Map Source: GEMA, Hazard Risk Analysis, Supplement to the DeKalb County Joint Hazard Mitigation plan*

*Map 50: DeKalb County Riverine 100-yr Flood, Debris Weight (Tons) (has been requested)*

*Map Source: GEMA, Hazard Risk Analysis, Supplement to the DeKalb County Joint Hazard Mitigation plan*

### **Vulnerability of Natural Environment**

The 2021 DeKalb County Comprehensive Plan – 5 Year Update lists two significant and unique geological features. Soapstone Ridge, located in the southwestern portion of the county, contains aboriginal steatite quarries which are of archeological and historic significance. Stone Mountain, located in the eastern area of the county, is the largest exposed granite outcropping in the world. The 2021 DeKalb County Comprehensive Plan – 5 Year Update also notes there are various Federally protected wetlands in the area, mostly in the flood prone areas of perennial creeks. These natural environmental resources are minimally vulnerable to flooding impacts.

#### **4.4.5 – Risk Analysis**

FEMA's NRI on provides estimates on riverine flooding risk, and not flash flooding. The NRI estimates that DeKalb County and the jurisdictions which lie within its boundaries have 24,440 people, \$188,645,903,590 worth of structures, and \$36,048 worth of agriculture exposed to riverine flood hazard impacts each year. The NRI projects annual losses of 0.54 people, \$926,049 worth of structures, and \$518 worth of agriculture to riverine flooding hazard impacts each year. HAZUS® estimates individuals would be displaced due to flooding and the potential for evacuation and may require short-term publicly provided shelter. This



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information is from the Hazard Risk Analysis provided by the University of Georgia, Carl Vinson Institute of Government.

Table 35: Risk Analysis of Community Lifeline Systems to Floods, DeKalb County

Risk Analysis of Community Lifeline Systems to Floods, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Search and Rescue	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Government Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage critical facilities and historical sites</li><li>• disrupt power and communications to emergency operations centers</li><li>• disrupt essential government functions</li><li>• cause short-term or long-term school cancellations.</li></ul>



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Risk Analysis of Community Lifeline Systems to Floods, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
	Community Safety	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or overtop flood control systems</li> <li>• create secondary hazards</li> </ul>
<b>Food, Water, Shelter</b>	Food	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• disrupt commercial food distribution and supply chains</li> <li>• affect commercial and home perishable food supplies</li> </ul>
	Water	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate secondary hazards which can contaminate drinking water systems</li> <li>• damage wastewater systems</li> </ul>
	Shelter	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage homes</li> <li>• damage shelters</li> <li>• damage lodging facilities</li> </ul>
	Agriculture	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• injure livestock</li> <li>• damage crops</li> <li>• damage farm structures and equipment</li> </ul>
<b>Health and Medical</b>	Medical Care	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage hospitals, pharmacies, long-term care facilities, and veterinary clinics</li> <li>• disrupt power and communications</li> <li>• contaminate water supply, affecting the provision of care</li> <li>• expend resources</li> </ul>
	Patient Movement	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• injure personnel</li> </ul>



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Risk Analysis of Community Lifeline Systems to Floods, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>• damage facilities and equipment</li> <li>• disrupt responder communications</li> <li>• damage or block transportation routes</li> <li>• expend resources</li> </ul>
	Public Health	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage facilities</li> <li>• disrupt power and communications</li> <li>• expend resources</li> </ul>
	Fatality Management	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• expend resources</li> <li>• damage facilities and equipment</li> <li>• disrupt power and communications</li> </ul>
	Medical Supply Chain	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li> <li>• damage or block transportation routes</li> </ul>
Energy	Power (Grid)	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage generation systems</li> <li>• damage transmission systems</li> <li>• damage distribution systems</li> </ul>
	Fuel	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage fuel storage resources</li> <li>• damage pipelines</li> <li>• damage fuel distribution locations</li> </ul>
Communications	Infrastructure	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or cause wireless systems to become overburdened</li> </ul>





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Risk Analysis of Community Lifeline Systems to Floods, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>• damage cable and wireline systems</li> <li>• damage or disrupt broadcast and satellite systems</li> <li>• damage or cause internet systems to become overburdened</li> </ul>
	Alerts, Warnings, and Messages	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage physical warning systems</li> <li>• disrupt the delivery of emergency alerts and warnings</li> </ul>
	911 and Dispatch	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage public safety answering points or dispatch centers</li> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Responder Communications	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Finance	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage banking facilities and equipment</li> <li>• disrupt communications</li> </ul>
Transportation	Highway/Roadway	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or block roads and bridges</li> </ul>
	Mass Transit	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage buses or trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Railway	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage freight or passenger trains</li> <li>• damage or block transportation routes</li> </ul>



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Risk Analysis of Community Lifeline Systems to Floods, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>delay routes</li> </ul>
	Aviation	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage airports</li> <li>damage aircraft</li> <li>delay routes</li> </ul>
	Maritime	<b>No Risk.</b>
<b>Hazardous Materials</b>	Facilities	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>generate oil/hazardous materials/toxic incidents from fixed facilities</li> <li>damage facilities</li> <li>disrupt power supply to facilities</li> </ul>
	Hazmat, Pollutants, Contaminants	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>generate oil/hazardous materials/toxic incidents from non-fixed facilities, rail, and roadways</li> </ul>



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### 4.4.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL1	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (children, elderly, disability, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In DeKalb County and the jurisdictions that lie within its boundaries: <ul style="list-style-type: none"><li>• 14% of the population is ≤9 years old</li><li>• 12% of the population is ≥65 years old</li><li>• 10% of the population has a disability</li><li>• 9% of the population speak English less than “very well”</li><li>• 8.6% of households have no vehicle available</li></ul>	Over 25% of the population in DeKalb County and the jurisdictions that lie within its boundaries are vulnerable to extreme heat impacts.
FL2	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Avondale Estates: <ul style="list-style-type: none"><li>• 11% of the population is ≤9 years old</li><li>• 23% of the population is ≥65 years old</li><li>• 9% of the population has a disability</li><li>• 2% of the population speak English less than “very well”</li><li>• 3% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Avondale Estates are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL3	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Brookhaven: <ul style="list-style-type: none"> <li>15% of the population is ≤9 years old</li> <li>10% of the population is ≥65 years old</li> <li>6% of the population has a disability</li> <li>17% of the population speak English less than very well</li> <li>7% of households no vehicle available</li> </ul>	Over 25% of the population in the City of Brookhaven are vulnerable to extreme heat impacts.
FL4	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Chamblee: <ul style="list-style-type: none"> <li>15% of the population is ≤9 years old</li> <li>8% of the population is ≥65 years old</li> <li>7% of the population has a disability</li> <li>29% of the population speak English less than “very well”</li> <li>9% of households have no vehicle available</li> </ul>	Over 30% of the population in the City of Chamblee are vulnerable to extreme heat impacts.
FL5	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Clarkston: <ul style="list-style-type: none"> <li>18% of the population is ≤9 years old</li> <li>4% of the population is ≥65 years old</li> <li>8% of the population has a disability</li> <li>41% of the population speak English less than “very well”</li> <li>14% of households have no vehicle available</li> </ul>	Over 40% of the population in the City of Clarkston are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL6	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Decatur: <ul style="list-style-type: none"><li>• 18% of the population is ≤9 years old</li><li>• 12% of the population is ≥65 years old</li><li>• 8% of the population has a disability</li><li>• 3% of the population speak English less than “very well”</li><li>• 13% of household have no vehicle available</li></ul>	Over 30% of the population in the City of Decatur are vulnerable to extreme heat impacts.
FL7	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Doraville: <ul style="list-style-type: none"><li>• 15% of the population is ≤9 years old</li><li>• 8% of the population is ≥65 years old</li><li>• 5% of the population has a disability</li><li>• 42% of the population speak English less than “very well”</li><li>• 9% of households have no vehicle available</li></ul>	Over 40% of the population in the City of Doraville are vulnerable to extreme heat impacts.





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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL8	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Dunwoody: <ul style="list-style-type: none"><li>• 16% of the population is ≤9 years old</li><li>• 14% of the population is ≥65 years old</li><li>• 7% of the population has a disability</li><li>• 8% of the population speak English less than “very well”</li><li>• 5% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Dunwoody are vulnerable to extreme heat impacts.
FL9	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Lithonia: <ul style="list-style-type: none"><li>• 22% of the population is ≤9 years old</li><li>• 7% of the population is ≥65 years old</li><li>• 9% of the population has a disability</li><li>• 4% of the population speak English less than “very well”</li><li>• 15% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Lithonia are vulnerable to extreme heat impacts.
FL10	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Pine Lake: <ul style="list-style-type: none"><li>• 17% of the population is ≥65 years old</li><li>• 6% of the population has a disability</li><li>• 1% of the population speak English less than “very well”</li><li>• 2% of households have no vehicle available</li></ul>	Over 15% of the population in the City of Pine Lake are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL11	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Stone Mountain: <ul style="list-style-type: none"><li>• 10% of the population is ≤9 years old</li><li>• 9% of the population is ≥65 years old</li><li>• 11% of the population has a disability</li><li>• 6% of the population speak English less than “very well”</li><li>• 10% of households have no vehicle available</li></ul>	Over 20% of the population in the City of Stone Mountain are vulnerable to extreme heat impacts.
FL12	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Stonecrest: <ul style="list-style-type: none"><li>• 15% of the population is ≤9 years old</li><li>• 8% of the population is ≥65 years old</li><li>• 11% of the population has a disability</li><li>• 1% of the population speak English less than “very well”</li><li>• 10% of households have no vehicle available</li></ul>	Over 20% of the population in the City of Stonecrest are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL13	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Tucker: <ul style="list-style-type: none"> <li>• 12% of the population is ≤9 years old</li> <li>• 15% of the population is ≥65 years old</li> <li>• 10% of the population has a disability</li> <li>• 13% of the population speak English less than “very well”</li> <li>• 6% of the population have no vehicle available</li> </ul>	Over 25% of the population in the City of Tucker are vulnerable to extreme heat impacts.
FL14	<b>Flooding and people/built environment</b> Nancy Creek has experienced significant flooding six times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from Nancy Creek.	People and structures along Warrenhall Lane, Durret Way are regularly affected by flooding from Nancy Creek.
FL 15	<b>Flooding and people/built environment</b> Peachtree Creek has experienced significant flooding six times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from Peachtree Creek.	People and structures along Hanover West Drive, Clairmont Road, and Buford Road are regularly affected by flooding from Peachtree Creek.
FL16	<b>Flooding and people/built environment</b> North Fork Peachtree Creek has experienced significant flooding five times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from North Fork Peachtree Creek.	People and structures along Bamby Lane, Cove Circle, Victory Drive, Dunwoody Place, Converse Drive are regularly affected by flooding from North Fork Peachtree Creek.
FL17	<b>Flooding and people/built environment</b> South Fork Peachtree Creek has experienced significant flooding five times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from South Fork Peachtree Creek.	People and structures along Lansbury Village Drive, Orion Drive, Lawrenceville Highway, Noble Drive, Helen Drive, and Kay Lane are regularly affected by flooding from Peachtree Creek.



Photo Source: istockphoto.com

### 4.5(SWW) – Severe Winter Weather

#### 4.5.1 – Hazard Description

Severe winter weather includes ice storms, heavy or prolonged snow, sleet, and extreme temperatures. Severe winter weather can be increasingly hazardous in areas and regions that only experience it intermittently. This plan defines severe winter weather as a combination of the following events as defined by NOAA.

**Cold Wave/Extreme Cold:** A cold wave is a weather phenomenon that is distinguished by a cooling of the air. Specifically, as described by NWS, a cold wave is a rapid fall in temperature within a 24-hour period requiring substantially increased protection to agriculture, industry, commerce, and social activities. As evidenced by past events across the U.S., extreme cold can cause impact to human life and property.

**Ice Storm:** An ice storm is used to describe occasions when damaging accumulations of ice are expected during freezing rain situations. Significant accumulations of ice pull down trees and utility lines resulting in loss of power and communication. These accumulations of ice make walking and driving extremely dangerous. Significant ice accumulations are usually accumulations of ¼" or greater.

**Heavy Snow:** This generally means snowfall accumulating to 4 inches or more in depth in 12 hours or less; or snowfall accumulating to 6 inches or more in depth in 24 hours or less. In forecasts, snowfall amounts are expressed as a range of values, e.g., "8 to 12 inches." However, in heavy snow situations where there is considerable uncertainty concerning the range of values, more appropriate phrases are used, such as "...up to 12 inches..." or alternatively "...8 inches or more." A blizzard, on the other hand, is a storm with "considerable falling or blowing snow" and winds in excess of 35 mph and visibilities of less than 1/4 mile for at least three hours.

**Winter Storm:** A winter storm comes in the form of heavy snow, heavy freezing rain, or heavy sleet. Such hazardous storms may also include extremely low temperatures and increased wind.

Interestingly, NWS refers to winter storms as "deceptive killers." People are at greater risk to dangerous injuries, including frostbite and hypothermia due to the wind and cold. Most deaths caused by winter storms



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are from vehicle accidents due to ice and snow. Heart attacks brought on by overexertion from shoveling or clearing snow also increase during and after storms.

Aside from the inherent dangers of severe winter weather, rising temperatures and the melting of ice and snow can cause fast surface water runoff and potentially flash flooding.

Fortunately, significant winter storms form well in advance and can, therefore, be anticipated by weather experts. However, like other large storm fronts, the severity of winter storms is not as easily predicted. Snow and ice accumulations, as well as wind speed, will inevitably vary by location.

### 4.5.2 – Location & Extent

Severe winter weather can occur anywhere in DeKalb County. While not as common as severe thunderstorms, snow and ice can impact the area given the right ingredients. First, cold air must be in place. This usually occurs a few times in the winter months when the polar jet stream moves southward into the eastern United States. Second, moisture is necessary for the formation of precipitation. When the subtropical jet stream moves across the southern portion of the United States, it allows disturbances to track across the area, which provides atmospheric lift. Given these ingredients, snow, sleet, and/or freezing rain can form (<https://weather.com/storms/winter/news/what-to-know-about-snow-and-ice-in-south>).

Dangerously cold temperatures can also occur in DeKalb County. In extreme cases, temperatures have dropped below 0°F in the area. These extreme cold weather events often occur in conjunction with snowfall.

Table 36: Record Low Temperatures, Atlanta Area

Record Low Temperatures, Atlanta Area	
Date	Temperature
February 13, 1899	-9°F
January 21, 1985	-8°F
January 20, 1985	-6°F
January 11, 1982	-5°F
January 30, 1966	-3°F
January 24, 1963	-3°F

Data Source: National Weather Service, Peachtree City, GA  
(<https://www.weather.gov/wrh/Climate?wfo=ffc>)

NOAA's National Centers for Environmental Information (NCEI) is now producing the Regional Snowfall Index (RSI) for significant snowstorms that impact the eastern two thirds of the U.S. The RSI ranks snowstorm impacts on a scale from 1 to 5, like the Fujita scale for tornadoes or the Saffir-Simpson scale for hurricanes. The RSI differs from these other indices because it includes population. RSI is based on the spatial extent of the storm, the amount of snowfall, and the juxtaposition of these elements with population. The RSI is important because of the need to place snowstorms and their societal impacts into a historical perspective on a regional scale. For example, in February 1973, a major snowstorm hit the Southeast affecting areas not prone to snow. The storm stretched from the Louisiana and Mississippi Gulf coasts northeastward to the Carolinas. Over 11 million people received more than 5" of snow and three quarters of a million people in Georgia and South Carolina experienced over 15" of snow. This is currently the 10th highest ranked storm for the Southeast region. This storm would not even be ranked in NESIS. This example illustrates why it is important to discriminate impacts between regions. It is important to note that currently, the RSI does not consider the impacts of ice accumulations.





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Table 37: Regional Snowfall Index

Regional Snowfall Index		
Category	RSI Value	Description
1	1–3	Notable
2	3–6	Significant
3	6–10	Major
4	10–18	Crippling
5	18.0+	Extreme

Data Source: NOAA/NCEI (<https://www.ncdc.noaa.gov/snow-and-ice/rsi/>)

### 4.5.3 – Previous Occurrences

#### Severe Winter Weather Events

Between 1996 and 2020, severe winter weather events have impacted DeKalb County and the incorporated communities within its boundaries 47 times. This includes events labeled in the NCDC database as Cold/Wind Chill, Extreme Cold/Wind Chill, Frost/Freeze, Heavy Snow, Ice Storm, Sleet, Winter Storm, and Winter Weather. The NCDC lists no severe winter weather events in DeKalb County prior to 1996. Therefore, this plan will only evaluate the period between 1996-2020. These events caused no deaths, no injuries, and approximately \$1.533 million in property damage. Between January 1, 2016, and December 31, 2020, severe winter weather events have impacted DeKalb County and the incorporated communities within its boundaries six times. These events caused no death, no injuries, and no recorded property damage.

Table 38: Severe Winter Weather Events (1996-2020)

Severe Winter Weather Events (1996-2020)					
Decade	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
1990s	4	0	0	\$0	\$0
2000s	27	0	0	\$1.533M	\$0
2010s	15	0	0	\$0	\$0
2020	1	0	0	\$0	\$0
<b>Total</b>	<b>47</b>	<b>0</b>	<b>0</b>	<b>\$1.533M</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database



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Table 39: Severe Winter Weather Events (2016-2020)

Severe Winter Weather Events (2016-2020)					
Year	No. of Events	Deaths	Injuries	Property Damage	Crop Damage
2016	2	0	0	\$0	\$0
2017	2	0	0	\$0	\$0
2018	1	0	0	\$0	\$0
2019	0	0	0	\$0	\$0
2020	1	0	0	\$0	\$0
<b>Total</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
<b>Average</b>	<b>1.2</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

Data Source: NOAA/NCEI Storm Events Database

**January 22, 2000, Ice Storm (RSI 0.83).** Wintry precipitation plagued the northern third of Georgia beginning Saturday and continued into Sunday. A shallow cold airmass with single-digit dewpoint temperatures was in place over north Georgia, with temperatures in the upper 20s to lower 30s over much of the area. An upper-level disturbance moved rapidly over the area in a fast zonal flow, bringing an increase in mid-tropospheric moisture. At the same time, lower-level moisture spread into the area from the Gulf of Mexico. Precipitation began falling into the colder layer of air near the surface by mid-morning on the 22nd. The mixture of light rain, snow and sleet had spread from northwest to northeast Georgia by early afternoon. By noon, reports began coming in of icy spots on bridges and some roadways. By late afternoon, the precipitation north of a line from Rome to Gainesville to Commerce became a mixture of freezing rain, sleet and snow. Up to 3 inches of snow fell in the mountains of northeast Georgia by the end of the event. Rain mixed with sleet fell over much of the rest of north Georgia into the late afternoon. As the event continued into Saturday night, freezing rain and sleet began falling further south in the Atlanta to Athens areas. Ice accumulated to around a half inch on tree limbs and power lines. There was ice and snow accumulation on roads as well, mainly north of an Atlanta to Athens line. Bridges and overpasses became treacherous for travelers and numerous accidents were reported. A ten-year-old Rockdale County girl was injured when an large ice-laden limb fell and hit her in the head, causing spinal damage. The major problem was power outages. Power lines snapped, and trees and limbs fell onto power lines breaking them. Trees and debris blocked roads in many areas. As many as 500,000 customers lost power across north Georgia. About 3,000 Georgia power workers worked around the clock to restore power, but 50,000 to 75,000 customers were still without electricity Tuesday morning. A few areas did not regain electric power until Wednesday. As many as 40,000 telephone customers also lost service due to lines downed by limbs and trees. Around 3,000 phones customers in the Atlanta metro area alone were without service Sunday. Trees heavy with ice fell on homes and cars causing other damage. Hartsfield International Airport was open Sunday, but many flights were cancelled or had long delays in the morning. Precipitation slowly diminished from west to east across north Georgia during the morning and early afternoon on Sunday January 23rd. Luckily the storm occurred on the weekend, but some school systems still were closed Monday. The governor of Georgia declared a state of emergency for 39 counties. A Federal Disaster Declaration covered 34 Georgia counties. Georgia Emergency Management estimated 48 million dollars in damage. The devastation from the storm was compared to Hurricane Opal in 1995 and the blizzard of 1993. This event caused no deaths or injuries, and approximately \$980,000 in property damage. It is the costliest severe winter weather event since 1996.



**January 28-30, 2000, Ice Storm (RSI 1.38):** A series of short waves in the upper air pattern produced periods of mostly light to occasionally moderate precipitation over the north half of Georgia from Friday morning to Sunday afternoon. Patchy light snow began in west central and northwest Georgia around daybreak on the 28th. There was a light dusting on the ground by mid-morning from Troup to Carroll County, east to Fayette County. Due to the dry layer of air aloft, much of the precipitation evaporated before reaching the ground, so eastward progression of the area of snow was slow. By evening, a mixture of light snow, sleet and freezing rain became more widespread over west central and northwest Georgia. Although the precipitation remained light and temperatures hovered in the low to mid 30s, ice began to accumulate on roads, bridges and overpasses. There was a 47-car pile-up on I-20 in downtown Atlanta late Friday night that backed up traffic into early Saturday morning. By Saturday morning, the 29th, temperatures had slowly fallen to near or just below the freezing mark over the north half of Georgia with a mix of light freezing drizzle, freezing rain, and sleet, with light snow in the mountains. The last batch of significant precipitation moved from Alabama into west central Georgia and on into the Atlanta metro area on Sunday morning. There were even one or two claps of thunder in Spalding County. Overall, the event generally produced 1/4 to 1/2 inch of ice accumulation, with isolated areas getting 1/2 to 1 inch of ice. The main problems seemed to be traffic accidents due to icy roads and bridges. There were scattered areas of trees and power lines down, but damage from this storm was nowhere as much as that from the storm the previous weekend. This event cause approximately \$32,790 in property damage.

**January 28-30, 2005, Winter Storm (RSI 0.00):** A significant and prolonged winter storm/ice storm affected nearly all North and Central Georgia from the evening of Friday January 28th to late morning on Sunday January 30th. The winter storm was a result of a very strong and very cold Arctic surface high pressure system located across the Mid-Atlantic states and an upper-level disturbance moving across the region from the west. North of a line from La Grange to Thomaston, to Sandersville, the precipitation fell mostly as a mixture of sleet and freezing rain, with typical accumulations of one-half inch glaze ice and one to two inches of sleet. Some areas in North Central and Northeast Georgia experienced significant glaze ice accumulations of three-fourths to one inch. Further south, mainly south of a La Grange, to Thomaston, to Sandersville line, most of the frozen precipitation fell as freezing rain, with 1/4-to-1/2-inch accumulations of glaze ice common as far south as McRae, Abbeville, and Americus. In the southern areas, however, the ice accumulations were generally confined to trees, power lines, and other exposed objects with little or no accumulation of ice on the ground. Extensive damage to trees and power lines were reported throughout the area, especially in North Central, Northeast, and Central Georgia. Damage estimates were in the millions. Numerous vehicle accidents were also reported on the slick ice and sleet covered roads, especially in the Atlanta Metropolitan area. The summary below provides ice and sleet accumulations by county for this event as well as damage information received for that county. The ice and sleet accumulations were largely provided by the county 911 centers or respective Emergency Management Directors. The damage information was provided by the local county/city newspaper. In DeKalb County, 1/4 inch of glaze ice and 1.5 inches of sleet accumulated on the ground and infrastructure. Hundreds of trees fell on power lines and in roadways. Several thousand people were left without power for one to two days. This event caused no deaths or injuries, and approximately \$500,000 in property damage.

**December 15, 2005, Ice Storm (RSI 0.00):** A low pressure system moving out of the Gulf of Mexico and a strong upper-level trough pushed an area of rain across Georgia late on the 14th and early on the 15th. Meanwhile, a wedge of cold, dry air had slid down the east side of the Appalachians into north central and northeast Georgia. As the rain overspread the wedge of cold air, temperatures dropped to near or just below the freezing mark. Rainfall amounts across north and northeast Georgia averaged in the 0.50-to-0.80-inch range, resulting in substantial and damaging accumulations of ice. Ice accumulations on trees, power lines, and other elevated objects were mostly in the 0.25-to-0.33-inch range in an area bounded by Helen, Dahlonega, Ellijay, northeast Atlanta, Covington, and Athens. However, ice accumulations up to 0.50 inch were reported across Gwinnett, Hall, and White counties resulting in a number of downed trees and power lines. Only minor ice accumulations were reported immediately west and south of this area in the western and southern suburbs of Atlanta. Warm ground temperatures prevented significant ice



accumulations on roads, although some minor ice accumulation was reported on the roads across Banks, Gwinnett, Hall, and White counties. Approximately 220,000 residents, mostly in northeast Georgia, were left without power during the morning hours. The power outages also left traffic signals out of service in many of these areas, resulting in several traffic backups. Nearly 100,000 were still without power in the late afternoon. Several roads were also blocked from downed trees, especially across Hall, White, and Gwinnett counties. In DeKalb County, 0.25 inches of ice accumulated on infrastructure causing numerous power outages. This event caused no deaths or injuries, and approximately \$10,000 in property damage.

**March 1, 2009, Heavy Snow Event (RSI 3.423):** A vigorous closed upper-level low, with very cold temperatures aloft, continued to intensify as it moved rapidly southeast from the Midwest into the southeast U.S. from the evening of February 28th into the afternoon of March 1st. At the same time, a polar air mass (marked by a 1040+ mb surface high) was spreading southeast from the central Canadian provinces into the eastern half of the U.S. The combination of these events brought a rare late season heavy snowstorm to parts of north and central Georgia. Rain early in the morning changed to moderate to heavy snow just before noon on the 1st and spread from west to east across west central, north central, central, east central, and northeast Georgia. Even some thunderstorms and cloud-to-ground lightning strikes were observed during the height of the storm from late morning through mid-afternoon across north central, west central, northeast, and central Georgia. Measurable snowfall was confined to an area generally south of a Buchanan, to Canton, to Gainesville line and north of a Lumpkin, to Americus, to Warner Robins, to Gibson line. Snowfall averaged two to three inches within most of the snow area, but pockets of five to six inches of snow were recorded across parts of west central Georgia from the north side of Columbus, through Pine Mountain and into Troup and Meriwether County. The heaviest snow fell in northeast and parts of east central Georgia where a deformation zone developed on the back side of the departing upper low during the early evening. Snowfall from Lawrenceville, to Athens, to Danielsville averaged six to seven inches. The water content of the snow was high, which resulted in extensive downed trees, power lines, and telephone cables in areas that saw three or more inches of snow. Widespread power outages to thousands of people were observed in the Clarke, Morgan, Oconee, Jackson, and Madison County areas of northeast Georgia. Many residents in this part of the state were left without power for two to three days. The maximum snowfall ranged from 1.5 inches in the northern part of the county to 2.5 inches in the southern part. Some trees and power lines were down from the weight of the heavy, wet snow. This event caused no deaths or injuries, and approximately \$5,000 in property damage.

**January 21-22, 2016, Winter Weather Event (RSI 12.616):** Very cold air was entrenched across the southeastern states as a deep surface low developed in the lower Mississippi Valley and swept northeast across the southern Appalachians. A wintry mix of some freezing rain and sleet, but mostly snow, covered north Georgia with snow flurries extending as far south as central Georgia. Strong pressure gradient winds associated with this low-pressure system produced northwest winds 20 to 25 MPH with gusts of 30 to 40 MPH across north and central Georgia during the day on the 23rd. A CoCoRaHS observer reported .8 inches of snow southeast of Decatur and a report of .5 inches of snow in North Decatur was received on social media. The COOP observer north northeast of Doraville reported .1 inches of snow and a National Weather Service employee in East Lake Highlands reported a trace of snow. This event caused no deaths, injuries, or property damage.

**February 9-10, 2016, Winter Weather Event (RSI 0.00):** A strong and deep upper-level trough remained anchored across the eastern half of the country resulting in an extended period of very cold temperatures and scattered light to occasionally moderate snow showers across northern Georgia from late in the evening on Monday, February 8th through early in the morning on Friday, February 12th. Most areas saw only trace amounts of snow accumulation, however 1 to 2 inches of snow accumulated across the higher elevations of the North Georgia mountains. A COOP observer northeast of Doraville reported a trace of snow. This event caused no deaths, injuries, or property damage.

**January 6-7, 2017, Winter Storm (3.50):** During the afternoon of January 6th through the morning of January 7th a fast moving but strong storm system swept across the southeastern U.S. A cold airmass



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across north and central Georgia combined with rich moisture drawn north from the Gulf of Mexico to produce a mixture of rain, sleet, freezing rain and snow across north and portions of central Georgia. Several reports of a quarter on an inch of freezing rain were received from the public in the Decatur, Northwoods, and Emory areas, including .24 inches from the ASOS at DeKalb-Peachtree Airport, KPDK. Several CoCoRaHS reports of a quarter of an inch or less of snow were received from the Tucker and Decatur areas. This event caused no deaths, injuries, or property damage.

**December 8-9, 2017, Winter Storm (RSI 3.07):** With cold air in place across the southeastern U.S., a deep upper-level trough and associated surface low brought an extended period of moderate to heavy snow across parts of north Georgia beginning the morning of December 8th and continuing through the early morning of December 9th. The snowfall spread south and east overnight on the 8th into the morning of the 9th bringing light to moderate snowfall amounts to the remainder of north Georgia and portions of central Georgia. From the Atlanta metropolitan area northward and westward, many roads became impassable for several hours to over 2 days. Numerous trees and power lines were damaged or downed by the weight of the heavy, wet snow with many customers without electricity for hours if not days. Between 1 and 6 inches of snow were estimated across the county. Reports from CoCoRaHS observers included 1.5 to 5.5 inches in Decatur and 3.5 to 5.5 inches in Tucker as well as 3.5 inches in Dunwoody and 4 inches along the Fulton County line in east Atlanta. This event resulted in no deaths, injuries, or property damage.

**January 16-17, 2018, Winter Storm (RSI 0.00):** A strong surface low and cold front associated with a large and deep upper-level trough, brought light to moderate snow to much of north and central Georgia from the afternoon of the January 16th through the morning of January 17th. With most of the precipitation post-frontal, temperatures were well below freezing (lower to mid-20s) as the snow occurred. This resulted in widespread icy and snow-packed roadways across the area, especially those that were not pre-treated by GDOT or Public Works. Reports were received from a National Weather Service employee, CoCoRaHS observers and over social media of one to two inches of snow accumulation across the area. This event caused no deaths, injuries, or damage.

**February 8, 2020, Winter Weather Event (RSI 0.00):** A fast-moving mid-level short wave swept through the region during the morning and early afternoon. With a cold airmass in place over north Georgia and ample mid-level moisture, moderate to heavy snow quickly accumulated across a large portion of north Georgia. CoCoRaHS observers reported .5 inches of snow 1 mile southeast of Decatur, 3 miles north-northeast of North Decatur and 1 mile north-northwest of Tucker. This event caused no deaths, injuries, or property damage.

### 4.5.3A – Probability of Future Events

Table 40: Probability of Future Events, Severe Winter Weather

Probability of Future Events, Severe Winter Weather	
Decade	Number of Events
1990s	4
2000s	27
2010s	15
2020	1
Total	47
Years	70
Average	0.67
Likelihood of a Severe Winter Weather Event Each Year = 67%	





*Data Source: NOAA/NCEI Storm Events Database*

Based on this data, it is **highly likely** a severe winter weather event will occur every year in DeKalb County and the incorporated jurisdictions within its boundaries.

### 4.5.4 – Vulnerability of Community Assets

#### Vulnerability of People

All of DeKalb County's population are at risk for severe winter weather hazard impacts. Individuals with no access to a heating source are much more vulnerable to the dangers of extremely cold temperatures. According to the American Community Survey, 0.2% (584 people) of DeKalb County's population have no access to home heating fuel. The highest percentage of people experiencing this issue is in the City of Lithonia, where 1.4% (13 people) of the population have no access to home heating fuel. The highest number of people is in the City of Decatur, where 44 people have no access to home heating fuel. Another consideration is the loss of electricity as the source of home heating fuel. 37.5% (105,902 people) of DeKalb County's population use electricity as their source of for home heating fuel. A long-term power outage combined with extreme cold temperature could expose many individuals to extreme cold temperatures. In addition, carbon monoxide exposure and poisonings occur more often during the fall and winter when people are more likely to use gas furnaces and heaters. The CDC finds that approximately 480 U.S. residents die each year from non-fire-related carbon monoxide poisoning, and an estimated 15,200 people in the U.S. are treated each year for carbon monoxide poisoning or exposure.

Like other hazards, low-income individuals and individuals with functional and access needs are more vulnerable to severe winter weather hazard impacts. In DeKalb County, this includes the following:

- Individuals living in poverty: 15.1% (113,148 people)
- Individuals with a disability: 10.2% (75,923 people)
- Persons 65 years and over: 11.9% (89,507 people)
- Persons under 9 years: 13.5% (101,416 people)
- Speak English less than "very well" (age 5 years+): 8.7% (60,536 people)
- Households with no vehicles available: 8.6% (24,418 households)

The cities of Lithonia (38.9%), Clarkston (30.9%), and Doraville (22.8%) have the highest levels of poverty in DeKalb County. The DeKalb County 2021 Comprehensive Plan 5-Year Update notes that poverty rates have increased in certain sections of central and south DeKalb County). The City of Stonecrest (11.4%) has the highest percentage of individuals with a disability. The City of Avondale Estates (23.4%) has the highest ratio of population aged 65 years or older. The City of Lithonia (22.3%), City of Clarkston (18.3%), and City of Decatur (18.2%) have the greatest percentage of people under 9 years. The City of Doraville (42.4%), City of Clarkston (40.9%), and City of Chamblee (28.7%) have the highest percentage of people who speak English less than "very well." The City of Lithonia (14.7%) and City of Clarkston (14.3%) have the highest ratio of households with no vehicle available.

This data, retrieved from the American Community Survey and the DeKalb County 2021 Comprehensive Plan 5-Year Update, provides insight into certain characteristics of DeKalb County that are likely indicators of vulnerability. Based on this data, the greatest population vulnerabilities to severe winter weather hazards in DeKalb County are in the City of Clarkston, the City of Lithonia, and unincorporated areas of the county.



### **Vulnerability of the Economy**

All sectors of DeKalb County's economy are vulnerable to the impacts of severe winter weather hazards. The primary impact to the economy is the loss of work time and production due to power outages and disrupted transportation. Given the significance of the Healthcare industry in DeKalb County, these impacts could stress the capabilities of the community to respond to the medical needs of the community.

### **Vulnerability of the Built Environment**

The built environment includes infrastructure systems, critical facilities, and cultural resources. Infrastructure systems are critical for life safety and economic viability and include transportation, power, communication, and water and wastewater systems. Critical facilities are structures and institutions which are necessary for the community's response to and recovery from emergencies. These critical facilities must continue to operate during and following disasters to reduce the severity of impacts and accelerate recovery. Appendix C of this plan lists the community's infrastructure and critical facilities. Appendix C of this plan lists the places in DeKalb County which are part of the National Register of Historic Places and are considered important cultural resources.

Considering the entire planning area is susceptible to severe winter weather impacts, increased development and population growth can reasonably translate to exposure. The DeKalb County 2021 Comprehensive Plan 5-Year Update visualizes the development of three types of Activity Centers: Neighborhood Centers, Town Centers, and Regional Centers. There are 46 Activity Centers countywide. In addition, the plan includes residential designations: Rural, Suburban, and Traditional. DeKalb County's Future Land Use Map can be accessed via <https://dekalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584>.

### **Vulnerability of Natural Environment**

The 2021 DeKalb County Comprehensive Plan – 5 Year Update lists two significant and unique geological features. Soapstone Ridge, located in the southwestern portion of the county, contains aboriginal steatite quarries which are of archeological and historic significance. Stone Mountain, located in the eastern area of the county, is the largest exposed granite outcropping in the world. The 2021 DeKalb County Comprehensive Plan – 5 Year Update also notes there are various Federally protected wetlands in the area, mostly in the flood prone areas of perennial creeks. These natural environmental resources are minimally vulnerable to severe winter weather impacts.

#### **4.5.5 – Risk Analysis**

All community assets in DeKalb County and the jurisdictions within its boundaries are exposed to severe winter weather impacts. FEMA's National Risk Index (NRI) estimates that DeKalb County and the jurisdictions within its boundaries have \$84,788,355,420 worth of structures exposed to severe winter weather hazards each year. The NRI projects annual losses of 0.15 lives and \$88,756 worth of structures to winter weather hazard impacts each year. This includes impacts associated with cold waves, ice storms, and other winter weather events. According to the NRI, the most significant projected losses to population are from general winter weather events (0.13 deaths). The most significant projected losses to structures are from ice storms (\$74,587).

DeKalb County's most costly wind event in the past 24 years was the January 22, 2000, Ice Storm. The event caused ice accumulations of between 1/4" – 1". This ice storm generated approximately \$980,000 in damage. A similar event now would cost \$1,512,231.

A more significant ice storm would cause greater damage and potentially some deaths or injuries. An analog for a worst-case scenario is the January 2009 Kentucky Ice Storm (<https://www.wdrb.com/weather/wdrb->



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[weather-blog/10-years-later-remembering-the-2009-ice-storm/article\\_b825a46a-215c-11e9-b295-d3cb4d55a68c.html](https://www.weather-blog/10-years-later-remembering-the-2009-ice-storm/article_b825a46a-215c-11e9-b295-d3cb4d55a68c.html)). In this event, between 1" – 2" of ice accumulated in southwestern Kentucky (and other areas of the Midwest). At one point, over 609,000 homes and businesses were without power, which is Kentucky's largest outage on record. Many were without power for a week or more. Trees fell on homes, cars, power lines, and roads. There were at least 24 fatalities in Kentucky related to the storm. These fatalities were caused by a combination of traffic accidents, hypothermia, and carbon monoxide poisoning.

Table 41: Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County

Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Search and Rescue	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Government Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage critical facilities</li><li>• disrupt power and communications to emergency operations centers</li></ul>



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Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"><li>• disrupt essential government functions</li><li>• cause short-term or long-term school cancellations.</li></ul>
	Community Safety	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage flood control systems</li><li>• create secondary hazards</li></ul>
<b>Food, Water, Shelter</b>	Food	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• disrupt commercial food distribution and supply chains</li><li>• affect commercial and home perishable food supplies</li></ul>
	Water	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage pipes</li><li>• generate secondary hazards which can contaminate drinking water systems</li><li>• damage wastewater systems</li></ul>
	Shelter	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage homes</li><li>• damage shelters</li><li>• damage lodging facilities</li><li>• overburden shelter resources</li></ul>
	Agriculture	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure livestock</li><li>• damage crops</li></ul>
<b>Health and Medical</b>	Medical Care	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage hospitals, pharmacies, long-term care facilities, and veterinary clinics</li><li>• disrupt power and communications</li></ul>



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Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"><li>contaminate water supply, affecting the provision of care</li><li>expend resources</li><li>make it difficult or impossible for staff to come to work</li></ul>
	Patient Movement	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>injure personnel</li><li>damage facilities and equipment</li><li>disrupt responder communications</li><li>damage or block transportation routes</li><li>expend resources</li></ul>
	Public Health	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>damage facilities</li><li>disrupt power and communications</li><li>expend resources</li></ul>
	Fatality Management	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>expend resources</li><li>damage facilities and equipment</li><li>disrupt power and communications</li></ul>
	Medical Supply Chain	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li><li>damage or block transportation routes</li></ul>
<b>Energy</b>	Power (Grid)	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>damage generation systems</li><li>damage transmission systems</li><li>damage distribution systems</li></ul>





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Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
	Fuel	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage fuel storage resources</li> <li>• damage fuel distribution locations</li> </ul>
<b>Communications</b>	Infrastructure	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or cause wireless systems to become overburdened</li> <li>• damage cable and wireline systems</li> <li>• damage or disrupt broadcast and satellite systems</li> <li>• damage or cause internet systems to become overburdened</li> </ul>
	Alerts, Warnings, and Messages	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage physical warning systems</li> <li>• disrupt the delivery of emergency alerts and warnings</li> </ul>
	911 and Dispatch	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage public safety answering points or dispatch centers</li> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Responder Communications	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Finance	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage banking facilities and equipment</li> <li>• disrupt communications</li> </ul>
<b>Transportation</b>	Highway/Roadway	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or block roads and bridges</li> <li>• create hazardous driving conditions</li> </ul>



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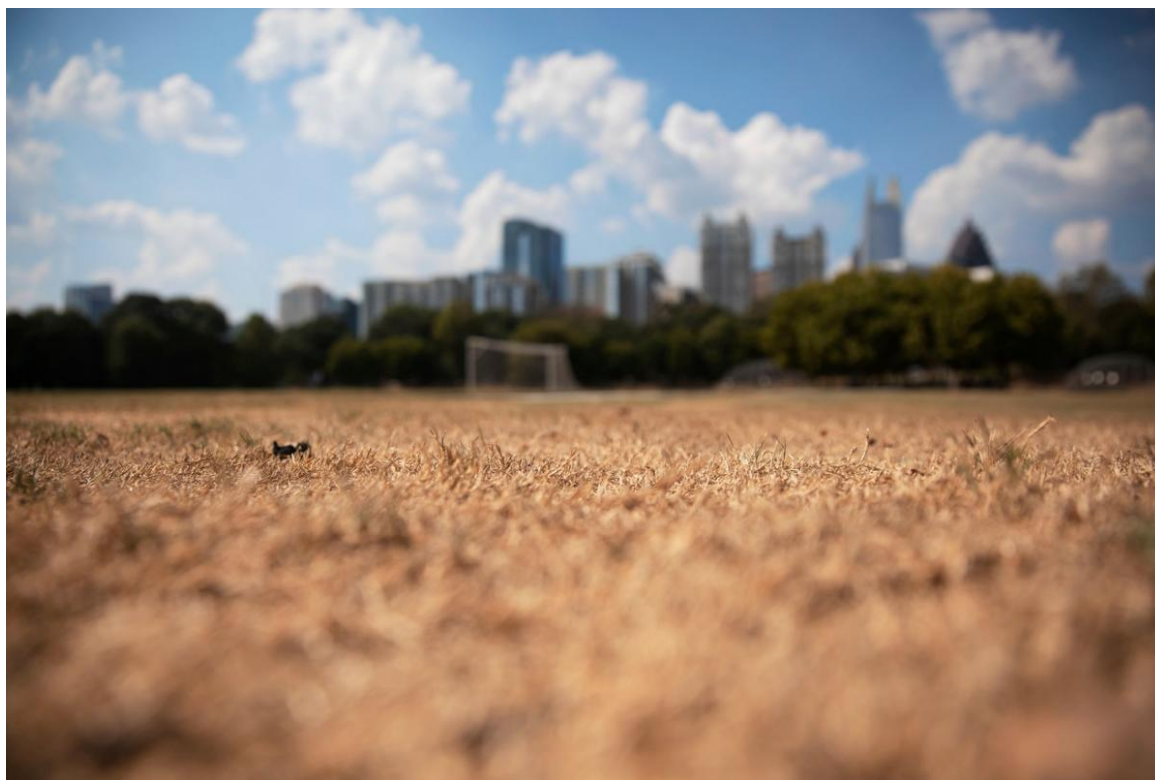
Risk Analysis of Community Lifeline Systems to Severe Winter Weather, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"><li>• expend resources</li></ul>
	Mass Transit	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage buses or trains</li><li>• damage or block transportation routes</li><li>• delay routes</li></ul>
	Railway	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage freight or passenger trains</li><li>• damage or block transportation routes</li><li>• delay routes</li></ul>
	Aviation	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage airports</li><li>• damage aircraft</li><li>• delay routes</li></ul>
	Maritime	<b>No Risk.</b>
<b>Hazardous Materials</b>	Facilities	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• generate oil/hazardous materials/toxic incidents from fixed facilities</li><li>• damage facilities</li><li>• disrupt power supply to facilities</li></ul>
	Hazmat, Pollutants, Contaminants	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• generate oil/hazardous materials/toxic incidents from non-fixed facilities, rail, and roadways</li></ul>



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### 4.5.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
WW1	<b>Severe Winter Weather and People</b> Severe winter weather events, especially ice storms, can cause extended power outages in DeKalb County.	According to the U.S. Census Bureau, 37.5% of residents in DeKalb County use electricity as their primary energy source for heating.	Ice and snowstorms often create extended power outages. Extended power outages in the winter creates dangers in the form of cold weather exposure and carbon monoxide exposure from the improper use of gas furnaces and heaters.
WW2	<b>Severe Winter Weather and Economy</b> Severe winter weather events often create hazardous travel conditions.	Between 80% - 90% of DeKalb County residents community to work via roadways.	Snow and ice events in DeKalb County often cause roads to become impassible. southeastern United States where motorist have less experience driving in the conditions and local governments are less equipped to deal with the impacts. Because of this, businesses often close which negatively affects economy.
WW3	<b>Severe Winter Weather and the Built Environment</b> Severe winter weather events, especially ice storms, can cause extended power outages in DeKalb County.	DeKalb County has identified critical facilities which are necessary for the community's response to emergencies and disasters.	Ice and snowstorms often create power outages in DeKalb County. If a power outage affects the community's critical facilities, the ability of governmental officials, first responders, emergency managers, healthcare workers, and other essential workers ability to respond effectively may be hindered.



### 4.6(D) – Drought

Photo Source: [MDJonline.com](https://www.mdjonline.com) – Most Georgia Counties, including Fulton in Severe

#### 4.6.1 – Hazard Description

Drought is defined as an abnormally dry period lasting months or years when an area has a deficiency of water and precipitation in its surface and or underground water supply. It is, however, a normal, seasonal, and recurrent feature of climate that occurs in virtually all climate zones—typically in late spring through early fall. The duration of drought varies widely. There are cases when drought develops relatively quickly and lasts a very short period, exacerbated by extreme heat and/or wind. There are other cases when a drought spans multiple years, or even decades. The hydrological imbalance can be grouped into the following non-exclusive categories:

- **Agricultural:** When the amount of moisture in the soil no longer meets the needs of previously grown crops,
- **Hydrological:** When surface and subsurface water levels are significantly below their normal levels,
- **Meteorological:** When there is a significant departure from the normal levels of precipitation, and
- **Socio-Economic:** When the water deficiency begins to significantly affect the population.

When little or no rain falls, soil can dry out and plants can die. If unusually dry weather persists and water supply problems develop, the period is defined as a drought. Human activity such as over-farming, excessive irrigation, deforestation, and poor erosion controls can exacerbate a drought's effects. It can take weeks or months before the effects of below average precipitation on bodies of water are observed. Depending upon the region, droughts can happen more quickly, be noticed sooner, or have their effects naturally mitigated. The more humid and wet an area is, the faster the affects will be realized. A naturally dry region, which typically relies more on subsurface water will take more time to actualize its effects.



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FEMA Region IV notes that drought is a cascading hazard; when it occurs, it can make other hazards more dangerous. Dry fuel increases wildfire risk. Expansive soils can shrink during a drought, causing damage to foundations. Loss of ground water can increase sinkholes. Trees are more vulnerable to windstorms as hard, dry soils may not soak up rain, leading to an increased chance of flooding (FEMA Region IV Mitigation Planning Job Aid, Drought Risk Assessment).

### *4.6.2 – Location & Extent*

All of DeKalb County is susceptible to droughts. Droughts in Georgia can affect municipal and industrial water supplies, agriculture, stream water quality, recreation at major reservoirs, hydropower generation, navigation, and forest resources (<https://pubs.usgs.gov/of/2000/0380/pdf/ofr00-380.pdf>).

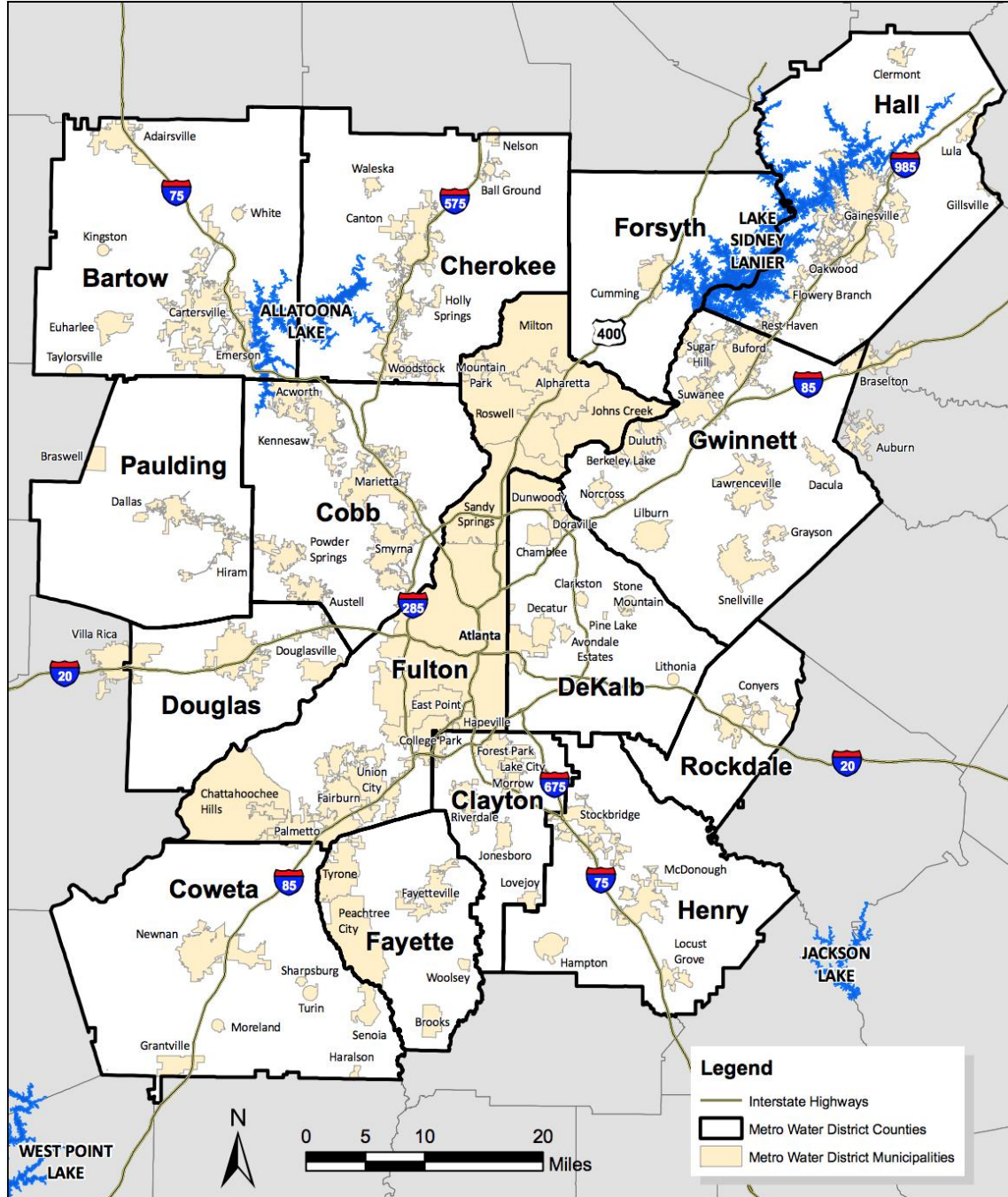
The DeKalb County Department of Watershed Management protects the public health, safety, and welfare through the provision of safe drinking water and quality wastewater treatment. DeKalb County is part of the Metropolitan North Georgia Water Planning District. The Metropolitan North Georgia Water Planning District implements a comprehensive regional water management plan. It is staffed by the Atlanta Regional Commission (ARC) and includes 15 counties and 95 cities. It is the only major metropolitan area in the country with more than 100 jurisdictions implementing a long-term comprehensive water management program that is required and enforced.





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Map 51: Metropolitan North Georgia Water Planning District, Water District Map



Map Source: Metropolitan North Georgia Water Planning District (<https://northgeorgiawater.org/what-is-the-metro-water-district/>)

Map 52: Water Withdrawal, Metro Atlanta, GA Area



Map Source: <https://northgeorgiawater.org/>

The U.S. Drought Monitor provides a summary of drought conditions across the U.S. and Puerto Rico. The map is updated weekly by combining a variety of data-based drought indices and indicators, along with local expert input, into a single composite drought indicator.

The Palmer Drought Index (PDI), devised in 1965, was the first drought indicator to assess moisture status comprehensively. It uses temperature and precipitation data to circulate water supply and demand; incorporates soil moisture; and is considered most effective for unirrigated cropland. It primarily reflects long-term drought and has been used extensively to initiate drought relief.



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Table 42: Palmer Drought Severity Index

Palmer Drought Severity Index	
Category	Index
Extremely Wet	4.0 or more
Very Wet	3.0 to 3.99
Moderately Wet	2.0 to 2.99
Slightly Wet	1.0 to 1.99
Incipient Wet Spell	0.5 to 0.99
Near Normal	0.49 to -0.49
Incipient Dry Spell	-0.5 to -0.99
Mild Drought	-1.0 to -1.99
Moderate Drought	-2.0 to -2.99
Severe Drought	-3.0 to -3.99
Extreme Drought	-4.0 or less

The Standardized Precipitation Index (SPI) is an index to characterize meteorological drought on a range of timescales, ranging from 1 to 72 months. The SPI is the number of standard deviations that observed cumulative precipitation deviates from the climatological average. NOAA's National Centers for Environmental Information produce the 9-month SPI values below monthly, going back to 1895.

Table 43: Standard Precipitation Index

Standard Precipitation Index	
Category	Index
Extremely Wet	2.0+
Very Wet	1.5 to 1.99
Moderately Wet	1.0 to 1.49
Near Normal	-.99 to .99
Moderately Dry	-1.0 to -1.49
Severely Dry	-1.5 to -1.99
Extremely Dry	-2 and less

Drought is a persistent problem across the nation, as evidenced by its widespread presence in 2018. Early in the year (February 2018), the U.S. Drought Monitor reported that 38.4% of the continental U.S. was in drought. That was the highest percentage since the 40% recorded in May 2014. Additionally, consider there is technically no longer a “fire season” for the State of California, as it has become a tinderbox for drought-related wildfires year-round. Other states across the country are, unfortunately, following suit.

### 4.6.3 – Previous Occurrences

Drought events and periods are not as clearly defined as other hazard events. For this plan, the planning team used data from the National Centers for Environmental Information (NCEI), U.S. Drought Atlas, and National Drought Center – Drought Mitigation Report. The planning team used the Standard Precipitation Index (SPI) because it uses precipitation only and can characterize drought or abnormal wetness at different time scales which correspond with the time availability of different water resources. Drought events reaching at least SPI Drought Classification -1.0 (Moderately Dry) are recorded in this plan. The drought period ends with the index returns to zero. For example, if the SPI reached “-1.0” on January 1, 2020, a drought period would begin. The drought period would end when the SPI reach “0”. The planning team analyzed U.S.



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Drought Atlas data from the Atlanta Hartsfield International Airport (latitude 33.63, longitude -84.442). This is the nearest reporting station to DeKalb County.

Between 1950 and 2020, drought events have impacted DeKalb County and the incorporated communities within its boundaries for 1017 of the 3640 weeks. Between January 1, 2016, and December 31, 2020, droughts have impacted DeKalb County and the incorporated communities within its boundaries for 40 of the 260 weeks.

Table 44: Drought Weeks (1950-2020)

Drought Weeks (1950-2020)			
Decade	Moderately Dry Weeks	Severely Dry Weeks	Extremely Dry Weeks
1950s	68	51	60
1960s	45	54	24
1970s	69	19	55
1980s	54	40	65
1990s	73	25	28
2000s	51	43	72
2010s	61	25	35
2020	0	0	0
Total	421	257	339

Data Source: Drought Risk Atlas (<https://droughtatlas.unl.edu/Data/Climate.aspx>)

Table 45: Drought Weeks (2016-2020)

Drought Weeks (2016-2020)			
Year	Moderately Dry Weeks	Severely Dry Weeks	Extremely Dry Weeks
2016	2	4	24
2017	8	2	0
2018	0	0	0
2019	0	0	0
2020	0	0	0
Total	10	4	24

Data Source: NOAA/NCEI Storm Events Database

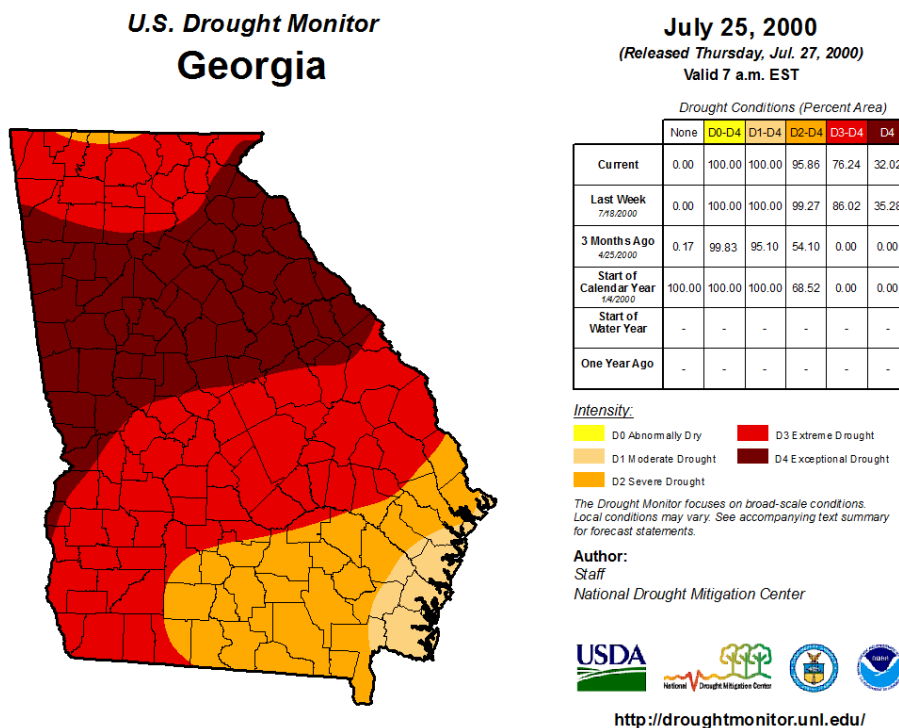
**April 2000 – August 2000, Drought:** The drought began in April 2000, as the area was experiencing a rainfall deficit of between 12 to 15 inches. At the height of the drought, the Center for Climate Prediction



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and the U.S. Department of Agriculture classified most of central Georgia in an exceptional drought. Water supplies continued to dwindle in most areas. Stream flows were at or below the lowest 10th percentile of the historical distribution for June at 90 percent of Georgia's observing sites. Twenty-nine percent of Georgia's cotton crop was rated in a poor to very poor condition. University of Georgia cumulative crop damage estimates for the whole state were placed at \$689 million dollars, plus another \$50 million dollars in increased irrigation costs, for a total estimate of \$739 million in losses statewide. Water shortages prompted the Georgia Department of Natural Resources to institute statewide restrictions on outdoor water use.

Map 53: U.S. Drought Monitor, Georgia, July 25, 2000



Source: U.S. Drought Monitor (<https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>)

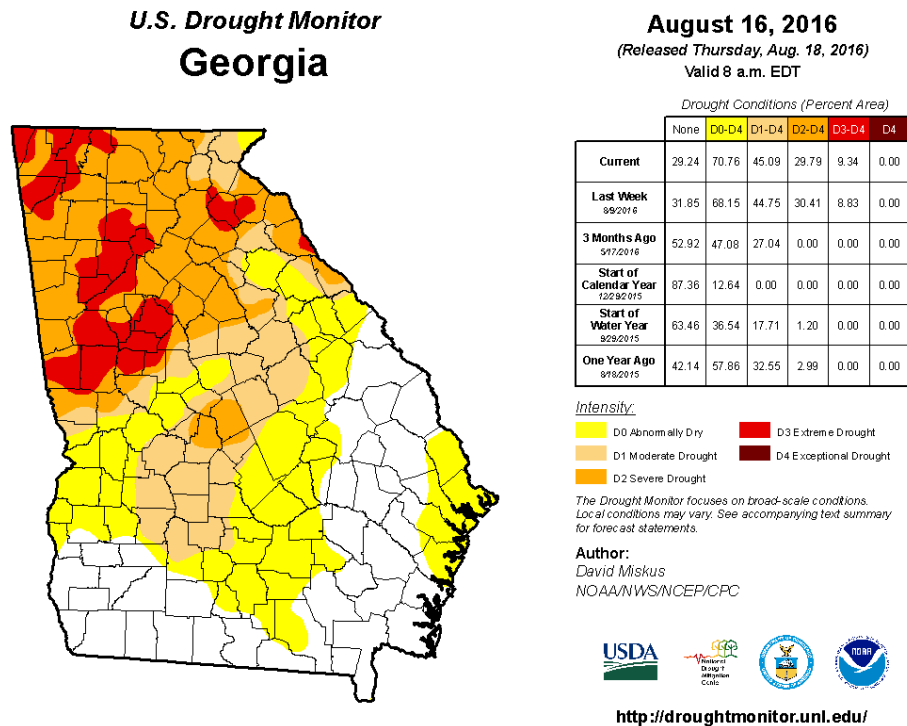
**March 2016 – August 2016, Drought:** The drought began in March and continued through the summer months of 2016. The drought severely affected corn and peanut crops across the area. Area farmers also suffered losses on the sale of hay. Pastureland across the region was so dry that farmers had to let cattle graze on land normally used to grow hay, and in some cases, had to feed their cattle hay. The DeKalb County Department of Watershed Management implemented water restrictions. The Georgia Forestry Commission also issued advisories for outdoor burning due to the elevated fire risk.





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Map 54: U.S. Drought Monitor, Georgia, August 16, 2016



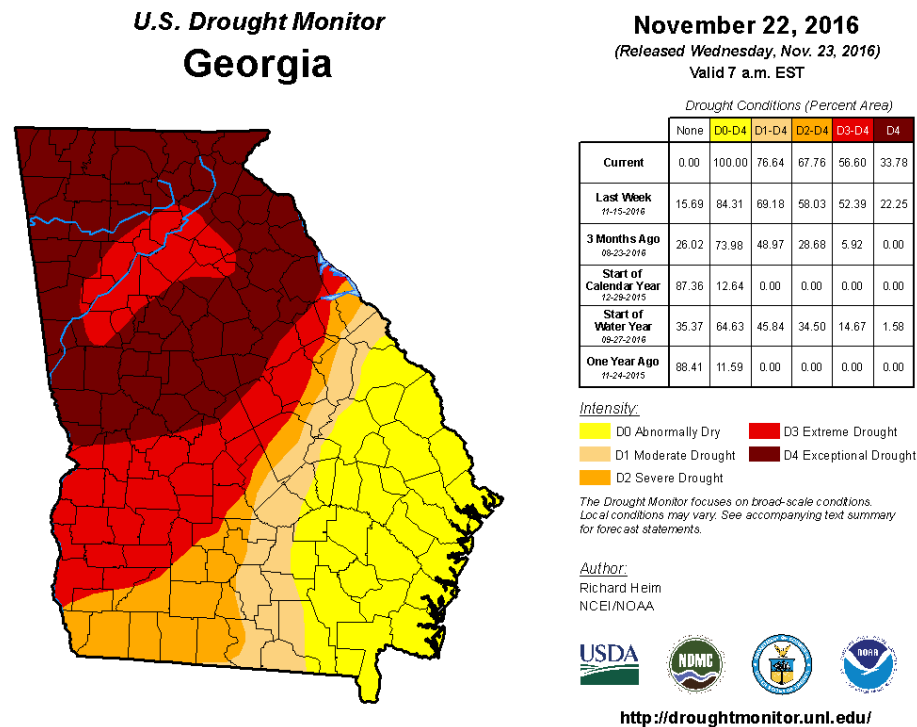
Source: U.S. Drought Monitor (<https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>)

**October 2016 – November 2016, Drought:** After a brief break, the second drought of 2016 began on October 14<sup>th</sup>. Soil, streams and vegetation did not have enough time to recover from the previous 22 week-long drought, which made the situation worse. On November 17<sup>th</sup>, Georgia Governor Nathan Deal raised 52 counties from Level I to Level II Drought Response. This designation prohibited many outdoor water uses including washing hard surfaces such as streets and sidewalks, water for ornamental purposes, the use of fire hydrants except for firefighting and public safety, non-commercial washing of vehicles, non-commercial pressure washing, and fundraising car washes. (<https://www.walb.com/story/33736857/governor-raises-drought-designations-prompting-restrictions/>)



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Map 55: U.S. Drought Monitor, Georgia, November 22, 2016



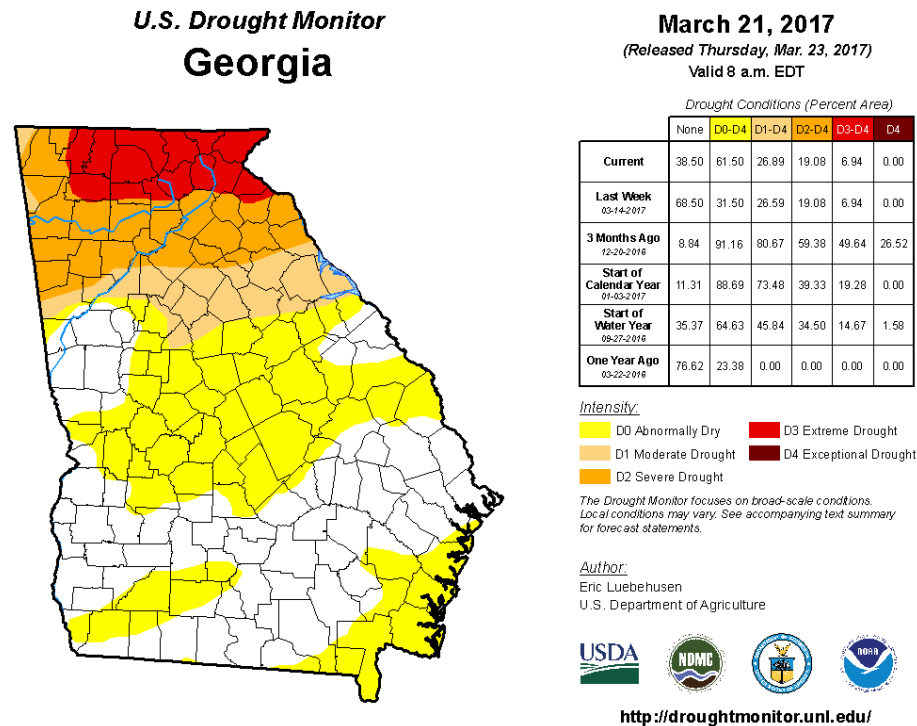
Source: U.S. Drought Monitor (<https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>)

**March 2017 – April 2017, Drought:** Long-term drought conditions, experience since early 2016, were finally improving in early 2017 due to an active weather pattern. However, a short-term drought occurred in early spring. The active weather pattern quickly ended the short-term drought, and ultimately, the long-term drought.



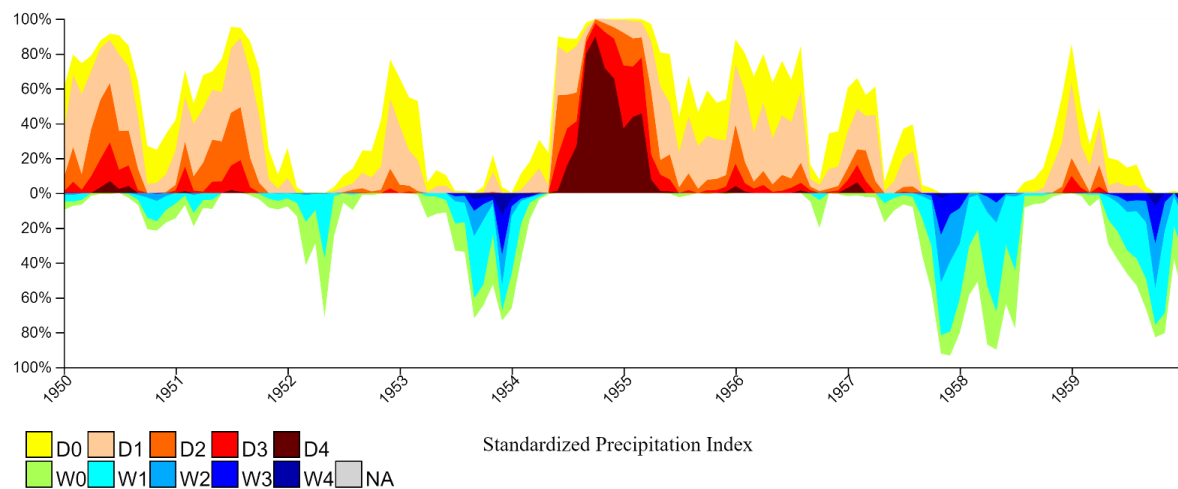
## SECTION 4: RISK ASSESSMENT

Map 56: U.S. Drought Monitor, Georgia, March 21, 2017



Source: U.S. Drought Monitor (<https://droughtmonitor.unl.edu/Maps/MapArchive.aspx>)

Illustration 5: Georgia Drought Graph – 1950s

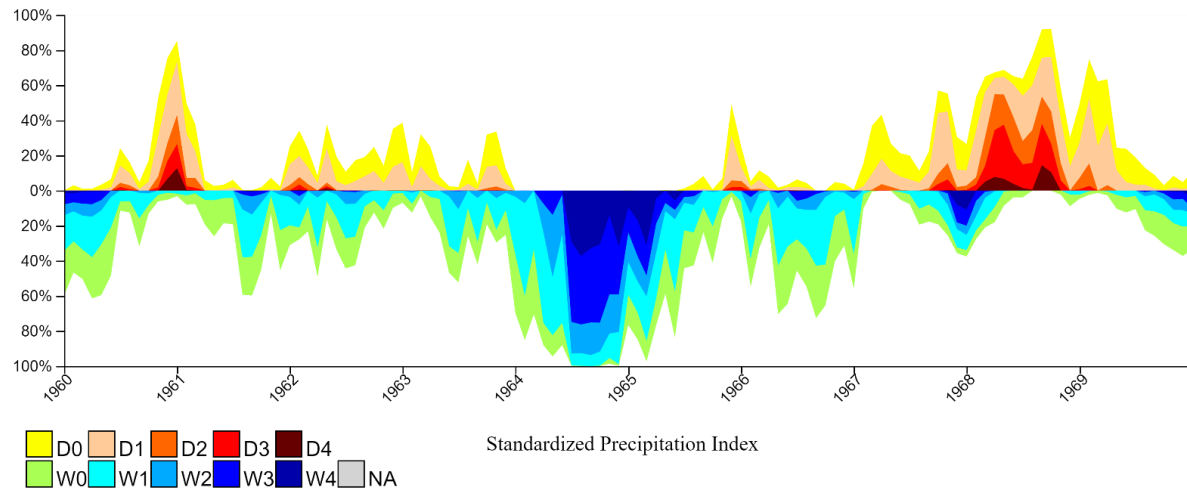


Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)



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Illustration 6: Georgia Drought Graph – 1960s

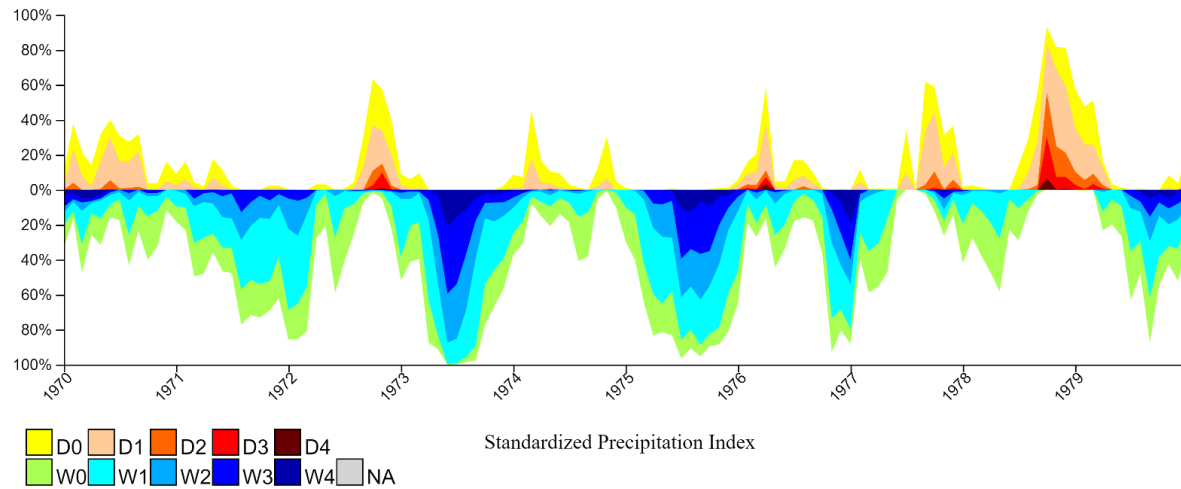


Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)



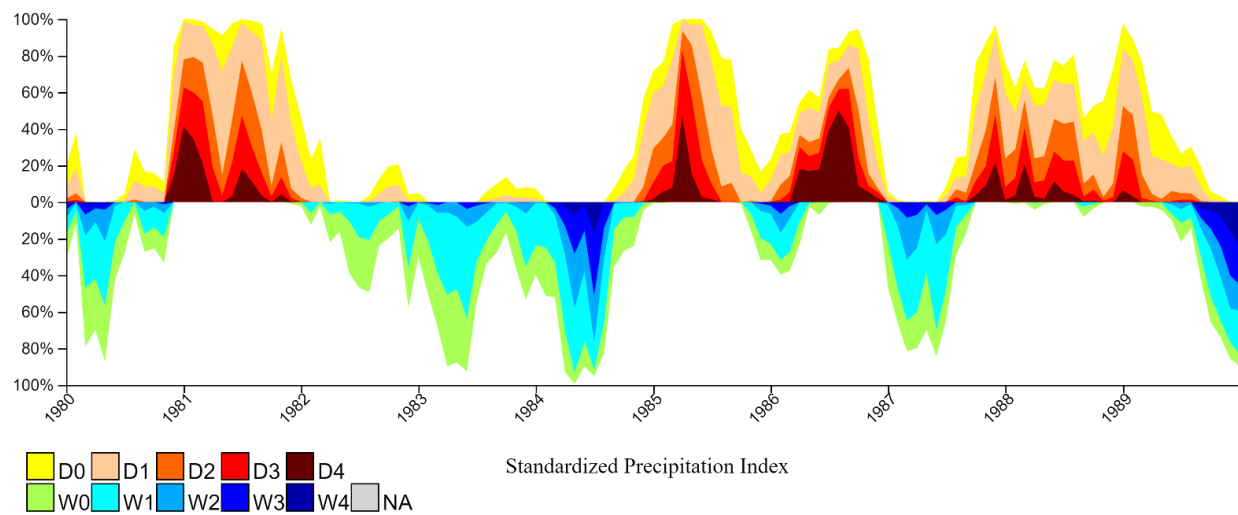
## SECTION 4: RISK ASSESSMENT

*Illustration 7: Georgia Drought Graph – 1970s*



Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)

*Illustration 8: Georgia Drought Graph – 1980s*



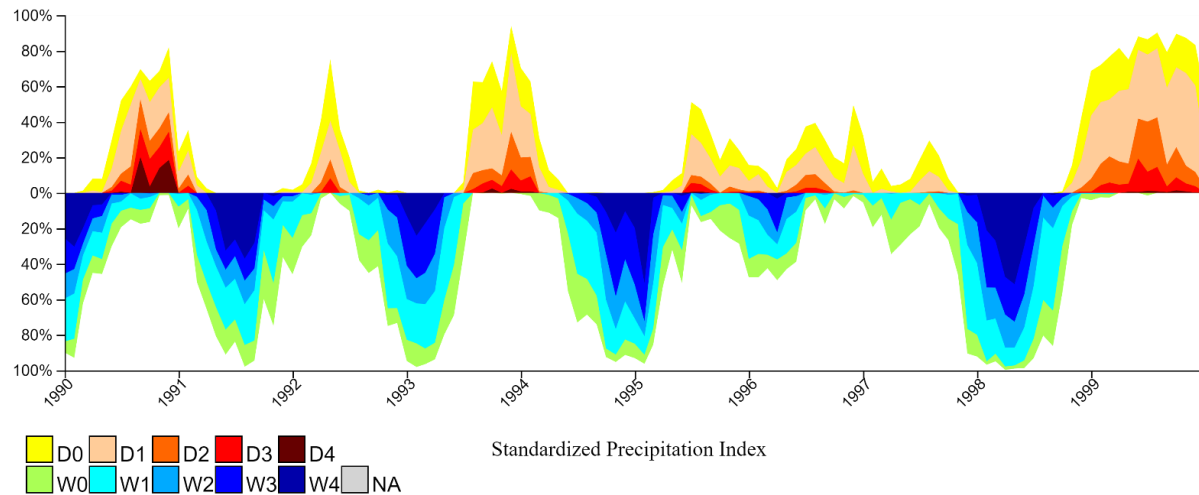
Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)





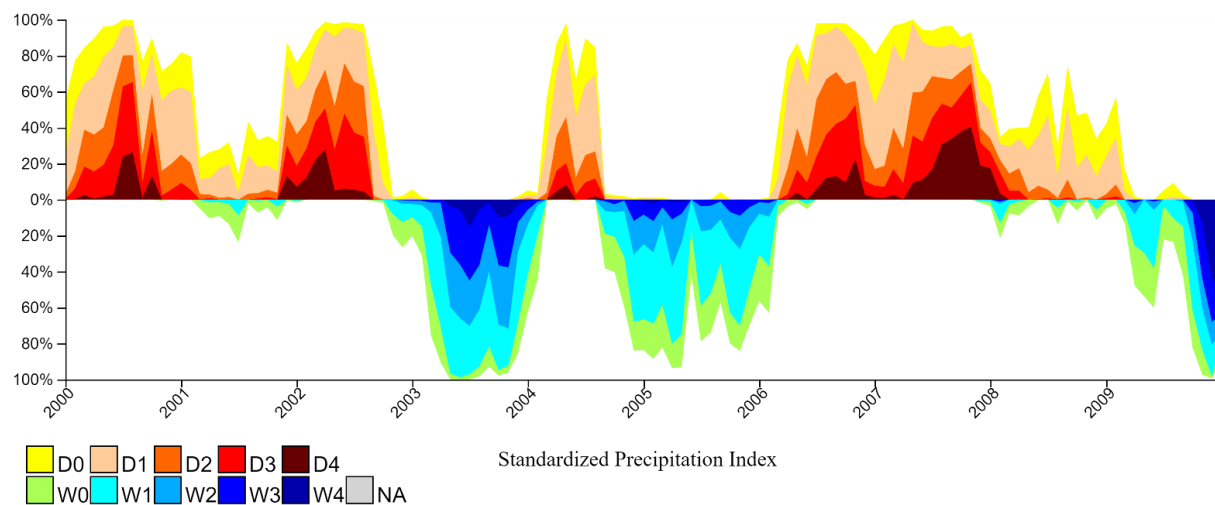
## SECTION 4: RISK ASSESSMENT

Illustration 9: Georgia Drought Graph – 1990s



Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)

Illustration 10: Georgia Drought Graph – 2000s



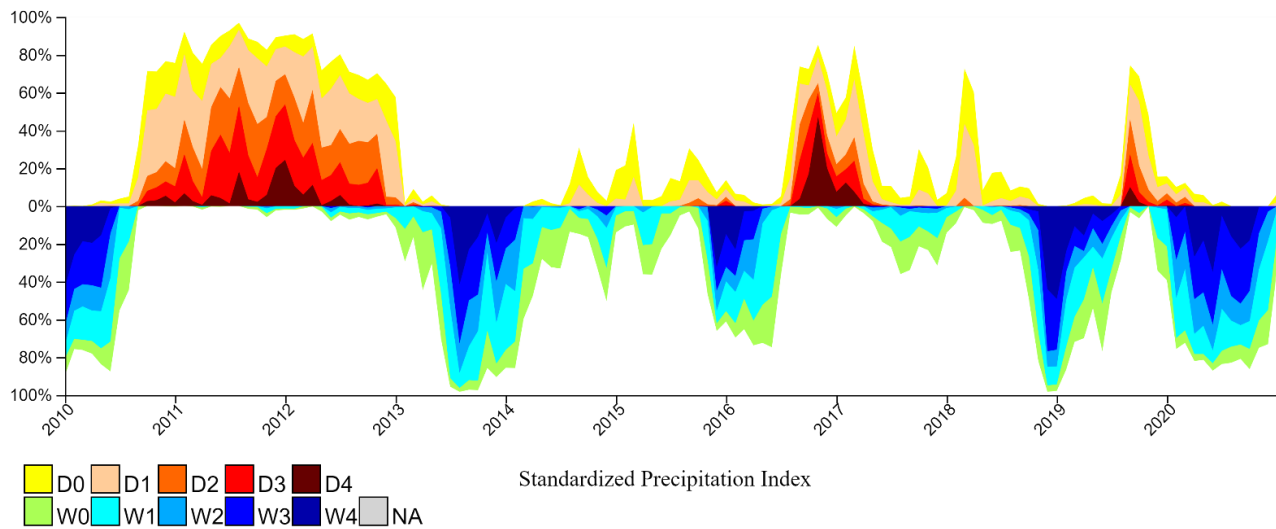
Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)

Illustration 11: Georgia Drought Graph – 2010s

DeKalb County, GA – 2022 Countywide Hazard Mitigation Update



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Source: NOAA NIDIS (<https://www.drought.gov/states/georgia/county/Dekalb>)

### 4.6.3A – Probability of Future Events

Table 47: Probability of Future Events, Drought

Probability of Future Events, Drought			
Decade	Moderately Dry Weeks	Severely Dry Weeks	Extremely Dry Weeks
1950s	68	51	60
1960s	45	54	24
1970s	69	19	55
1980s	54	40	65
1990s	73	25	28
2000s	51	43	72
2010s	61	25	35
2020	0	0	0
<b>Total</b>	<b>421</b>	<b>257</b>	<b>339</b>
<b>Weeks</b>	<b>3640</b>		
<b>Probability Each Week</b>	<b>12%</b>	<b>7%</b>	<b>9%</b>
<b>Total Drought Weeks</b>	<b>1017</b>		
<b>Probability of a Drought Each Week (Total Drought Weeks/Total Weeks)</b>	<b>28%</b>		

Data Source: NOAA/NCEI Storm Events Database



Between 1950 – 2020, moderately dry weeks have occurred 421 of the 3640 weeks. Severely dry weeks have occurred 257 of the 3640 weeks. Extremely dry weeks have occurred 339 of the 3640 weeks. Wet and dry periods often occur over an extended period, based on the prevailing weather pattern. Based on this data, it is **likely** a drought of some magnitude will occur in DeKalb County during the next five-years.

### 4.6.4 – Vulnerability of Community Assets

#### **Vulnerability of People**

Severe drought can pose a significant risk to public health if water sources become scarce, or worse, contaminated. This is especially true for those who get their drinking water from private wells. Per the Centers for Disease Control (CDC), viruses, such as E. coli and salmonella, as well as protozoa and bacteria, can pollute both groundwater and surface water when rainfall decreases. Additionally, acute respiratory and gastrointestinal illnesses are more easily spread from person-to-person when hand washing is compromised by a perceived or real lack of available water.

#### **Vulnerability of the Economy**

DeKalb County and its participating jurisdictions have significant agricultural areas which are vulnerable to drought. According to the 2017 USDA Census of Agriculture DeKalb County contained 34 farms, covering 468 acres of land. Total commodity sales equal \$547,000 per year. This includes a total of \$388,000 in crop sales and \$158,000 in animal product sales. ([https://www.nass.usda.gov/Quick\\_Stats/CDQT/chapter/2/table/1/state/GA/county/089/year/2017](https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/2/table/1/state/GA/county/089/year/2017)).

#### **Vulnerability of the Built Environment**

Drought typically does not have a direct impact on critical facilities or infrastructure. However, possible losses/impacts to them can include loss of critical functions due to low water supplies. Severe droughts can negatively affect drinking water supplies. Should a public water system be affected, the losses could total into the millions if water must be purchased and shipped from other locations.

#### **Vulnerability of Natural Environment**

Droughts can increase an area's vulnerability to wildfire due to dry vegetation. Dry, hot, and windy weather combined with dry vegetation and a spark, whether through human intent, accident, or lightning, can trigger a blaze. Such fires, as experienced in Georgia's Okefenokee National Wildlife Refuge in April 2017, can scorch hundreds of thousands of acres of land.

Droughts also decrease streamflow and groundwater supplies. During a drought period in November 2016, a United States Geological Survey (USGS) Groundwater Watch station, located at Latitude 33°55'17", Longitude 84°16'40" in DeKalb County recorded groundwater depth at 8.94 feet below the surface, which was the lowest since the station became operational in 1980. This type of groundwater depletion can impact water supplies and agricultural production.

Because the population of DeKalb County continues to grow and development projects are underway, people and facilities within the planning area are increasingly vulnerable to the short- and long-term effects of drought. Water conservation is a major need during drought events.

The DeKalb County Department of Watershed Management, Metropolitan North Georgia Water Planning District, and Georgia Environmental Protection Division encourages water conservation and water-saving habits within the planning area. Residents are encouraged to take steps to conserve water in their homes and places of business. Additionally, they are reminded to abide by the State of Georgia's permanent "Year-Round Outdoor Water Restrictions" which limit outdoor watering to before 10:00 AM and after 4:00 PM in order to avoid the hottest part of the day when more evaporation occurs. Both the DeKalb County Department of Watershed Management and the Metropolitan North Georgia Water Planning District



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encourages the community to conserve water during drought events and provides this information through its website (<https://www.dekalbcountyga.gov/watershed-management/dekalb-county-drought-restrictions>) and public outreach events within the communities they serve.

### 4.6.5 – Risk Analysis

DeKalb County's natural environment is most at risk to drought. Water resources are depleted by droughts. Wildfire risk also increases as vegetation becomes dry. These risks naturally have trickle-down effects on the people, built environment, and economy of DeKalb County. Low water supply creates water restrictions, which affect people. Droughts also can cause the water supply to be contaminated by biological agents. The operations of critical facilities, such as hospitals, may be affected by low or contaminated water supply. Farmers, who depend on rainfall for their agricultural production, are often most at risk of drought-related impacts.

FEMA's National Risk Index (NRI) estimates that DeKalb County and the jurisdictions within its boundaries have \$518,283 worth of agriculture are exposed to drought hazards impacts each year. The NRI projects annual losses of \$21,144 worth of agriculture to drought hazard impacts each year.

A long period of extreme or critical drought conditions, such as the 2016 drought, will expose farmers to lost revenue, estimated to be \$547,000 in the 2017 USDA Agricultural Census. It will cause the need for water restrictions, such as those placed by local and state entities in response to the 2016 drought. It will expose the land to wildfire dangers, such as occurred during the Okefenokee National Wildlife Refuge in April 2017.

Table 48: Risk Analysis of Community Lifeline Systems to Drought, DeKalb County

Risk Analysis of Community Lifeline Systems to Drought, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
<b>Safety and Security</b>	Law Enforcement /Security	<b>No Risk.</b>
	Fire Services	<b>High Risk.</b> Droughts may deplete firefighting water supplies. Droughts may also create extreme wildfire dangers.
	Search and Rescue	<b>No Risk.</b>
	Government Services	<b>No Risk.</b>
	Community Safety	<b>No Risk.</b>
<b>Food, Water, Shelter</b>	Food	<b>Moderate Risk.</b> Droughts may affect food production.
	Water	<b>High Risk.</b> Droughts may cause water supplies to become contaminated or limited.
	Shelter	<b>No Risk.</b>
	Agriculture	<b>High Risk.</b> Droughts may limit agricultural production.
<b>Health and Medical</b>	Medical Care	<b>Low Risk.</b> Droughts may cause water supplies to be contaminated or limited, affecting hospitals and other medical facilities.



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	Patient Movement	<b>No Risk.</b>
	Public Health	<b>Low Risk.</b> Droughts may cause water supplies to become contaminated, causing a public health emergency.
	Fatality Management	<b>No Risk.</b>
	Medical Supply Chain	<b>No Risk.</b>
<b>Energy</b>	Power (Grid)	<b>Low Risk.</b> Droughts may affect hydro-electrical generation.
	Fuel	<b>No Risk.</b>
<b>Communications</b>	Infrastructure	<b>No Risk.</b>
	Alerts, Warnings, and Messages	<b>No Risk.</b>
	911 and Dispatch	<b>No Risk.</b>
	Responder Communications	<b>No Risk.</b>
	Finance	<b>No Risk.</b>
<b>Transportation</b>	Highway/Roadway	<b>Low Risk.</b> Droughts increase the occurrences of sinkholes, which may impact roadways.
	Mass Transit	<b>No Risk.</b>
	Railway	<b>No Risk.</b>
	Aviation	<b>No Risk.</b>
	Maritime	<b>No Risk.</b>
<b>Hazardous Materials</b>	Facilities	<b>Low Risk.</b> Droughts may cause water supplies to hazardous materials facilities to become limited.
	Hazmat, Pollutants, Contaminants	<b>No Risk.</b>





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### 4.6.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
D1	<b>Drought and Economy</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	Agricultural production generates over a half-million dollars of income for farmers in DeKalb County.	Agricultural production is at a high-risk during drought periods. This risk affects the economy and people of DeKalb County.
D2	<b>Drought and Natural Environment</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	DeKalb County residents and critical facilities depend upon surface and groundwater reservoirs for the community's water supply.	Rivers, streams, and groundwater reservoirs are at a high-risk during drought periods. This risk affects the people, businesses, and critical facilities of DeKalb County.
D3	<b>Drought and Natural Environment</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	DeKalb County's natural environment consists of woodland areas. Numerous people live in and around these wooded areas.	Woodlands are at high-risk of wildfire during long-term drought periods. This risk affects people living near the wooded areas.



### 4.7(WF) – Wildfire

#### 4.7.1 – Hazard Description

The National Weather Service (NWS) defines a wildfire as “any free-burning, uncontrollable wildland fire not prescribed for the area which consumes the natural fuels and spreads in response to its environment.” Wildfires can occur naturally from a lightning strike; by human accident from a non-fully extinguished campfire; and on rare occasions, by human actions, or arson. The threat of wildfire increases in areas prone to intermittent drought, or that are generally arid and dry. Regardless of how they begin, wildfires can consume large areas including infrastructure, property, and resources.

There are three general types of wildfires—ground, surface, and crown. Ground fires, often referred to as underground or subsurface fires, occur in deep accumulations of organic matter such as humus, peat and similar dead vegetation that are dry enough to burn. These fires move very slowly and become difficult to fully extinguish or suppress. Occasionally, during prolonged drought, ground fires can smolder all winter underground and then emerge at the surface again in the spring. Surface fires burn only surface litter and duff, including leaves and fallen branches, and are the easiest of all fires to extinguish. Crown fires, on the other hand, are the most intense and most difficult to maintain. They burn trees up their entire length, and usually occur where there are strong winds, steep slopes, and a heavy fuel load (e.g., densely wooded forests).

Wildfires are also notorious for spawning secondary hazards long after the original fire is extinguished. Such hazards include flash flooding, debris flows, and landslides. All result from fire consuming the vegetation that provides precipitation interception and infiltration as well as slope stability.



Fire services can mitigate wildfires by regularly engaging in preventative burns and proactive land use measures. Homeowners and business owners can also do their part by taking precautionary efforts, such as following local fire-related ordinances; removing leaves, limbs, and other debris from property; and creating a defensible space around structures. Among those emphasizing the need for such preemptive actions is Firewise USA™, a national recognition program that provides instructional resources to inform people how to adapt to living with the risk of wildfire.

### 4.7.2 – Location & Extent

According to the 2019 Georgia Hazard Mitigation Strategy, all of Georgia is prone to wildfire due to the presence of wildland fuels associated with wildfires, which include coniferous, deciduous, and mixed forest; shrublands, grasslands and herbaceous, and woody/emergent wetlands.

With more people making their homes in wooded settings near forests and remote mountain sites, the threat of wildfire is steadily on the rise. This is because the demographic change is expanding the size of the area where structures and other human development meet or intermingle with undeveloped wildland, otherwise known as the wildland urban interface (WUI). The U.S. Fire Administration defines the WUI as the zone of transition between unoccupied land and human development. It is the line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels (<https://www.usfa.fema.gov/wui/what-is-the-wui.html>). The WUI creates an environment in which fire can move readily between structure and vegetation fuels, often resulting in massive fires, or conflagrations, that may lead to widespread evacuations.

The WUI is composed of interface and intermix communities. Intermix WUI refers to areas where housing and wildland vegetation intermingle. Interface WUI refers to areas where housing is in the vicinity of a large area of dense wildland vegetation. Georgia has a large percentage of homes in the WUI. According to the USDA, 47.7% of homes in Georgia are in the WUI; 20.3% are in the interface and 27.4% are in the intermix. Also, 47.5% of the population reside in the WUI; 20.1% are in the interface and 20.1% are in the intermix ([https://www.fs.fed.us/nrs/pubs/rmap/rmap\\_nrs8.pdf](https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf)).

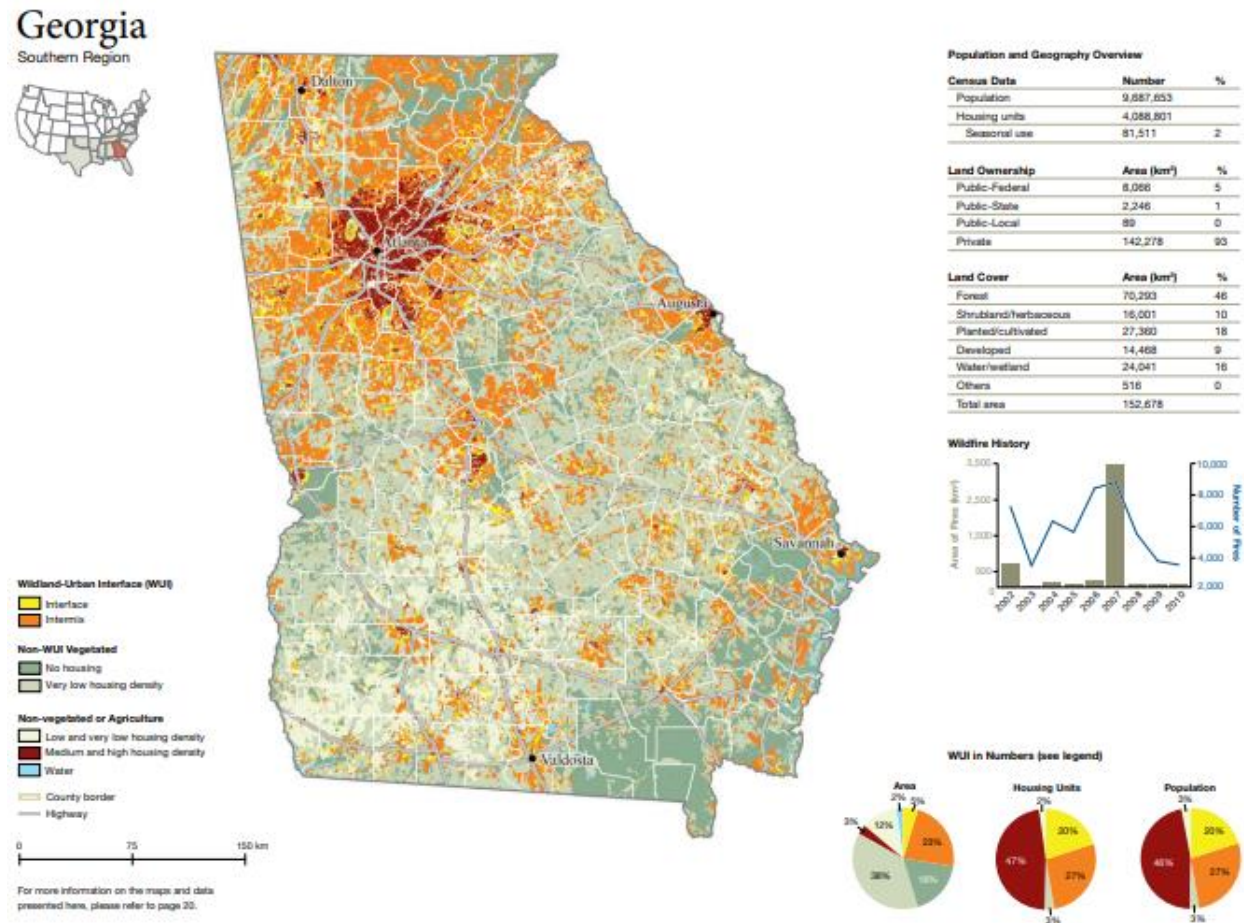
Table 49: Definition of WUI and non-WUI land-use classes

Definition of WUI and non-WUI land-use classes	
WUI	Definition
Intermix	Areas with $\geq 6.18$ houses per square km and $\geq 50\%$ cover of wildland vegetation
Interface	Areas with $\geq 6.18$ houses per square km and $\leq 50\%$ cover of vegetation located $< 2.4$ km of an area $\geq 5$ square km in size that is $\geq 75\%$ vegetated
Non-WUI, Vegetated	Definition
No housing	Areas with $\geq 50$ percent cover of wildland vegetation and no houses (e.g., protected areas, steep slopes, mountain tops)
Very low housing density	Areas with $\geq 50$ percent cover of wildland vegetation and $< 6.18$ houses per km <sup>2</sup> (e.g., dispersed rural housing outside neighborhoods)
Non-Vegetated or Agriculture	Definition
Low and very low housing density	Areas with $< 50$ percent cover of wildland vegetation and $< 49.42$ houses per square mile (e.g., agricultural lands and pasturelands)

Medium and high housing density	Areas with <50 percent cover of wildland vegetation and ≥49.42 houses density per square km (e.g., urban and suburban areas, which may have vegetation, but not dense vegetation)
---------------------------------	---

Data Source: USDA, The 2010 Wildland-Urban Interface of the Conterminous United States ([https://www.fs.fed.us/nrs/pubs/rmap/rmap\\_nrs8.pdf](https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf))

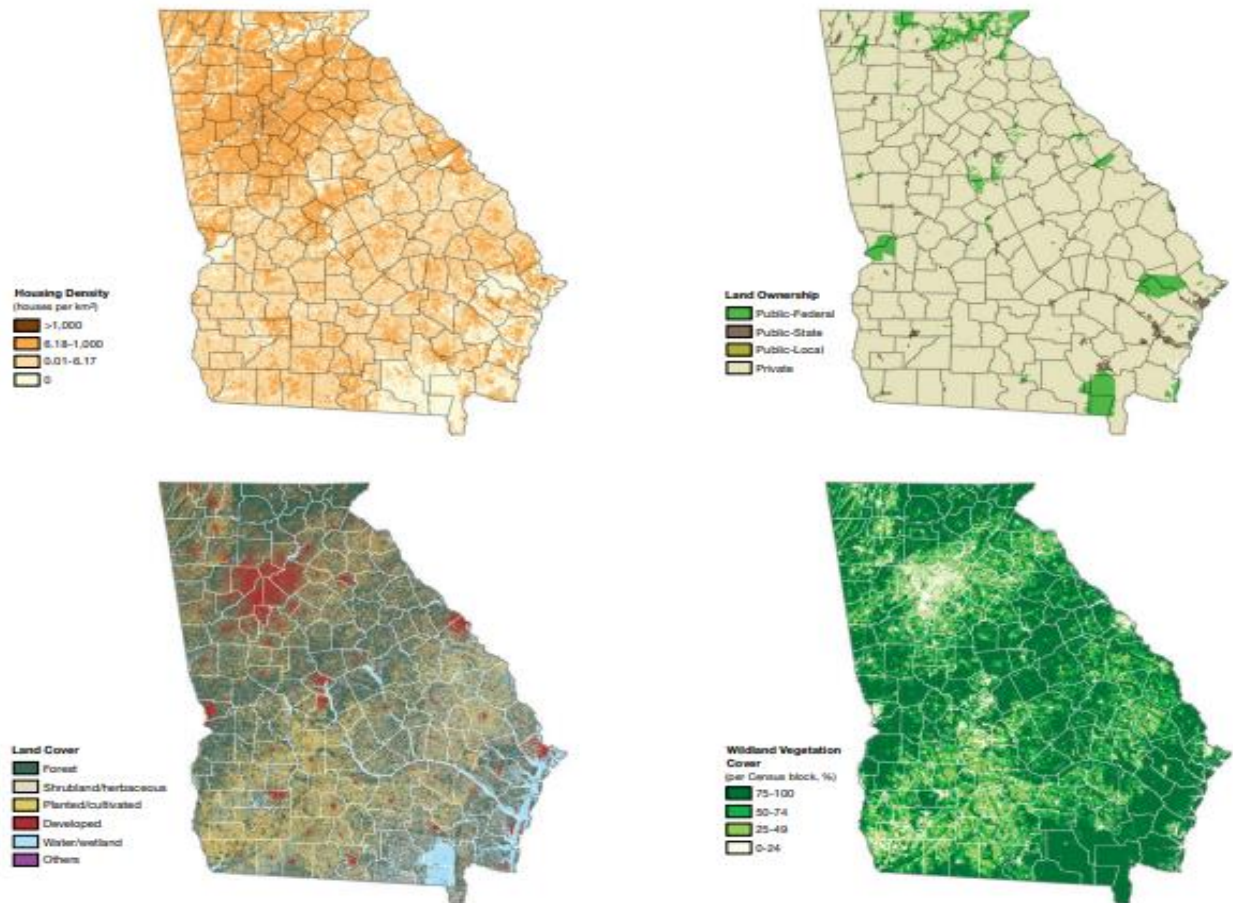
Map 57: Georgia Wildland Urban Interface Map



Data Source: USDA, The 2010 Wildland-Urban Interface of the Conterminous United States ([https://www.fs.fed.us/nrs/pubs/rmap/rmap\\_nrs8.pdf](https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf))



Map 58: Georgia WUI Auxiliary Maps



Data Source: USDA, *The 2010 Wildland-Urban Interface of the Conterminous United States*  
[https://www.fs.fed.us/nrs/pubs/rmap/rmap\\_nrs8.pdf](https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf)

The WUI Risk Index is a rating of the potential impact of a wildfire on people and their homes. The key input, WUI, reflects housing density (houses per acre) consistent with Federal Register National standards. The location of people living in the WUI, and rural areas is key information for defining potential wildfire impacts to people and homes.

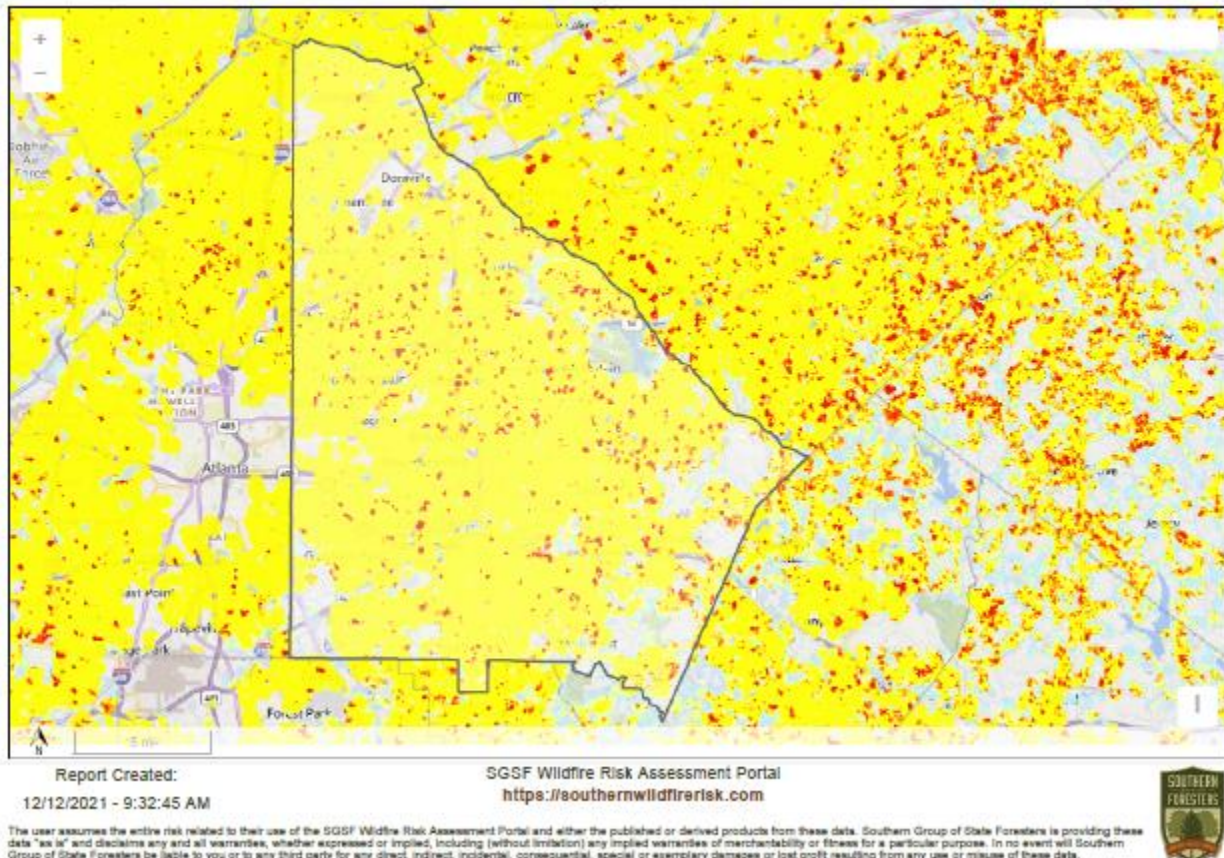
The WUI Risk Index is derived using a Response Function modeling approach. Response functions are a method of assigning a net change in the value to a resource or asset based on susceptibility to fire at different intensity levels, such as flame length. The WUI Risk Index range of values is from -1 to -9, with -1 representing the least negative impact and -9 representing the most negative impact. Areas with high housing density and higher flame lengths will be lower on the scale (i.e., -9) while areas with low housing density and high flame lengths will be rated higher (i.e., -1). To calculate the WUI Risk Index, the WUI housing density data was combined with Flame Length data and response functions were applied to represent potential negative impacts for all unique conditions of WUI housing density and flame length. The response functions were defined by a team of experts based. By combining flame length with the WUI housing density data, a community can determine where the greatest potential impact to homes and people is likely to occur.



Flame Length is used as a measure of fire intensity. With the WUI Risk Index the analysis incorporates penetration into urban fringe areas so that outputs better reflect real world conditions for fire spread and impact in urban interface areas. This allows houses in urban areas adjacent to wildland fuels to be incorporated into the WUI risk modeling. (<https://southernwildfirerisk.com/>)

Map 59: DeKalb County WUI Risk Index

### DeKalb County Wildfire Hazard Risk Assessment Wildland Urban Interface Risk Index



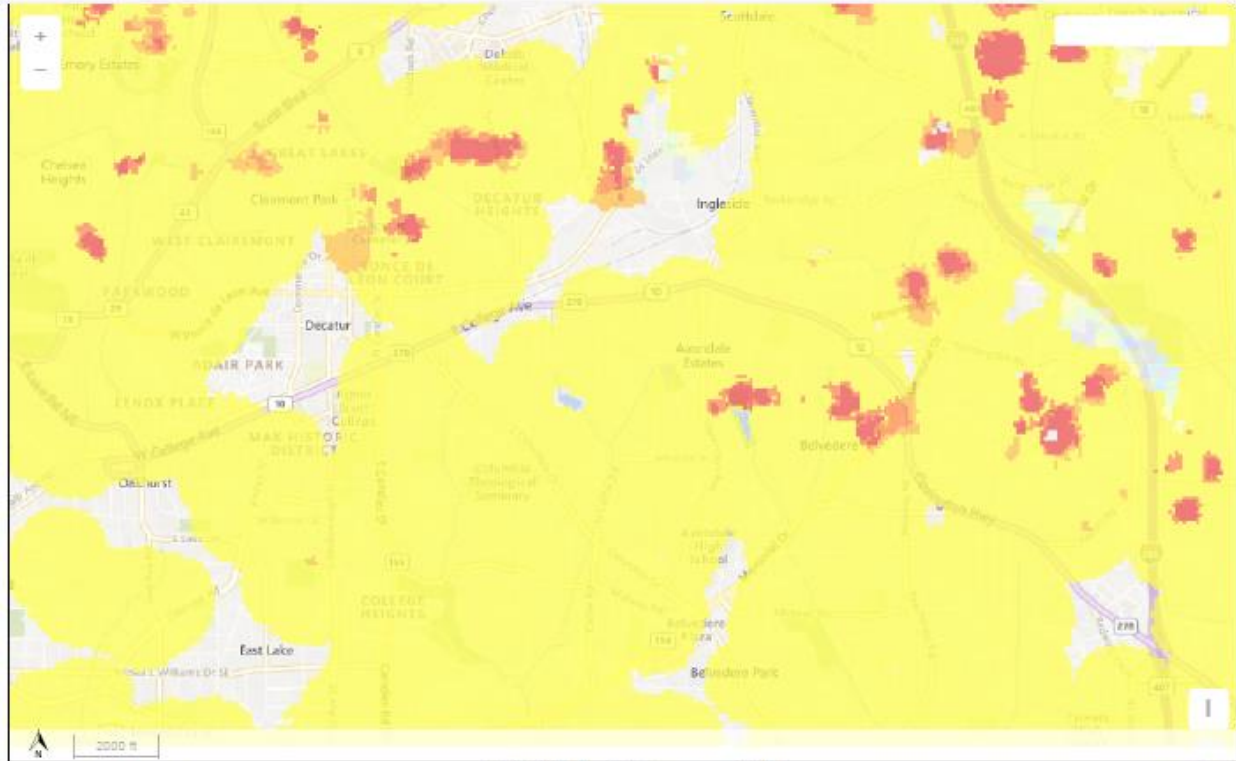
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 60: City of Avondale Estates WUI Risk Index

### Avondale Estates Wildfire Risk Assessment

Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:40:03 AM

SGSF Wildfire Risk Assessment Portal  
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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

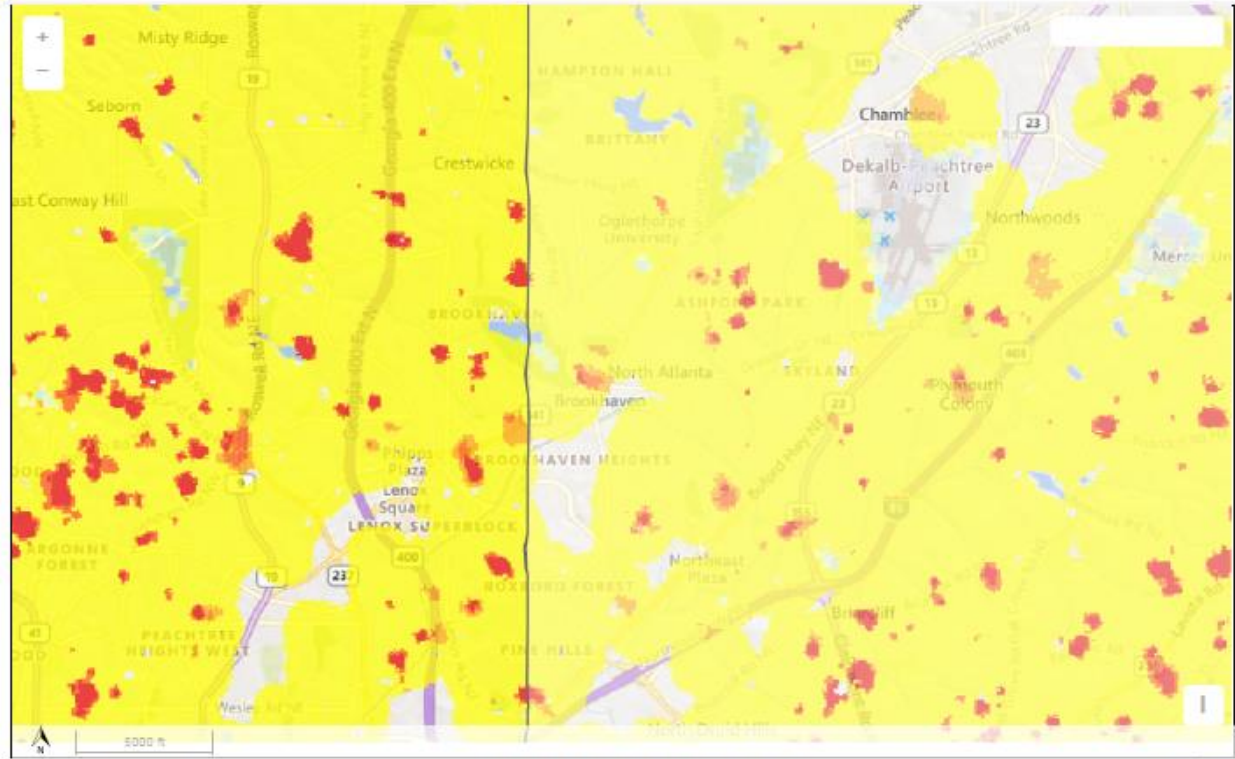


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Map 61: City of Brookhaven WUI Risk Index

### Brookhaven Wildfire Hazard Risk Assessment

Wildland Urban Interface Risk Index



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12/12/2021 - 9:37:58 AM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

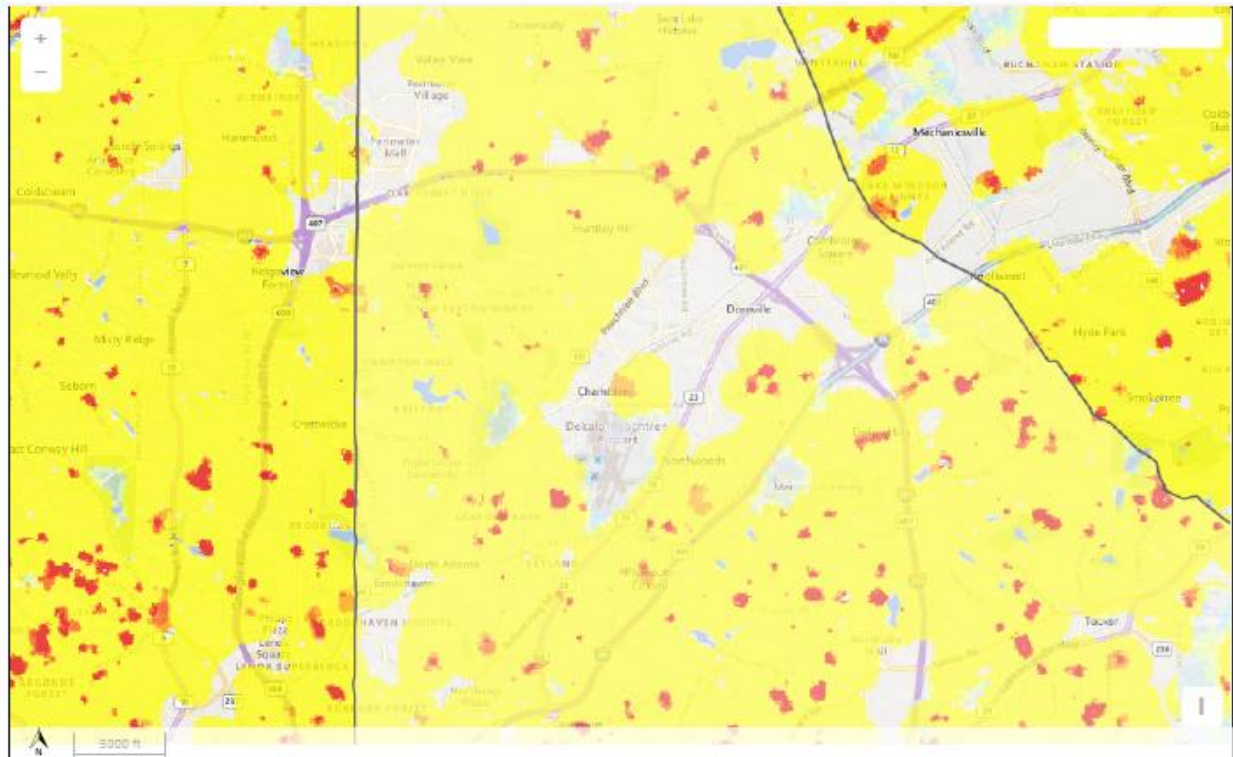




## SECTION 4: RISK ASSESSMENT

Map 62: City of Chamblee WUI Risk Index

### Chamblee Wildfire Risk Assessment Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:41:07 AM

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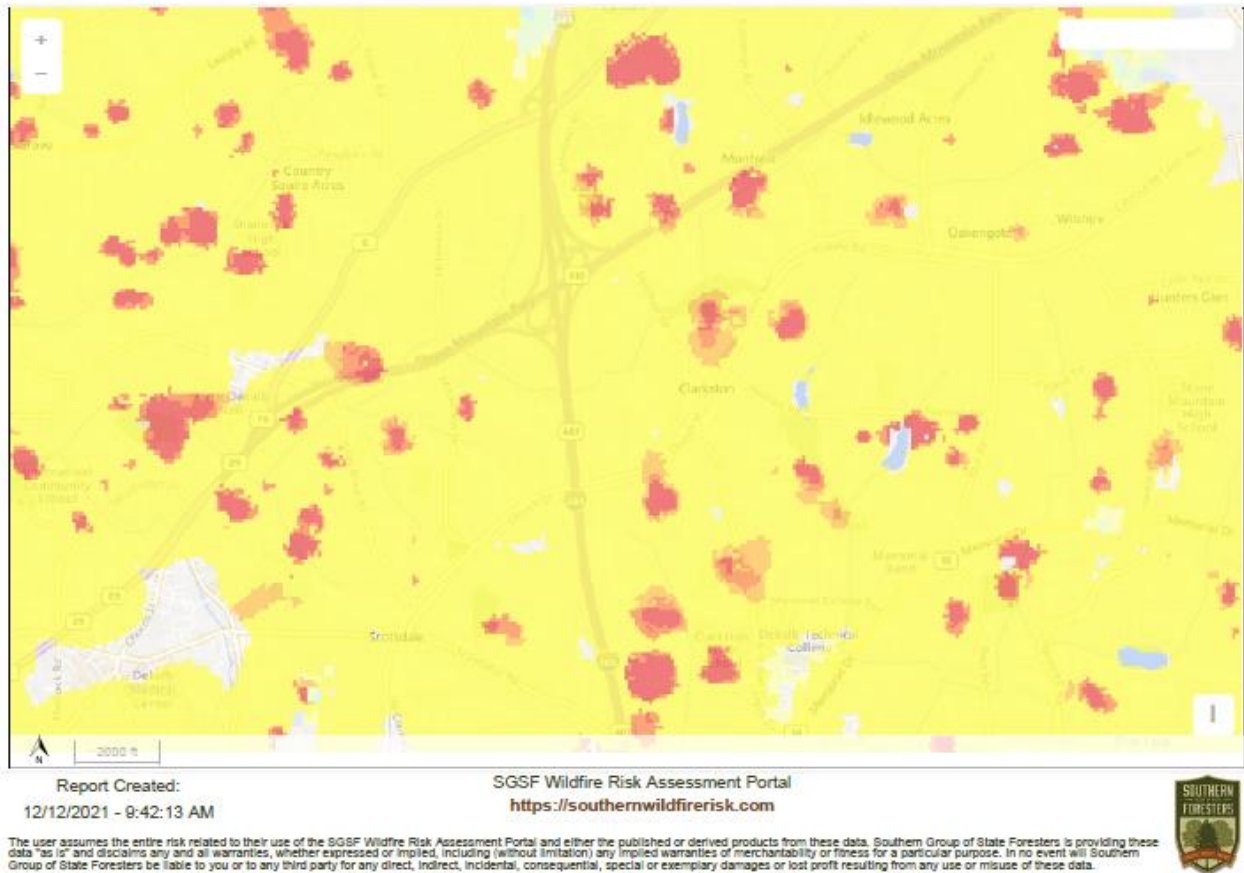
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -6

Map 63: City of Clarkston WUI Risk Index

### Clarkston Wildfire Risk Assessment

Wildland Urban Interface Risk Index



Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

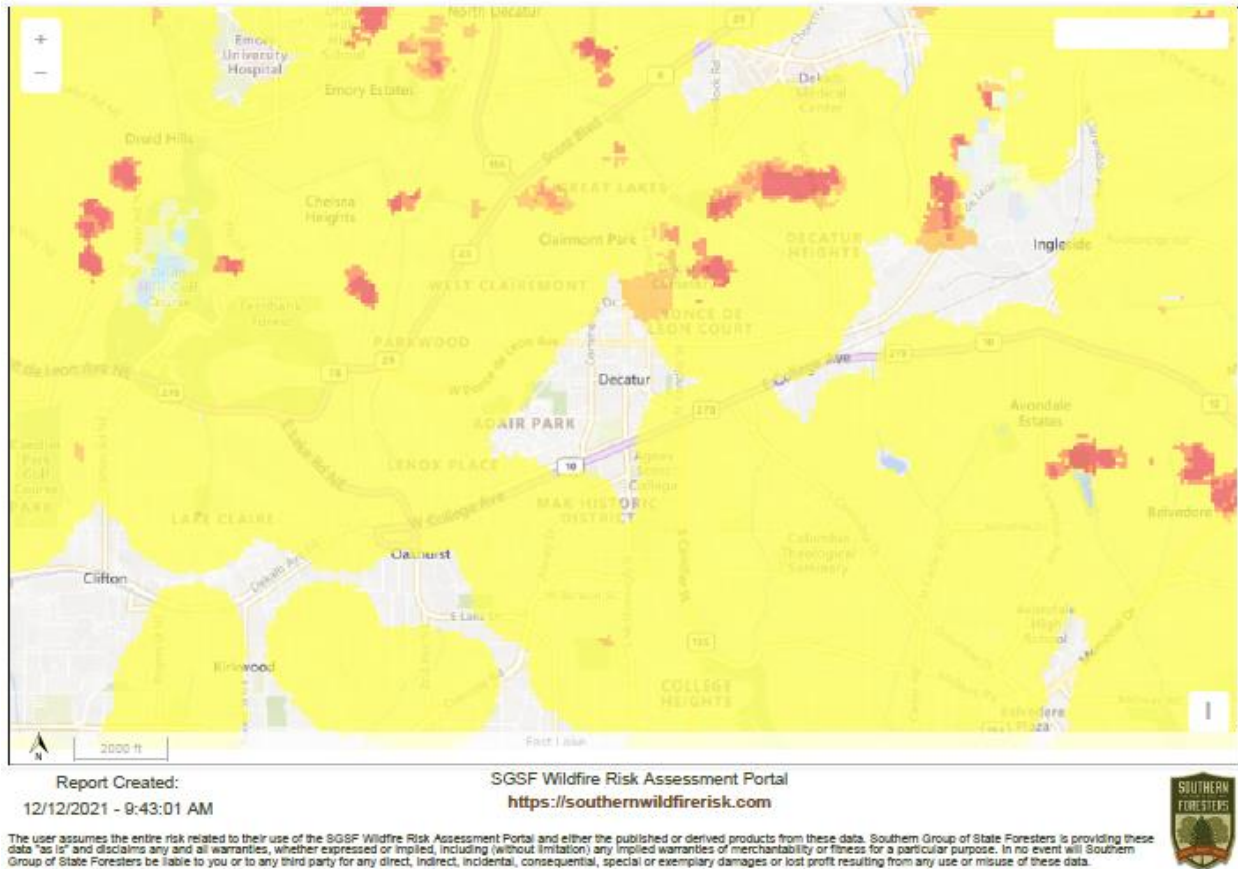
Peak Value: -8



Map 64: City of Decatur WUI Risk Index

### Decatur Wildfire Risk Assessment

Wildland Urban Interface Risk Index



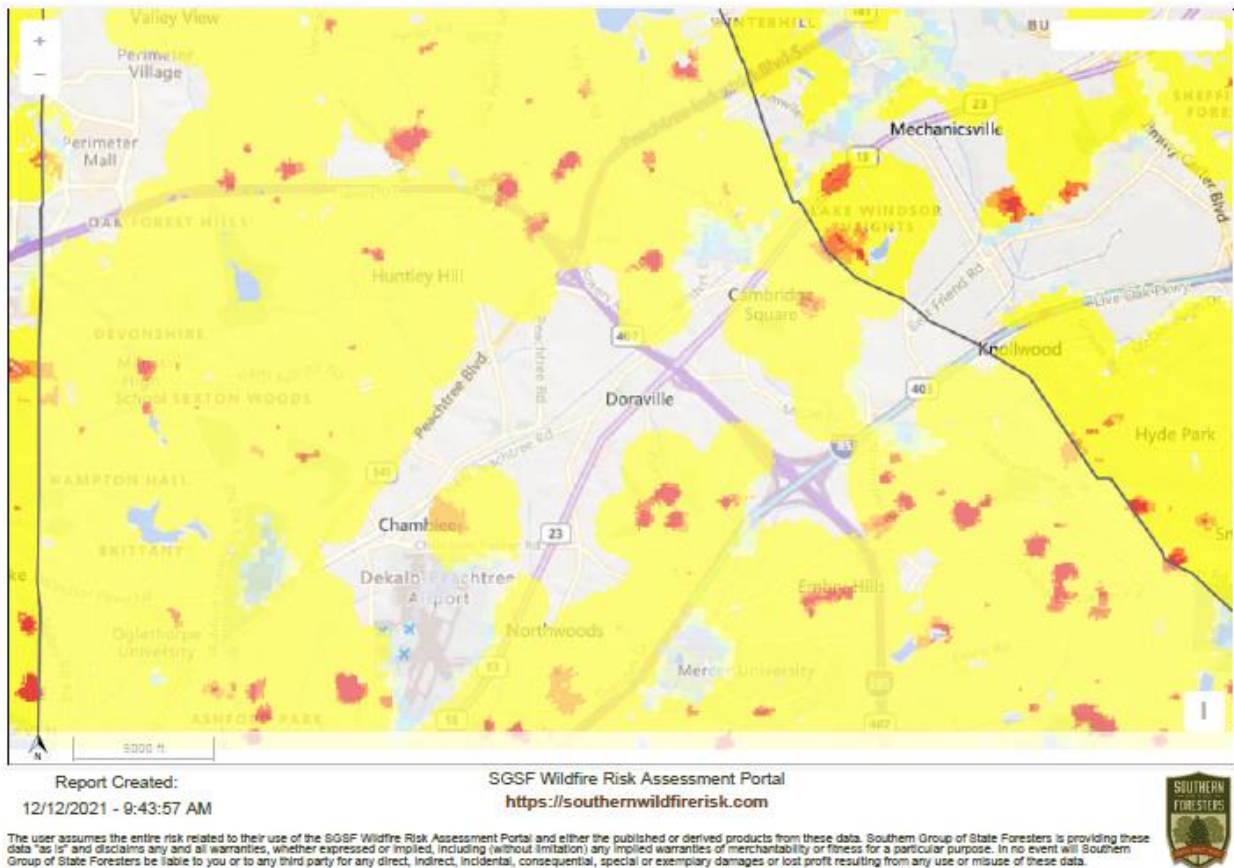
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 65: City of Doraville WUI Risk Index

### Doraville Wildfire Risk Assessment

Wildland Urban Interface Risk Index



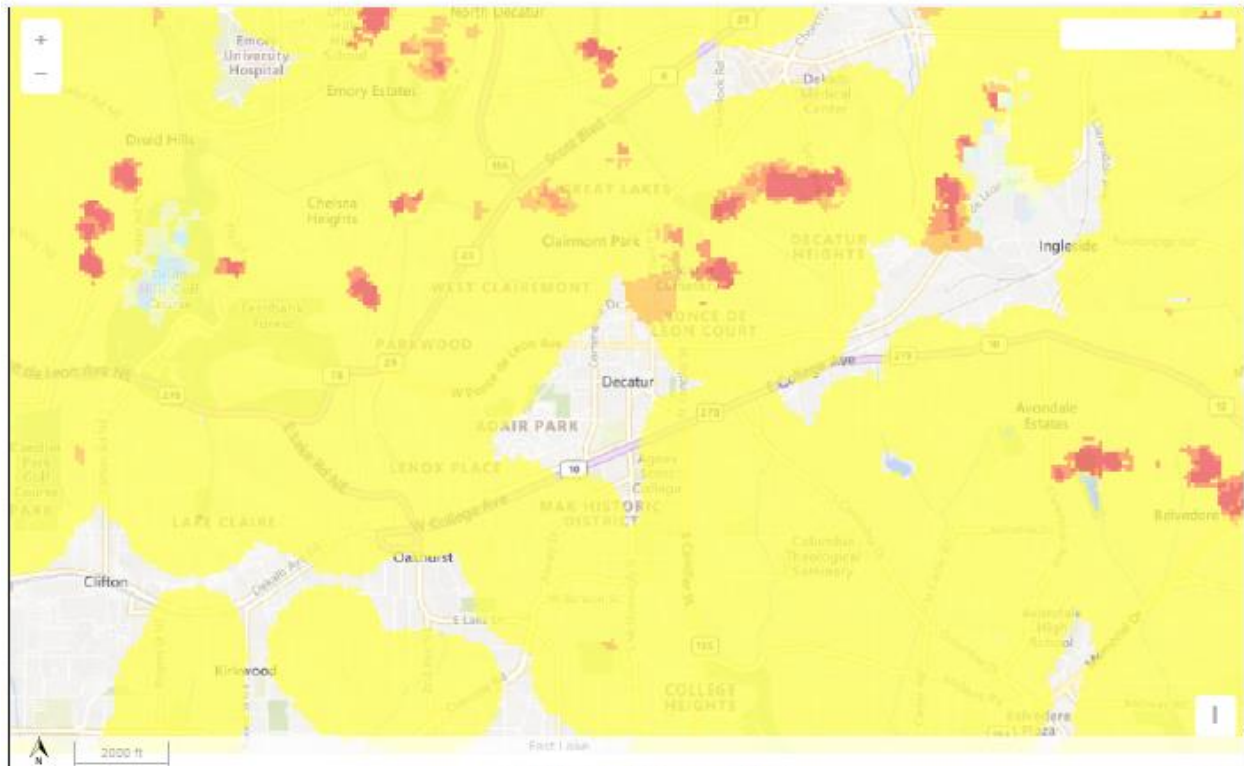
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 66: City of Decatur WUI Risk Index

### Decatur Wildfire Risk Assessment

Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:43:01 AM

SGSF Wildfire Risk Assessment Portal  
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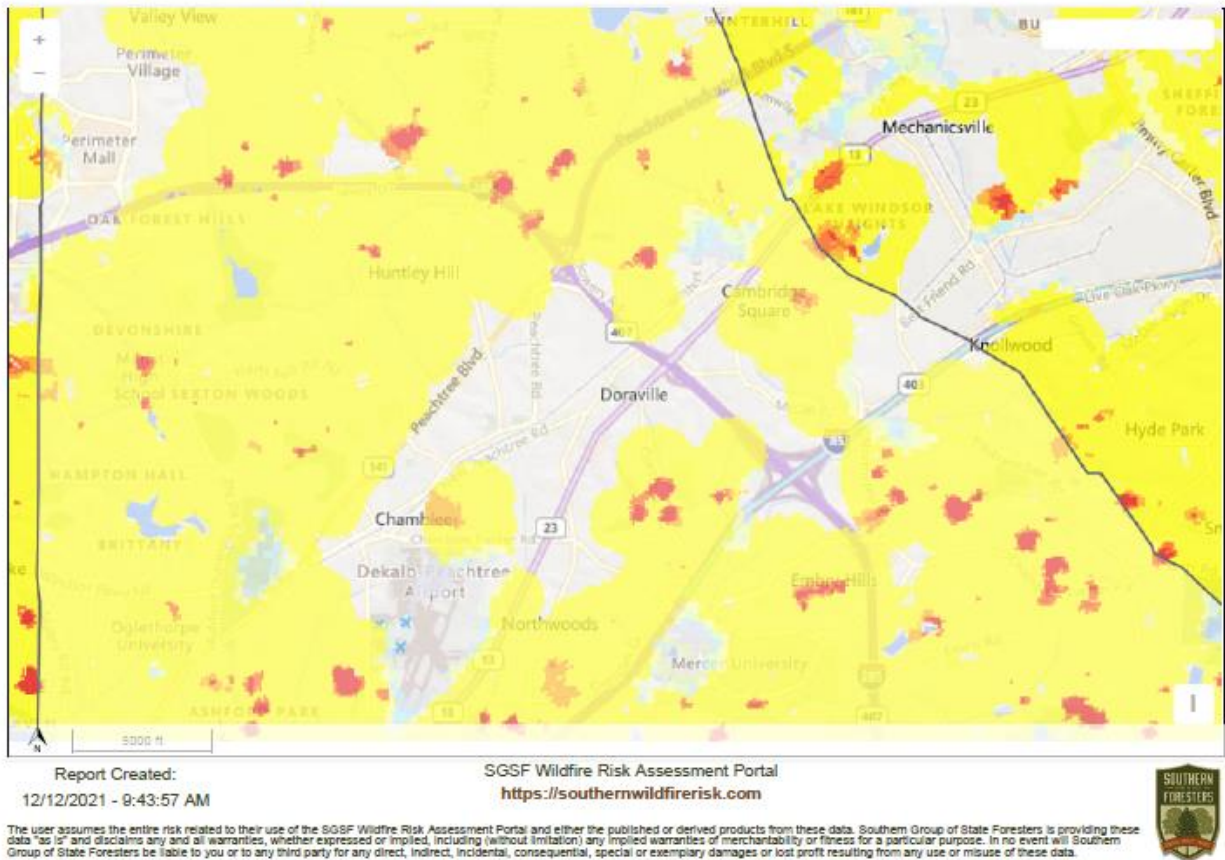
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 67: City of Doraville WUI Risk Index

### Doraville Wildfire Risk Assessment

Wildland Urban Interface Risk Index



Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

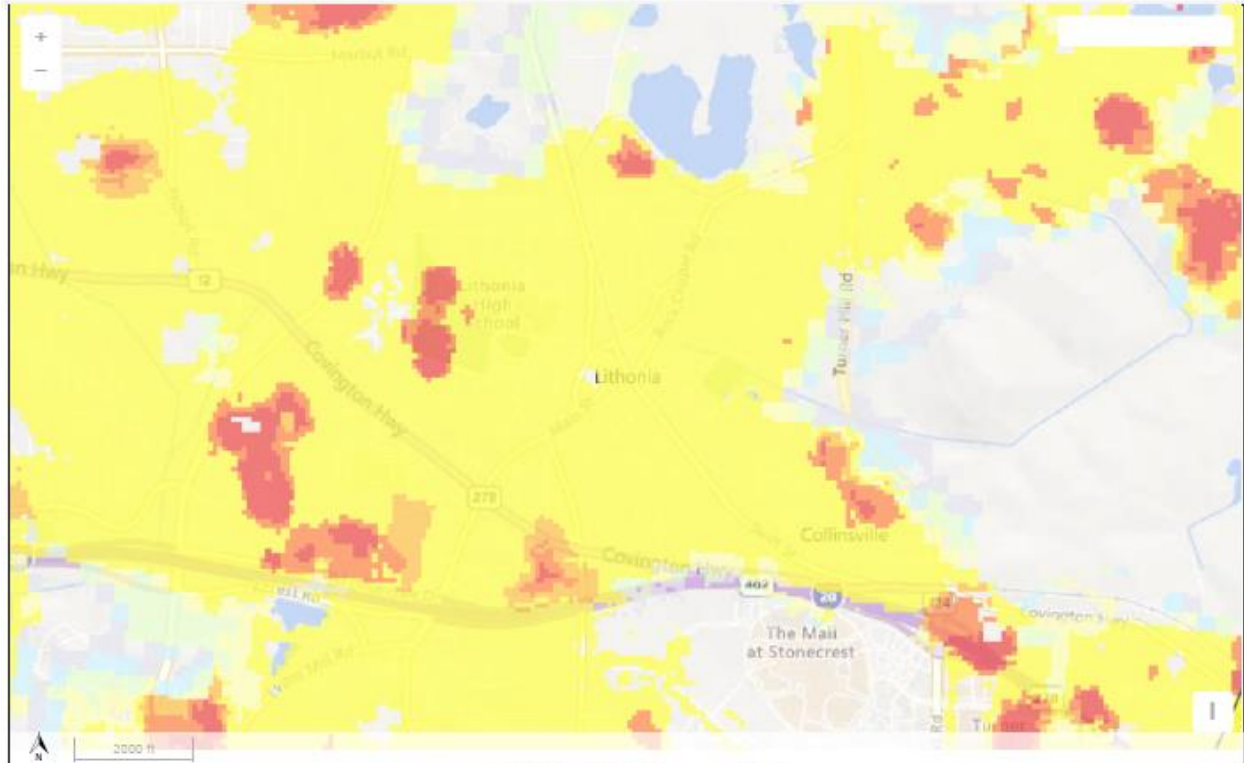
Peak Value: -8



Map 68: City of Lithonia WUI Risk Index

### Lithonia Wildfire Risk Assessment

Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:45:45 AM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal

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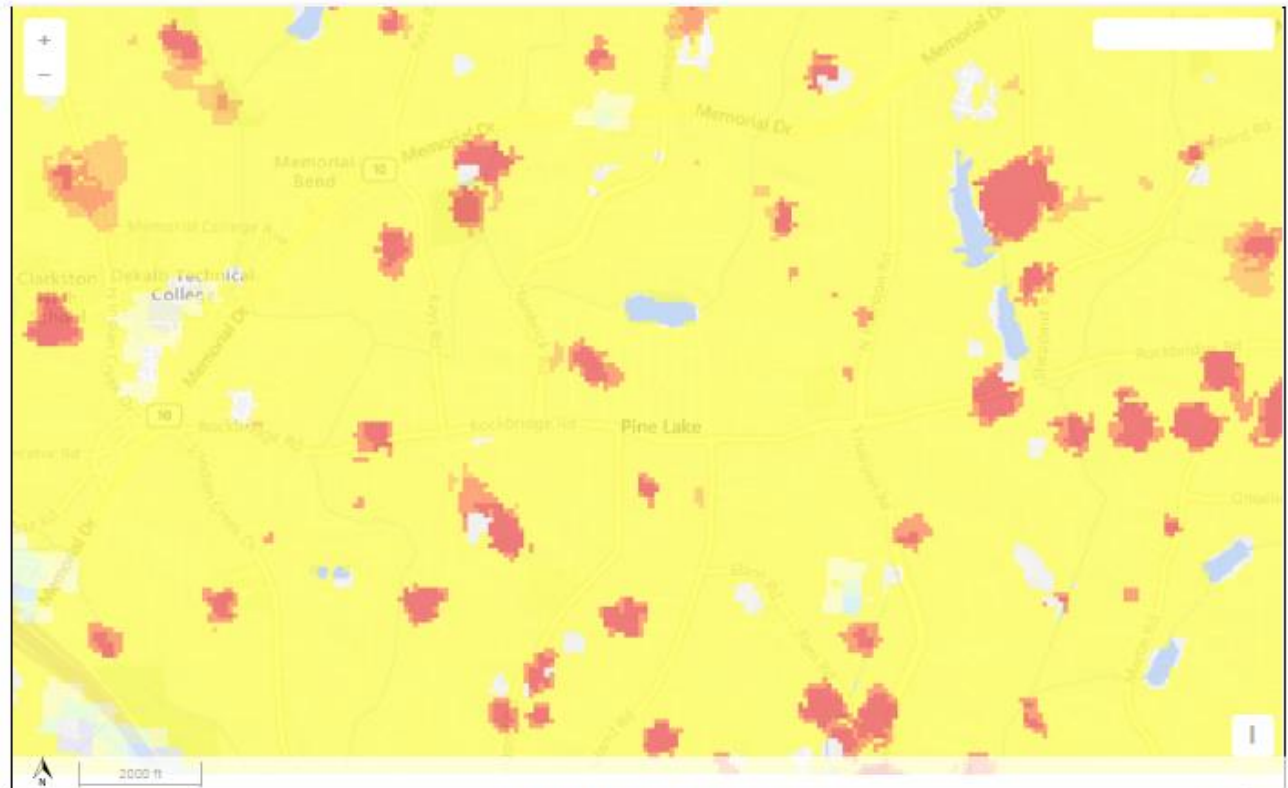
Peak Value: -8



Map 69: City of Pine Lake WUI Risk Index

### Pine Lake Wildfire Hazard Risk Assessment

Wildland Urban Interface Risk Index



Report Created:

12/12/2021 - 9:48:11 AM

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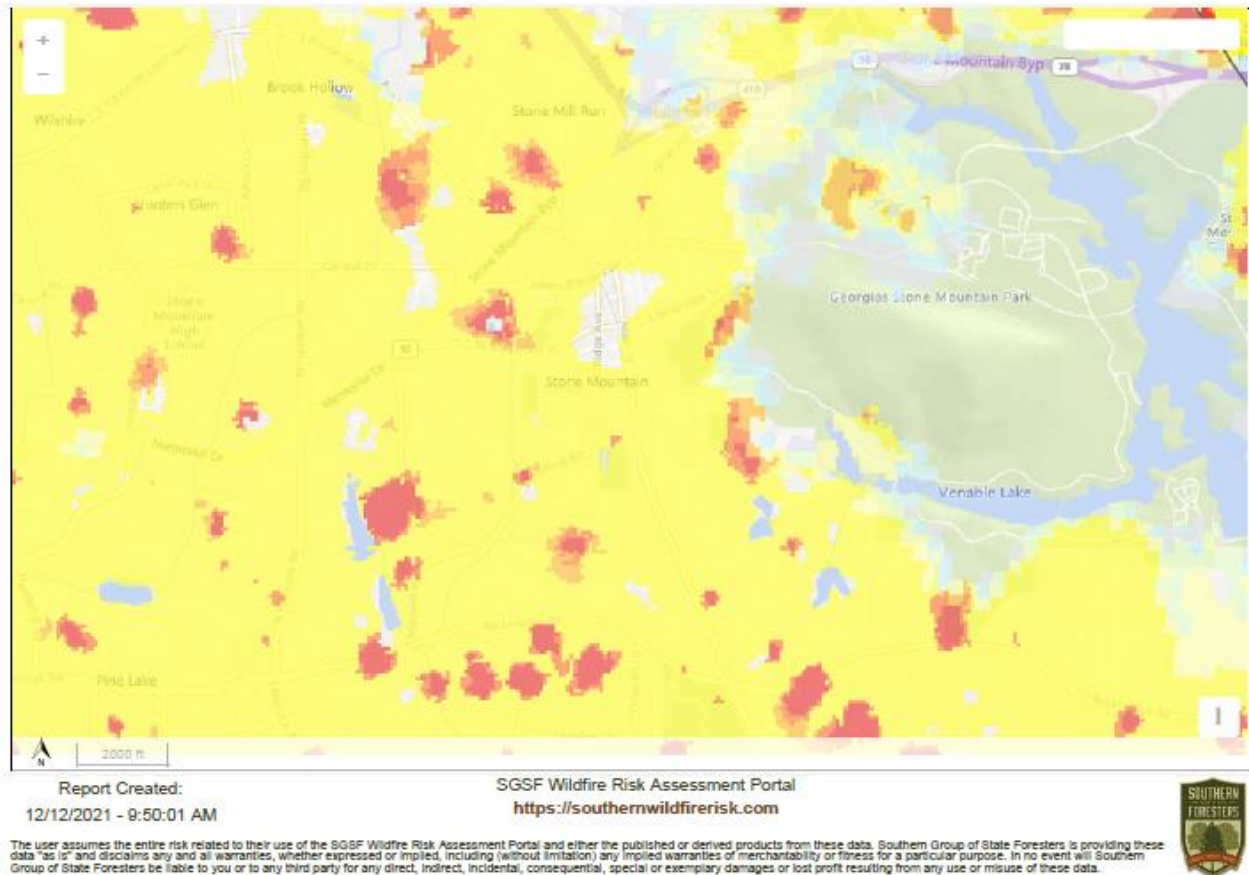
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal

(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 70: City of Stone Mountain WUI Risk Index

### Stone Mountain Wildland Fire Risk Assessment Wildland Urban Interface Risk Index



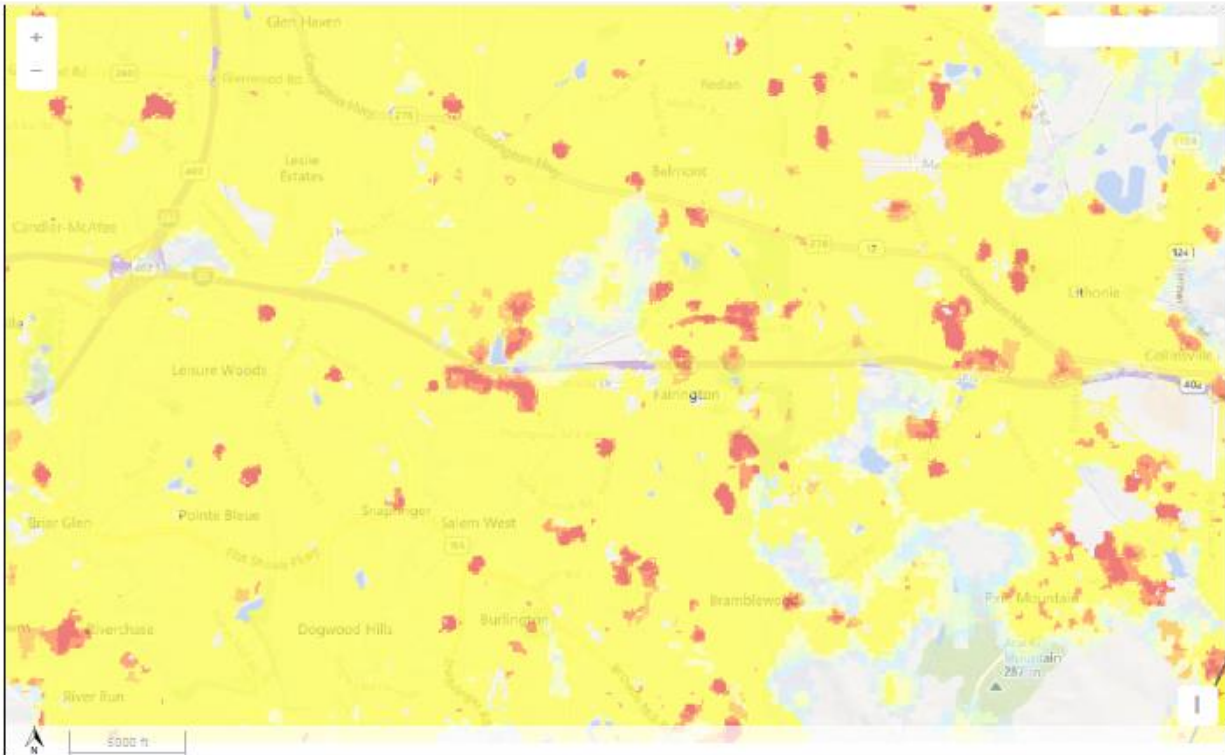
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

Map 71: City of Stonecrest WUI Risk Index

### Stonecrest Wildland Fire Risk Assessment

Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:51:18 AM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8

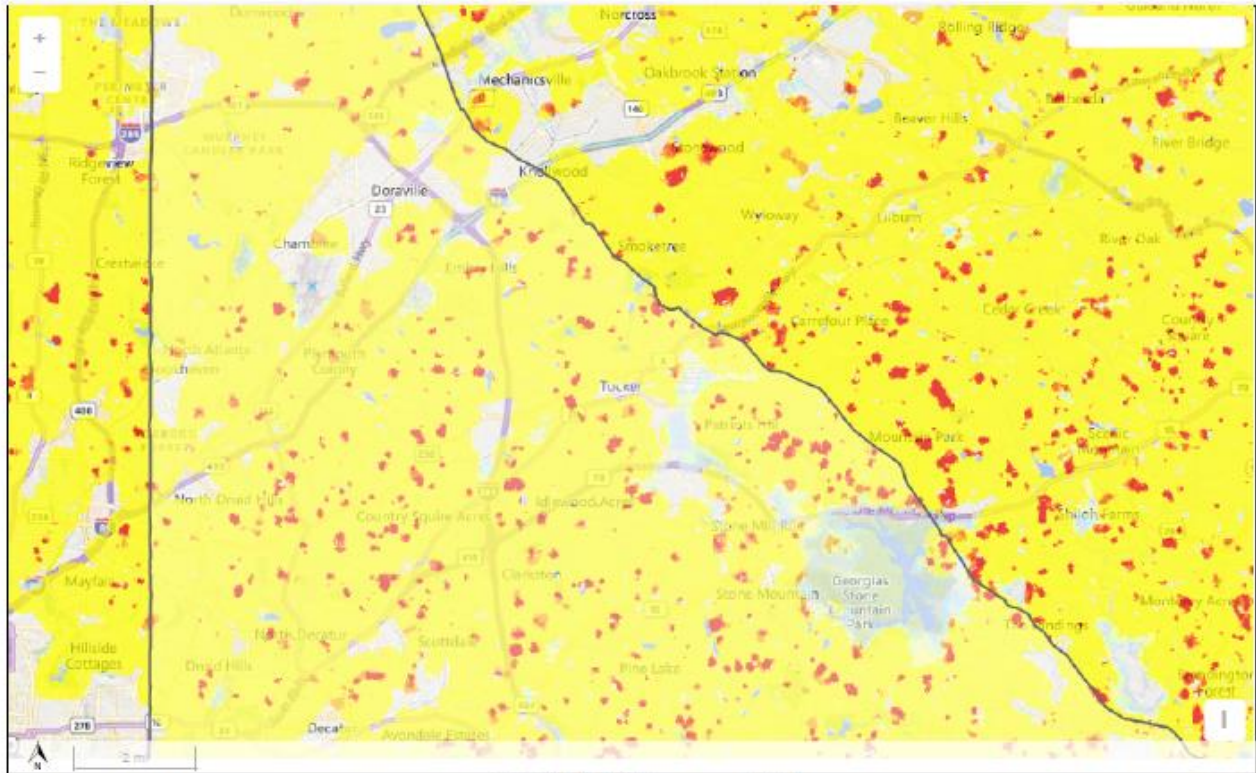




## SECTION 4: RISK ASSESSMENT

Map 72: City of Tucker WUI Risk Index

### Tucker Wildland Fire Risk Assessment Wildland Urban Interface Risk Index



Report Created:  
12/12/2021 - 9:51:56 AM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Peak Value: -8



## SECTION 4: RISK ASSESSMENT

Fire intensity is a measure of the rate of heat (energy) released by a fire. It is directly proportional to the fuel condition, amount, and rate of fuel consumed. Therefore, fuels, weather, and topography are important in determining the rate of heat released by a fire. (<https://ucanr.edu/sites/prepostwildfire/files/2670.pdf>).

The Fire Intensity Scale (FIS) specifically identifies where significant fuel hazards and associated dangerous fire behavior potential exist based on weighted average of four percentile weather categories. Like the Richter Scale for earthquakes, FIS provides a standard scale to measure potential wildfire intensity. FIS consists of five classes where the order of magnitude between classes is ten-fold. The minimum class, Class 1, represents very low wildfire intensities and the maximum class, Class 5, represents very high wildfire intensities. (<https://southernwildfirerisk.com/>)

Table 50: Fire Intensity Scale

Fire Intensity Scale		
Class Number	Category	Description
1	Very Low	Very small, discontinuous flames, usually less than 1 foot in length; very low rate of spread; no spotting. Fires are typically easy to suppress by firefighters with basic training and non-specialized equipment.
1.5		
2	Low	Small flames, usually less than two feet long; small amount of very short-range spotting possible. Fires are easy to suppress by trained firefighters with protective equipment and specialized tools.
2.5		
3	Moderate	Flames up to 8 feet in length; short-range spotting is possible. Trained firefighters will find these fires difficult to suppress without support from aircraft or engines, but dozer and plows are generally effective. Increasing potential for harm or damage to life and property.
3.5		
4	High	Large Flames, up to 30 feet in length; short-range spotting common; medium range spotting possible. Direct attack by trained firefighters, engines, and dozers is generally ineffective, indirect attack may be effective. Significant potential for harm or damage to life and property.
4.5		
5	Very High	Very large flames up to 150 feet in length; profuse short-range spotting, frequent long-range spotting; strong fire-induced winds. Indirect attack marginally effective at the head of the fire. Great potential for harm or damage to life and property.

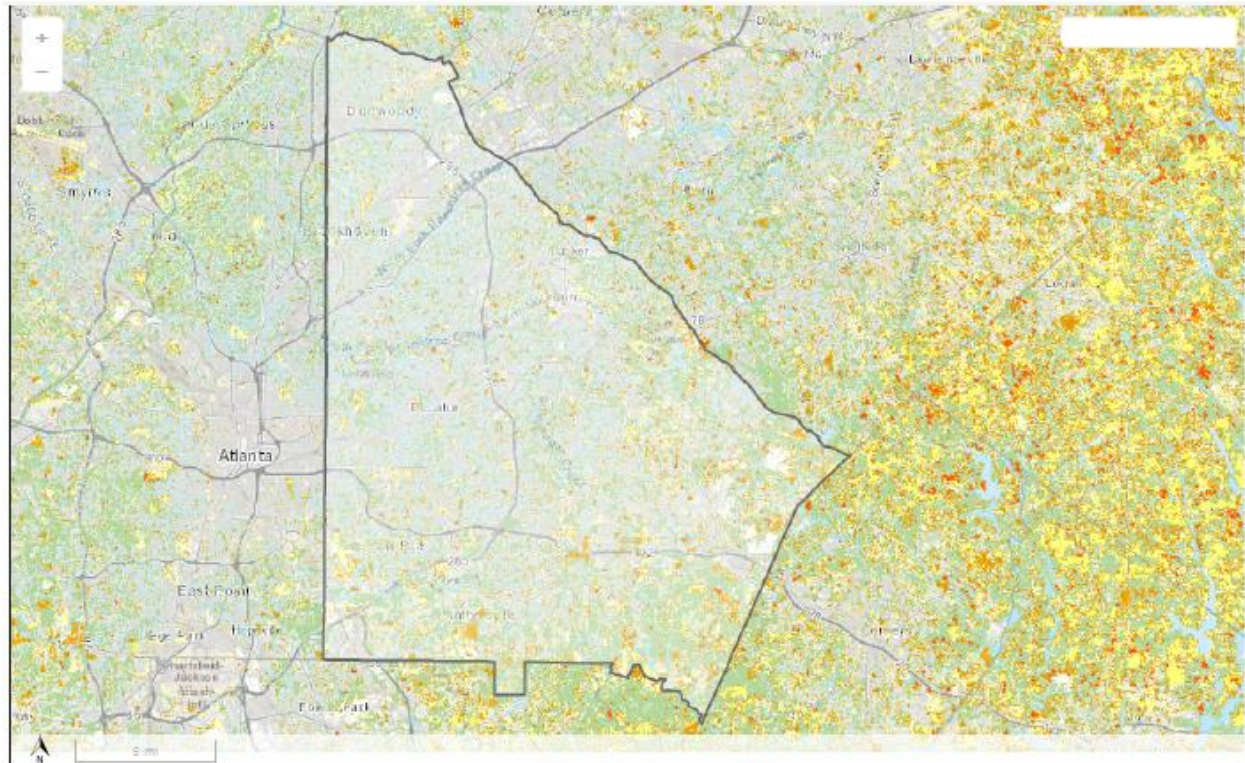
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal (<https://southernwildfirerisk.com/>)



Map 73: DeKalb County Fire Intensity Scale

### DeKalb County Wildfire Hazard Risk Assessment

Fire Intensity Scale



Report Created:

12/10/2021 - 10:38:53 PM

SGSF Wildfire Risk Assessment Portal

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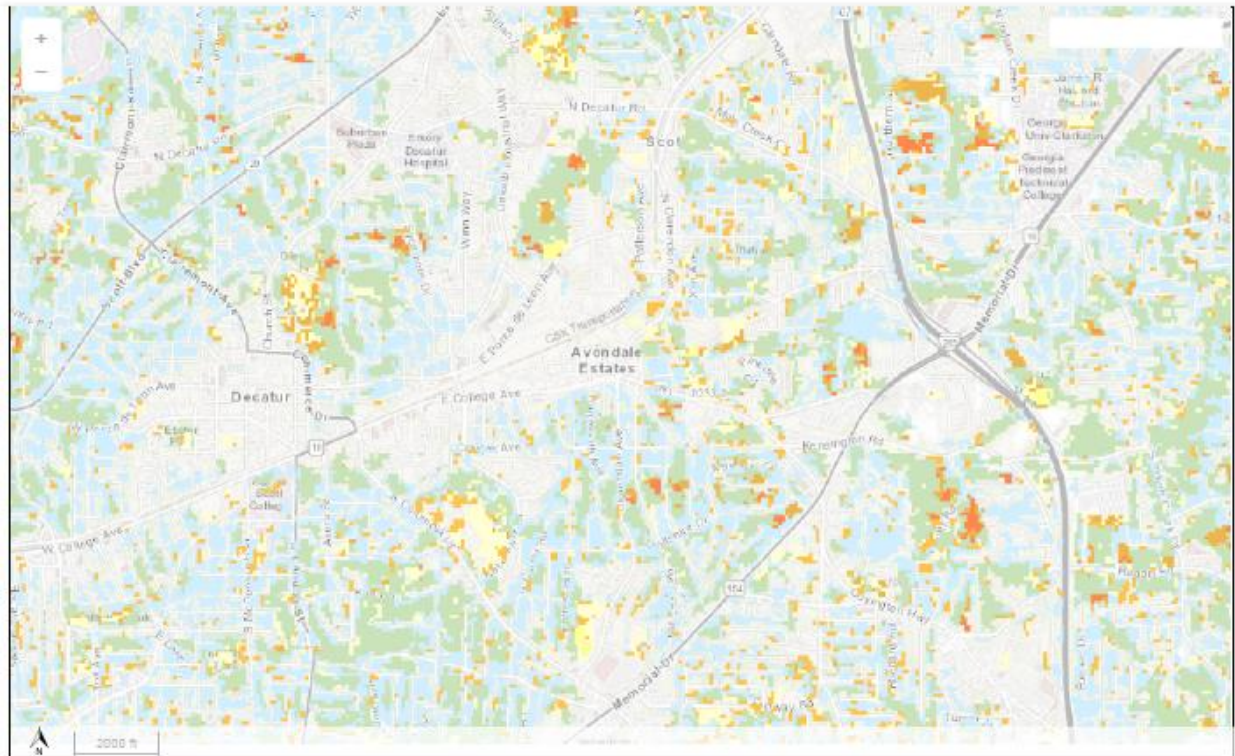


Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Map 74: City of Avondale Estates Fire Intensity Scale

### Avondale Estates Wildfire Risk Assessment

Fire Intensity Scale



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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
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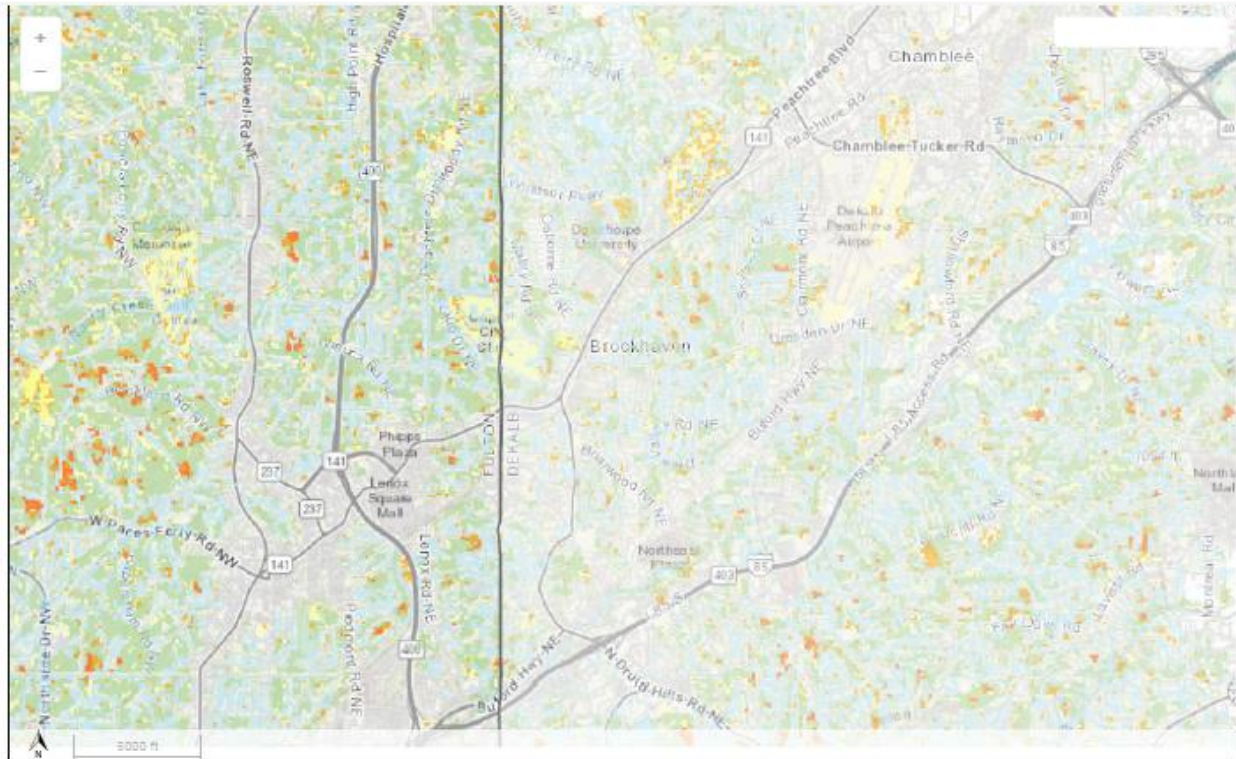


## SECTION 4: RISK ASSESSMENT

Map 75: City of Brookhaven Fire Intensity Scale

### Brookhaven Wildfire Risk Assessment

Fire Intensity Scale



Report Created:  
12/10/2021 - 10:23:38 PM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

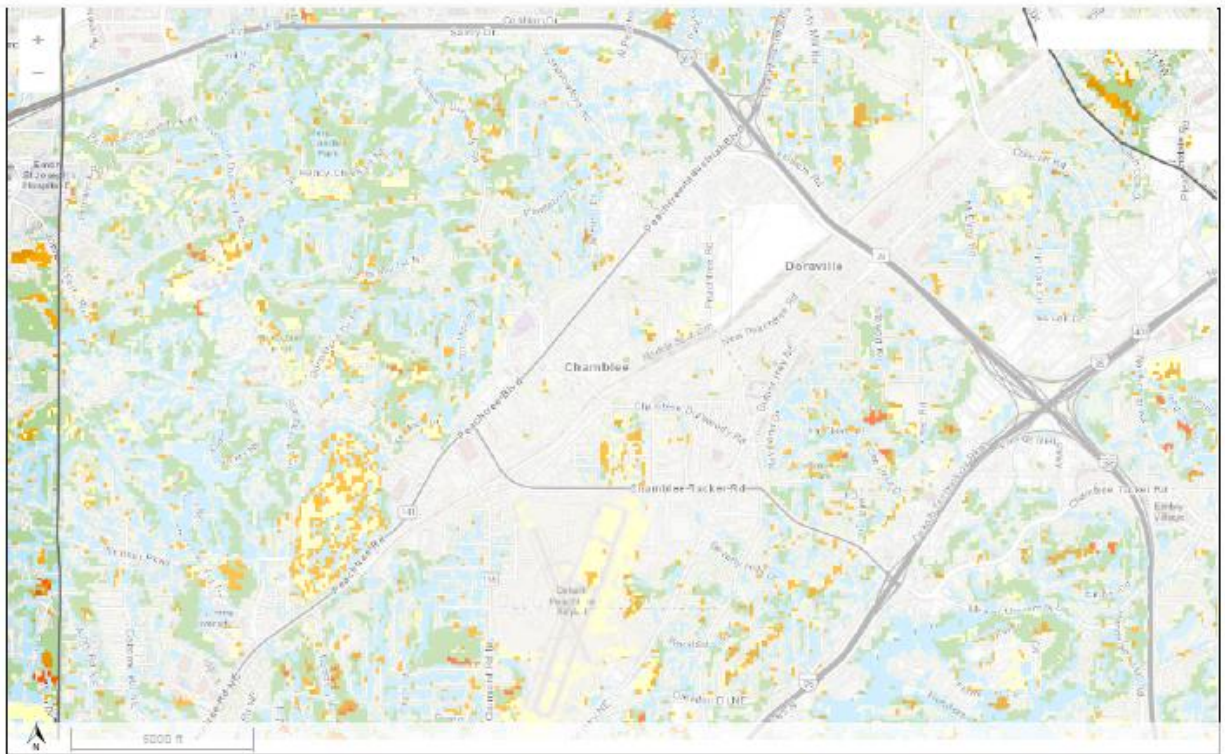


## SECTION 4: RISK ASSESSMENT

Map 76: City of Chamblee Fire Intensity Scale

### Chamblee Wildfire Risk Assessment

Fire Intensity Scale



Report Created:

12/10/2021 - 10:24:31 PM

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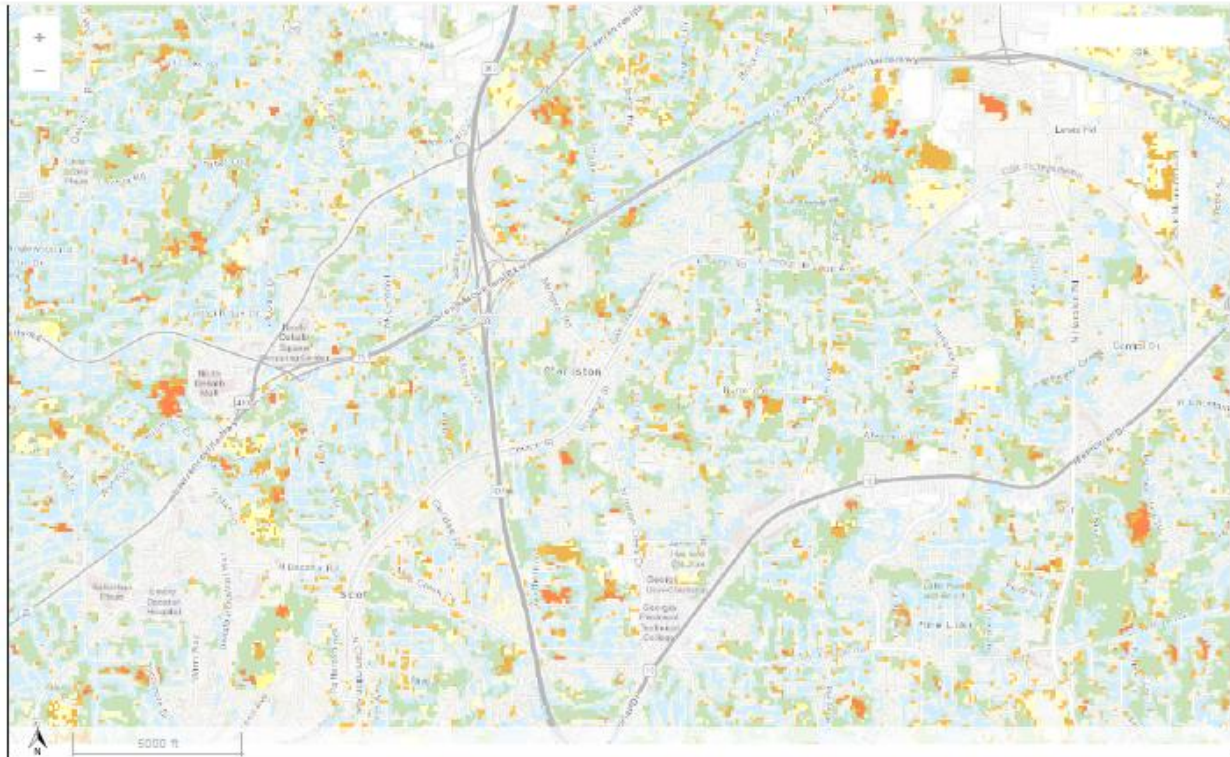
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



Map 77: City of Clarkston Wildfire Fire Intensity Scale

### Clarkston Wildfire Risk Assessment

Fire Intensity Scale



Report Created:  
12/10/2021 - 10:25:04 PM

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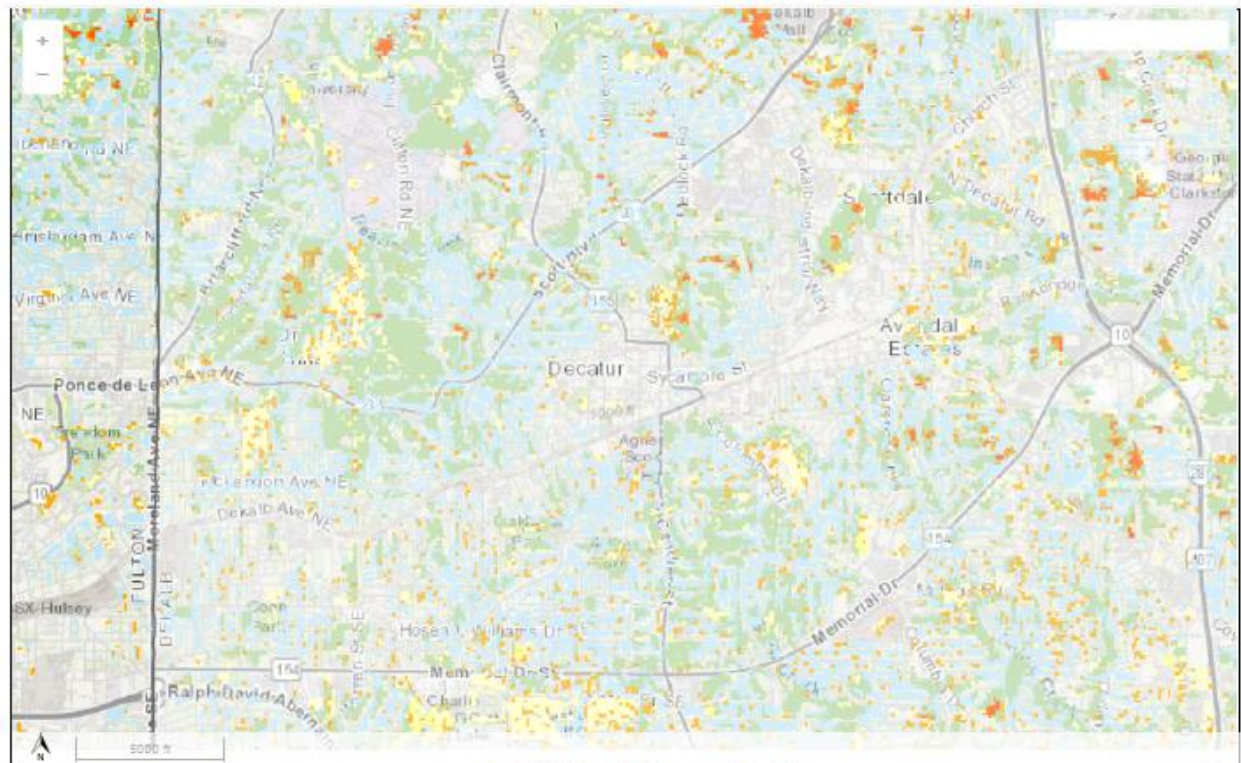
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



Map 78: City of Decatur Fire Intensity Scale

### Decatur Wildfire Risk Assessment

Fire Intensity Scale



Report Created:  
12/10/2021 - 10:25:45 PM

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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



## SECTION 4: RISK ASSESSMENT

Map 79: City of Doraville Fire Intensity Scale

### Doraville Wildfire Risk Assessment Fire Intensity Scale



Report Created:  
12/10/2021 - 10:28:15 PM

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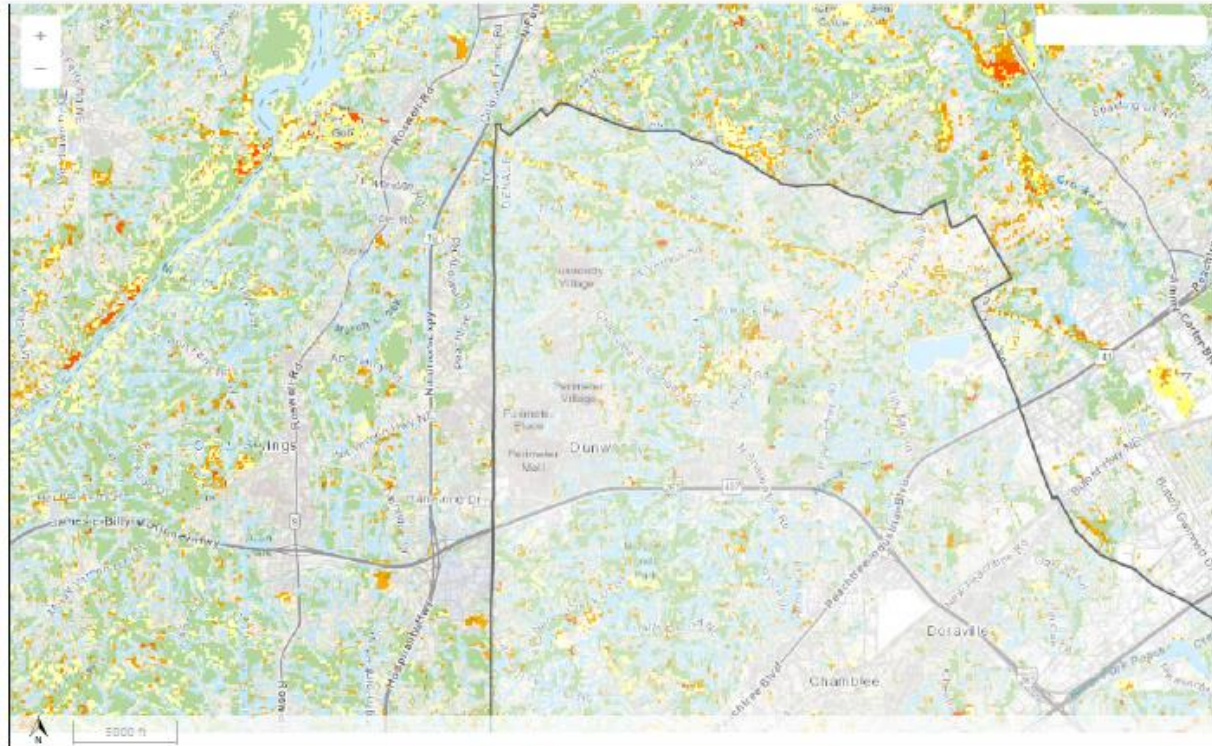
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



Map 80: City of Dunwoody Fire Intensity Scale

### Dunwoody Wildfire Risk Assessment

Fire Intensity Scale



Report Created:

12/10/2021 - 10:28:55 PM

SGSF Wildfire Risk Assessment Portal  
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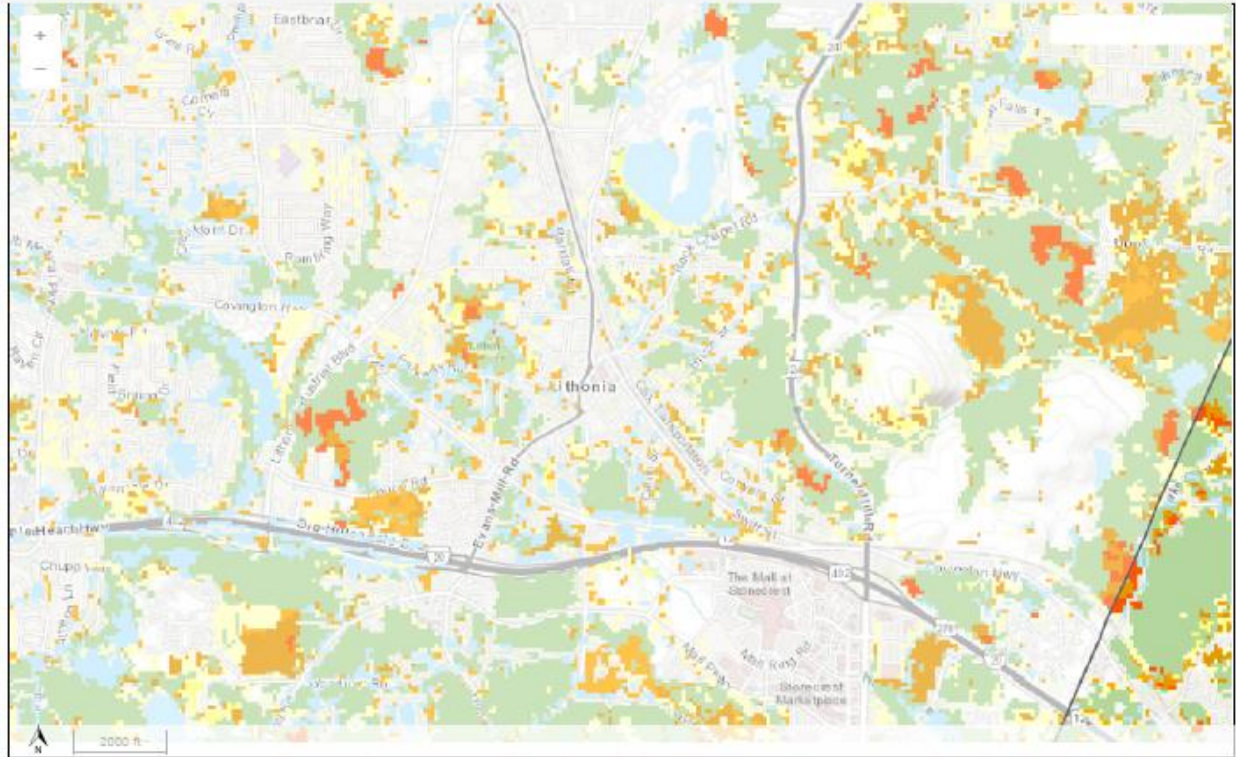
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Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
[\(https://southernwildfirerisk.com/\)](https://southernwildfirerisk.com/)

Map 81: City of Lithonia Fire Intensity Scale

### Lithonia Wildfire Risk Assessment

Fire Intensity Scale



Report Created:  
12/10/2021 - 10:27:42 PM

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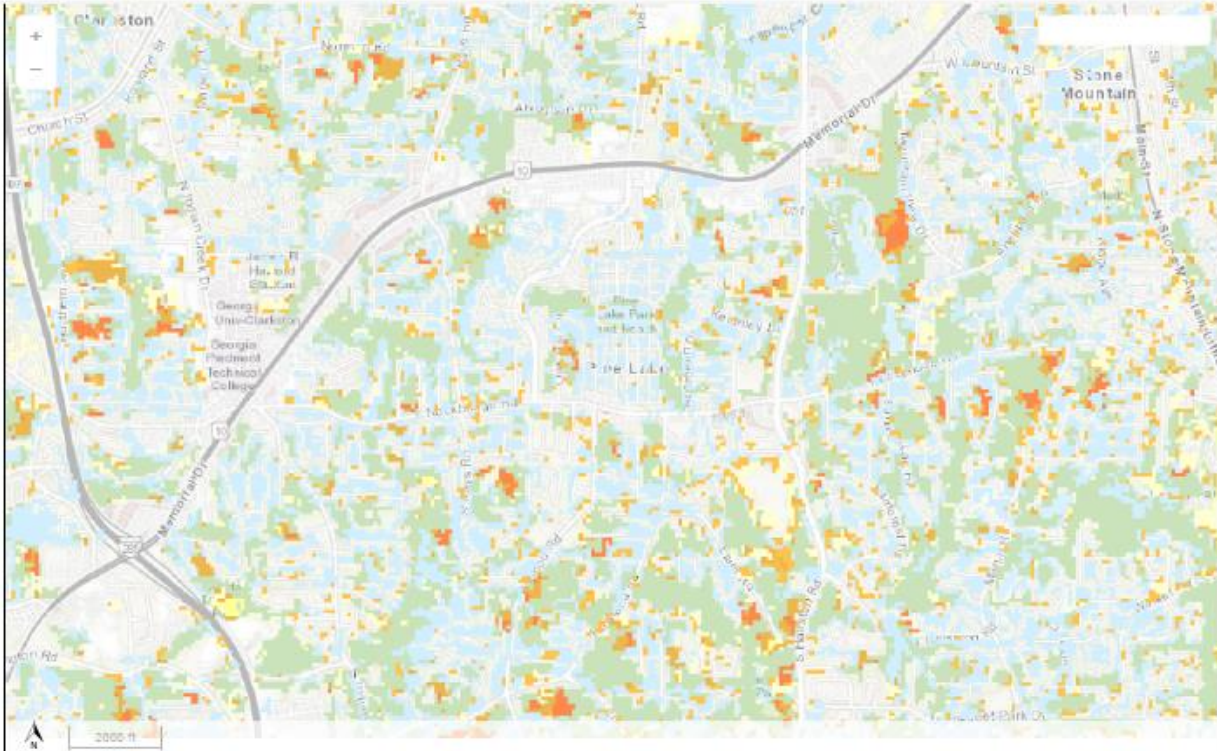
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



Map 82: City of Pine Lake Fire Intensity Scale

### Pine Lake Wildfire Risk Assessment

Fire Intensity Scale



Report Created:  
12/10/2021 - 10:29:40 PM

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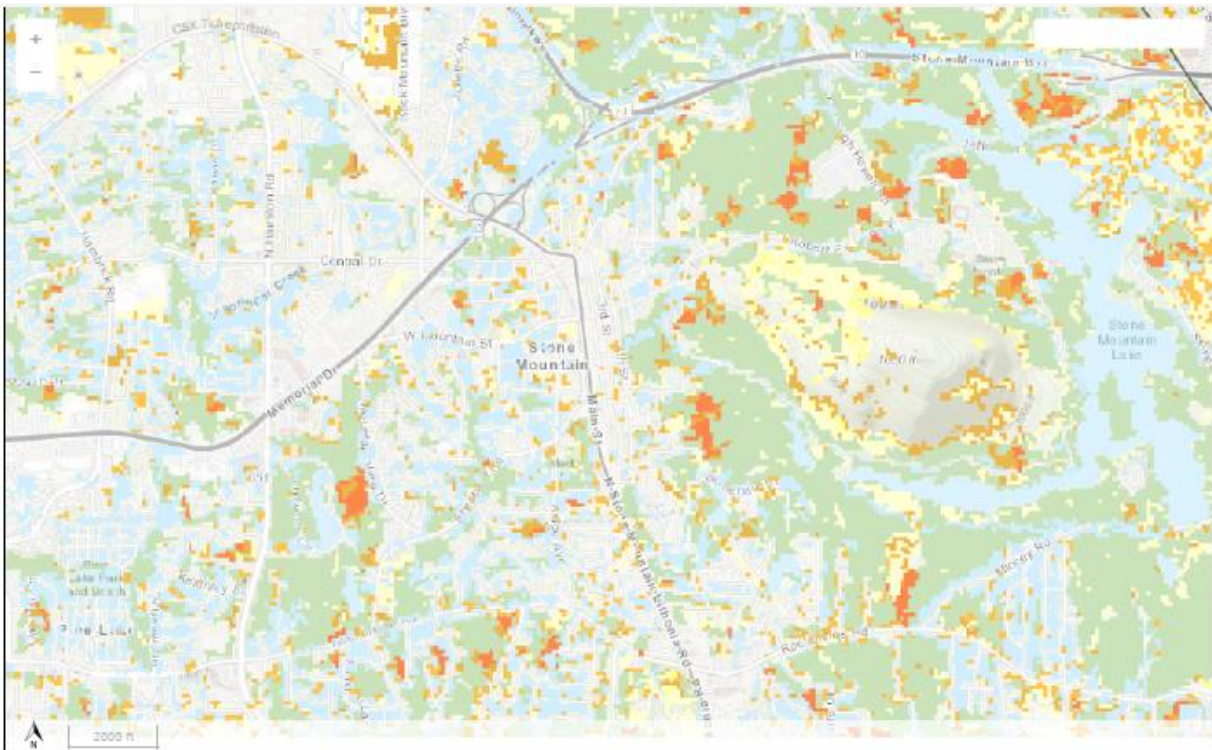
Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)



Map 83: City of Stone Mountain Fire Intensity Scale

### Stone Mountain Wildfire Risk Assessment

Fire Intensity Scale



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12/10/2021 - 10:30:25 PM

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**Data Source:** Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)

Map 84: City of Stonecrest Fire Intensity Scale

### Stonecrest Wildfire Risk Assessment Fire Intensity Scale

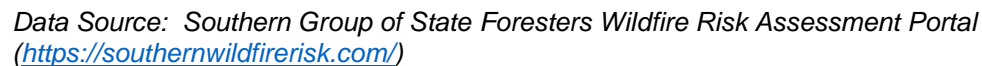


Data Source: Southern Group of State Foresters Wildfire Risk Assessment Portal  
(<https://southernwildfirerisk.com/>)





## Tucker Wildfire Risk Assessment



## Wildfire Events

Wildfire Events (2016-2020)					
Date of Event	Number of Incidents	Acres Burned	Number of Responding Units	Number of Personnel Responded	Total Man Hours
2010-11	0	0	0	0	0
2012	26	60	67	184	345
2013-14	-	14	64	163	209
2015-17	0	0	0	0	0



## SECTION 4: RISK ASSESSMENT

Wildfire Events (2016-2020)					
Date of Event	Number of Incidents	Acres Burned	Number of Responding Units	Number of Personnel Responded	Total Man Hours
2018	6	17.5	30	86	390.75
2019	31	46	120	486	31
2020	7	12.5	32	79	189
<b>Total</b>	<b>70</b>	<b>150</b>	<b>313</b>	<b>998</b>	<b>1164.75</b>

Data Source: DeKalb County Fire Rescue

### 4.7.3A – Probability of Future Events

Table 52: Probability of Future Events, Wildfire

Probability of Future Events, Wildfire	
Decade	Number of Events
2010s	63
2020	7
<b>Total</b>	<b>70</b>
<b>Years</b>	<b>11</b>
<b>Average</b>	<b>6.36</b>
<b>Likelihood of a Wildfire Event Each Year = 636%</b>	

Data Source: NOAA/NCEI Storm Events Database

Based on this data, it is **highly likely** a wildfire event will occur every year in DeKalb County and the incorporated jurisdictions within its boundaries. FEMA's National Risk Index (NRI) estimates that DeKalb County has a 0.003% chance of experiencing a wildfire event every year.

### 4.7.4 – Vulnerability of Community Assets

#### Vulnerability of People

Wildfires also generate dense smoke that can affect air quality and pose a serious health risk. This is especially true for the elderly or those, young and old, who have breathing conditions such as asthma or Chronic Obstructive Pulmonary Disorder (COPD). Experts agree that smoke inhalation is the number one cause of death related to fires.

#### Vulnerability of the Economy

Wildfires may have direct and indirect impacts on DeKalb County's economy. Major employers and industries located in the WUI are at an increased risk for exposure to wildfires. Their facilities and resources are subject to loss if impacted by a wildfire. Functional downtime and lost wages because of wildfire impacts to major employers can cause impact people and the tax base. Farms in the WUI may suffer crop, livestock, structure, and equipment losses.



### Vulnerability of the Built Environment

The “boundary” WUI is characterized by areas of development where critical facilities, homes, cultural resources, and infrastructure press against public and private wildlands, such as private or commercial forest land, or public forests or parks. There is a clearly defined boundary between the suburban fringe and the rural countryside. WUI areas deemed as “intermix” are places where improved property and/or structures are scattered and interspersed in wildland areas. These may be isolated rural homes or an area that is just starting to transition from rural to urban land use. “Island” WUI areas, also called occluded interface, are plots of undeveloped wildland, such as remnant forests and parks, within predominately urban or suburban locales.

### Vulnerability of Natural Environment

The natural environment is highly vulnerable to wildland fire impacts. Wildland fires increase the potential for flooding, debris flows, and landslides. Smoke can cause significant air pollution. In the short-term, wildfires can destroy timber, forage, wildlife habitats, and watersheds. In the long-term, wildfires can reduce access to recreational areas, which can also impact the economy.

#### 4.7.5 – Risk Analysis

FEMA’s National Risk Index (NRI) estimates that DeKalb County and the jurisdictions which lie within its boundaries have 467 people, \$57,902,948 worth of structures, and \$2,680 worth of agriculture are exposed to wildfire hazard impacts each year. The NRI projects annual losses of 0 people, \$1,164 worth of structures, and \$0 worth of agriculture to wildfire hazard impacts each year.

Table 53: Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Search and Rescue	<b>Moderate Risk.</b> Impacts may:





## SECTION 4: RISK ASSESSMENT

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>injure personnel</li> <li>damage facilities and equipment</li> <li>disrupt responder communications</li> <li>damage or block transportation routes</li> <li>expend resources</li> </ul>
	Government Services	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage critical facilities and historical sites</li> <li>disrupt communications to emergency operations centers</li> <li>disrupt essential government functions</li> <li>cause short-term or long-term school cancellations.</li> </ul>
	Community Safety	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>create secondary hazards (flooding, debris flows, landslides)</li> </ul>
<b>Food, Water, Shelter</b>	Food	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>disrupt commercial food distribution and supply chains</li> <li>affect commercial and home perishable food supplies</li> </ul>
	Water	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>generate secondary hazards which can contaminate drinking water systems</li> <li>damage wastewater systems</li> </ul>
	Shelter	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage homes</li> <li>damage shelters</li> <li>damage lodging facilities</li> </ul>
	Agriculture	<b>High Risk.</b> Impacts may:



## SECTION 4: RISK ASSESSMENT

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>injure livestock</li> <li>damage crops</li> <li>damage farm structures and equipment</li> </ul>
Health and Medical	Medical Care	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>damage hospitals, pharmacies, long-term care facilities, and veterinary clinics</li> <li>disrupt communications</li> <li>contaminate water supply, affecting the provision of care</li> <li>expend resources</li> </ul>
	Patient Movement	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>damage facilities and equipment</li> <li>disrupt responder communications</li> <li>damage or block transportation routes</li> <li>expend resources</li> </ul>
	Public Health	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>create dangerous air quality</li> <li>damage facilities</li> <li>disrupt communications</li> <li>expend resources</li> </ul>
	Fatality Management	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources</li> <li>damage facilities and equipment</li> <li>disrupt communications</li> </ul>
	Medical Supply Chain	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li></li> </ul>



## SECTION 4: RISK ASSESSMENT

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"><li>• expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li><li>• damage or block transportation routes</li></ul>
Energy	Power (Grid)	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage generation systems</li><li>• damage transmission systems</li><li>• damage distribution systems</li></ul>
	Fuel	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage fuel storage resources</li><li>• damage pipelines</li><li>• damage fuel distribution locations</li></ul>
Communications	Infrastructure	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage or cause wireless systems to become overburdened</li><li>• damage cable and wireline systems</li><li>• damage or disrupt broadcast and satellite systems</li><li>• damage or cause internet systems to become overburdened</li></ul>
	Alerts, Warnings, and Messages	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage physical warning systems</li><li>• disrupt the delivery of emergency alerts and warnings</li></ul>
	911 and Dispatch	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage public safety answering points or dispatch centers</li><li>• damage communication systems</li><li>• overburden communication systems</li></ul>



## SECTION 4: RISK ASSESSMENT

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
	Responder Communications	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage communication systems</li> <li>• overburden communication systems</li> </ul>
	Finance	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage banking facilities and equipment</li> <li>• disrupt communications</li> </ul>
Transportation	Highway/Roadway	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or block roads and bridges</li> </ul>
	Mass Transit	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage buses or trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Railway	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage freight or passenger trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Aviation	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage airports</li> <li>• damage aircraft</li> <li>• delay routes</li> </ul>
	Maritime	<b>No Risk.</b>
Hazardous Materials	Facilities	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate oil/hazardous materials/toxic incidents from fixed facilities</li> <li>• damage facilities</li> <li>• disrupt power supply to facilities</li> </ul>
	Hazmat, Pollutants, Contaminants	<b>Low Risk.</b> Impacts may:



## SECTION 4: RISK ASSESSMENT

Risk Analysis of Community Lifeline Systems to Wildfire, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>generate oil/hazardous materials/toxic incidents from non-fixed facilities, rail, and roadways</li> </ul>

### 4.7.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
WF1	<b>Wildfire and people</b> The Wildfire Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that 467 people are exposed to hazard impacts each year.	Many people in DeKalb County live in areas where human development meets or intermingles with undeveloped wildland. This increases the wildfire risk for people living in DeKalb County and exposes them to dangers associated with wildfires. Wildfire smoke may also generate smoke that can affect air quality. This poses a serious health risk to the elderly, the young, and people with breathing conditions.
WF 2	<b>Wildfire and people</b> The Wildfire Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that \$2,680 work of agriculture are exposed to wildfire hazard impacts each year.	Some businesses and farms are in areas where human development meets or intermingles with undeveloped wildland. This increases the risk to crop, livestock, structures, production, wages, and equipment losses.
WF3	<b>Wildfire and built environment</b> The Wildland Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that \$57,902,948 worth of structures are exposed to wildfire hazard impacts each year.	Some critical facilities, homes, cultural resources, and infrastructure are in areas where human development meets or intermingles with undeveloped wildland. FEMA's National Risk Index (NRI) projects \$1,164 work of structure losses each year due to wildfire hazard impacts. A major wildfire may cause much more damage.





## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
WF4	<b>Wildfire and natural environment</b> The Wildland Urban Interface (WUI) Index is high in many areas of DeKalb County.	DeKalb County consists of numerous natural resources which may be exposed to wildfires.	A major wildfire may destroy parts of DeKalb County's natural environment and cause secondary hazards such as flooding, debris flows, and landslides. This may impact DeKalb County's people, economy, and build environment.



### 4.8(E) – Earthquake

*Photo Courtesy of CNN*

According to the U.S. Geological Survey (USGS), it is estimated that there are 500,000 detectable earthquakes in the world each year; 100,000 of those can be felt, and 100 of them cause damage. Earthquakes are much less common in the eastern United States than in California, with most events imperceptible by the public. This leads to a dangerous complacency that may be unwarranted.

The first earthquakes reported felt in Georgia were the great New Madrid series of 1811-1812. Most Georgians are largely unaware of the last large event that struck Charleston, South Carolina, in 1886, killing almost 60 people and causing complete devastation to the city. Unfortunately, earthquakes in the eastern United States are very efficient at transmitting seismic energy over large distances, such that the damage area of a magnitude 6.0 here is comparable to a magnitude 7.0 in the western United States.

#### 4.8.1 – Hazard Description

An earthquake is the vibration of the earth's surface following a release of energy in the earth's crust. This energy can be generated by a sudden dislocation of the crust or by a volcanic eruption. Most destructive quakes are caused by dislocations of the crust. The crust may first bend and then, when the stress exceeds the strength of the rocks, break and snap to a new position. In the process of breaking, vibrations called "seismic waves" are generated. These waves travel outward from the source of the earthquake at varying speeds. The movement of these tectonic plates creates stress that can be released as earthquakes. An earthquake's point of initial rupture is called its focus or hypocenter; and the point of ground directly above the hypocenter is called the epicenter.



## SECTION 4: RISK ASSESSMENT

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Earthquakes tend to reoccur along faults, which are zones of weakness in the crust. Even if a fault zone has recently experienced an earthquake, there is no guarantee that all the stress has been relieved. Another earthquake could still occur.

Faults are more likely to have earthquakes on them if they have more rapid rates of movement, have had recent earthquakes along them, experience greater total displacements, and are aligned so that movement can relieve accumulating tectonic stresses. A direct relationship exists between a fault's length and location and its ability to generate damaging ground motion at a given site. In some areas, smaller, local faults produce lower magnitude quakes, but ground shaking can be strong, and damage can be significant because of the fault's proximity to the area. In contrast, large regional faults can generate great magnitudes but, because of their distance and depth, may result in only moderate shaking in the area.

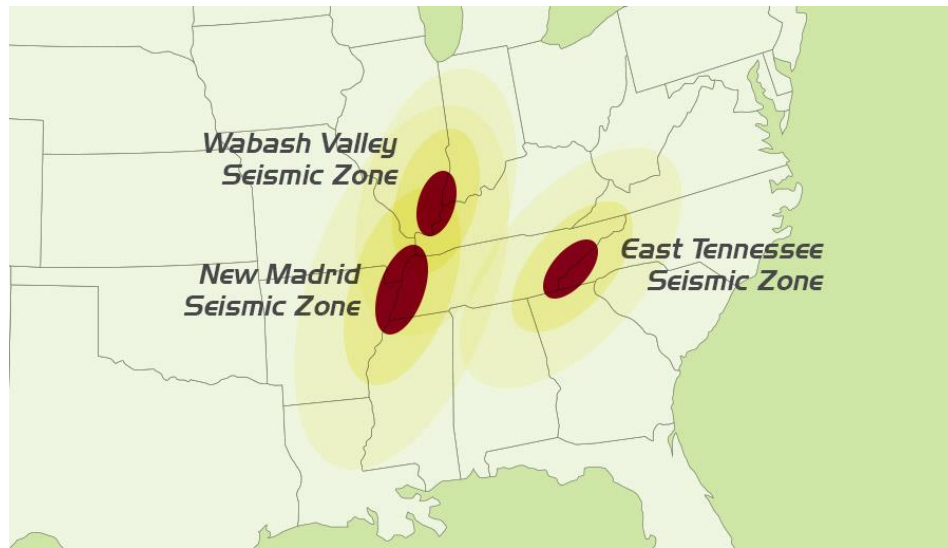
An earthquake's effect(s) can be compounded by the soil type underlying a community's buildings and infrastructure. If the soil is not composed of bedrock and consists of clays, silts, and other types of sand, the pressure generated by an earthquake can force brittle soil and water up toward the surface. These upward forced materials will then destabilize buildings and infrastructure, causing damage that can range from minor cracks to complete destruction. Smaller upward forced materials can destabilize slopes and building foundation further compounding the potential damage to a community.

Geologists classify faults by their relative hazards. Active faults, which represent the highest hazard, are those that have ruptured to the ground surface during the Holocene period (about the last 11,000 years). Potentially active faults are those that displaced layers of rock from the Quaternary period (the last 1,800,000 years). Determining if a fault is "active" or "potentially active" depends on geologic evidence, which may not be available for every fault. Although there are probably still some unrecognized active faults, nearly all the movement between the two plates, and therefore most of the seismic hazards, are on the well-known active faults. However, inactive faults, for which no displacements have been recorded, maintain the potential to reactivate or experience displacement along a branch sometime in the future.

### *4.8.2 – Location & Extent*

According to the Emergency Manager's Guide to Earthquakes in Georgia (1999), Georgia and the Southeastern United States are not typically known for seismic activity but documented incidents in the State of Georgia have shown minor to moderate earthquakes. Earthquakes in northwestern Georgia are clustered along a northeast trending line that represents the southwest extension of the Southeastern Tennessee Seismic Zone. Based on seismicity, the Southeastern Tennessee Seismic Zone is second only to the New Madrid Seismic Zone in the Eastern United States for its size and rate of earthquake production. In both seismic zones, the earthquake hypocenters are at mid-crustal depths ( $14 \pm 10$  km) and outline a 150-mile-long narrow active zone.

Map 86: Seismic Zone of the Central United States



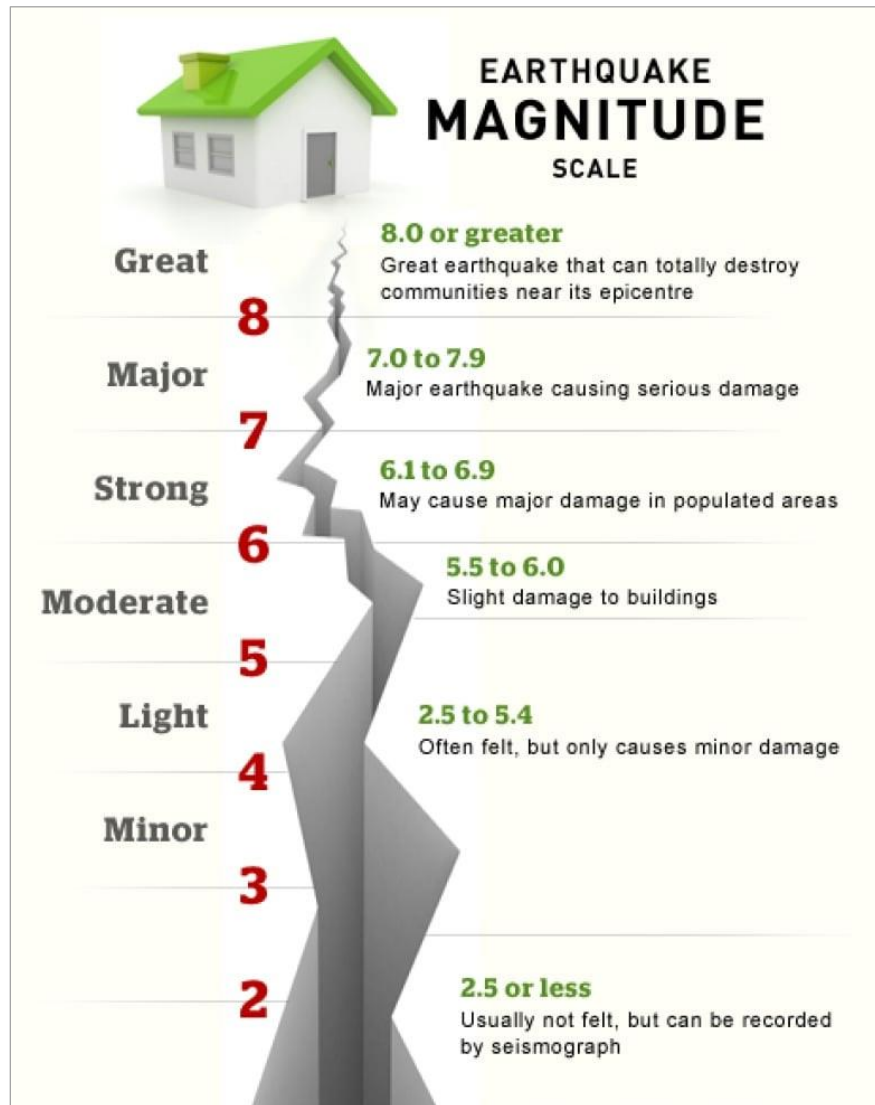
Map Source: Central United States Earthquake Consortium (<https://cusec.org/our-earthquake-risk/>)

These similarities and the existence of the great 1811-12 New Madrid earthquakes suggest that southeastern Tennessee, or Northwest Georgia, could also be the site of a similar great earthquake. This area currently experiences one magnitude 4.0 earthquake about every ten years. A magnitude 4.0 earthquake is generally perceived as a startling vibration that may rock objects off shelves and may cause some cracking of plaster.

There are numerous characteristics measured when observing earthquake activity; however, four of them—force, depth, peak ground acceleration and the distance to the epicenter—are most influential in determining damage. Two scales are used when referring to earthquake activity: the Richter Scale, which estimates the total force of the earthquake; and the Modified Mercalli Intensity Scale, which categorizes the observed damage from the earthquake.

The Richter Scale is a scientific measurement based on the magnitude of the earthquake. It provides seismic experts greater accuracy in comparing the strength of earthquakes across time and at different locations in all areas of the world. The measurements of the Richter Scale are further explained in the diagram below:

Illustration 5: Richter Scale



Data Source: UPSeis / Michigan Tech

The Modified Mercalli Intensity value assigned to a specific site after an earthquake has a more meaningful measure of severity to the nonscientist than the magnitude because intensity refers to the effects experienced at that place. The lower numbers of the intensity scale generally deal with the way the earthquake is felt by people. The higher numbers of the scale are based on observed structural damage. Structural engineers usually contribute information for assigning intensity values of VIII or above. The table below is an abbreviated description of the levels of Modified Mercalli intensity.





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Table 54: Modified Mercalli Intensity Scale

Modified Mercalli Intensity Scale		
Intensity	Shaking	Description / Damage
I	Not felt	Not felt except by a very few under especially favorable conditions.
II	Weak	Felt only by a few persons at rest, especially on upper floors of buildings.
III	Weak	Felt quite noticeably by persons indoors, especially on upper floors of buildings. Many people do not recognize it as an earthquake. Standing motor cars may rock slightly. Vibrations similar to the passing of a truck. Duration estimated.
IV	Light	Felt indoors by many, outdoors by few during the day. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.
V	Moderate	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum in clocks may stop.
VI	Strong	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plates. Damage slight.
VII	Very Strong	Damage negligible in buildings of good design and construction; slight to moderate in well-built, ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
VIII	Severe	Damage slight in specially designated structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
IX	Violent	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage greater in substantial buildings, with partial collapse. Buildings shifted off foundations.
X	Extreme	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundation. Rails bent.

Data Source: *The Severity of an Earthquake (abridged)*, USGS General Interest Publication 1989-288-913

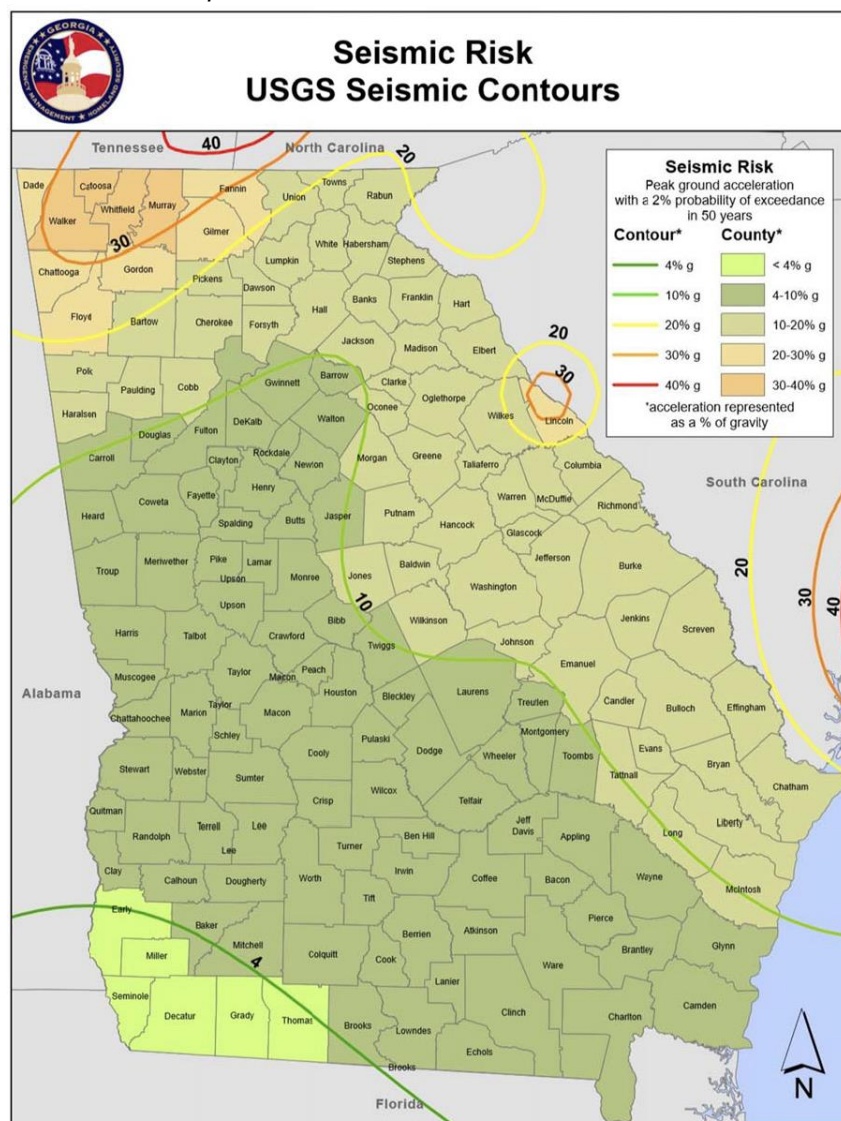
Earthquakes can last from a few seconds to over five minutes; they may also occur as a series of tremors over several days. The actual movement of the ground in an earthquake is seldom the direct cause of injury or death. Casualties generally result from falling objects and debris, because the shocks shake, damage, or demolish buildings and other structures. Disruption of communications, electrical power supplies and

gas, sewer and water lines should be expected. Earthquakes may trigger fires, dam failures, landslides, or releases of hazardous material, compounding their disastrous effects. Such secondary impacts could be magnified by the effects of climate change, though there are currently no models available to estimate them.

Earthquakes large enough to cause damage can be felt in most, if not all, of Georgia's counties. Earthquakes may be felt in any area of Georgia, but the northwestern Georgia counties of Bartow, Catoosa, Chattooga, Dade, Fannin, Floyd, Gilmer, Gordon, Murray, Pickens, Rabun, Towns, Union Walker, and Whitfield, have experienced earthquakes in the past. The Georgia Hazard Mitigation Strategy, Standard and Enhanced Plan (2019), states that Georgia has been seismically active, but no earthquakes were reported, nor seismic disasters declared, between 1952 and 2017.

The following map depicts the State of Georgia's seismic risk.

Map 87: Georgia Seismic Risk Map



Map Source: Georgia Hazard Mitigation Strategy, Standard and Enhanced Plan (2019-2024) ([https://gema.georgia.gov/sites/gema.georgia.gov/files/related\\_files/document/2019%20Georgia%20Hazard%20Mitigation%20Strategy.pdf](https://gema.georgia.gov/sites/gema.georgia.gov/files/related_files/document/2019%20Georgia%20Hazard%20Mitigation%20Strategy.pdf))

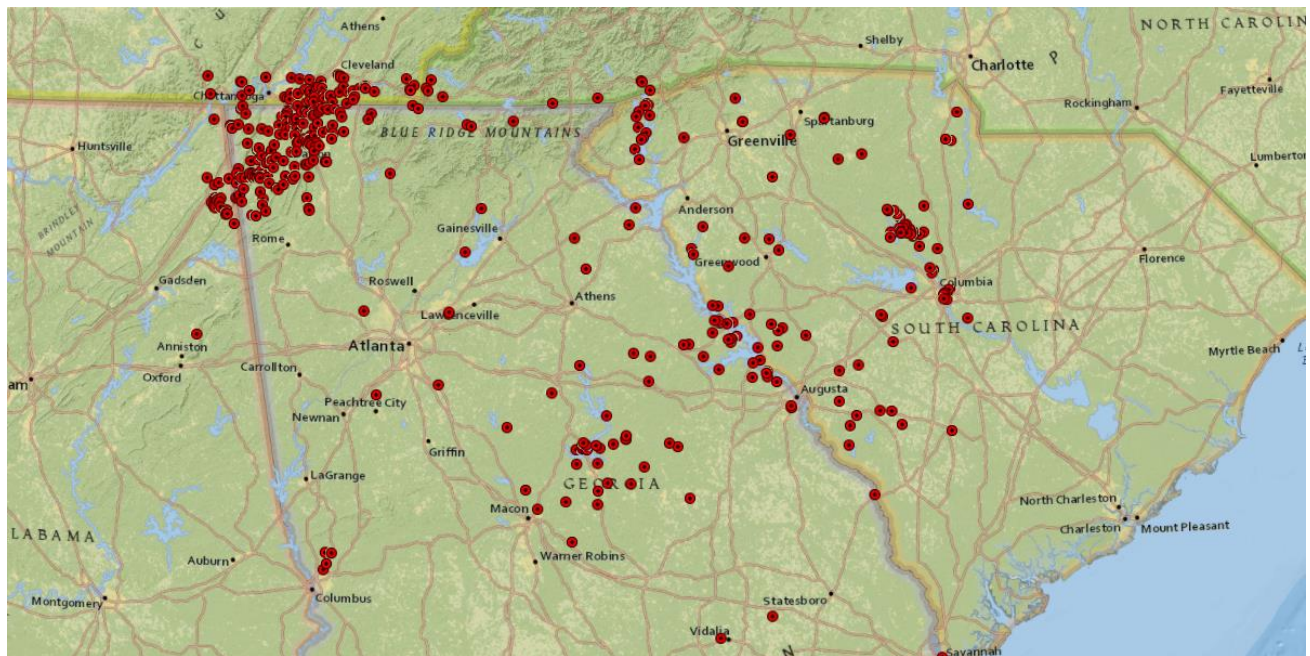
### 4.8.3 – Previous Occurrences

#### ABC Events

Between 1970 and 2020, earthquake events of 1.0M or greater have occurred within 250 miles of DeKalb County 357 times. Most of these were less than 4.0M and are considered minor. This data shows that the region is seismically active.

The strongest earthquake in the region was an estimated 5.5M in Union County, South Carolina on January 1, 1913. Shock waves moved out from the western portion of South Carolina into adjacent Georgia and North Carolina, and even up into parts of Virginia. Fortunately, damage was minimal, and no deaths resulted. This event is significant because it demonstrates that large, destructive earthquakes can strike the region. (<https://www.dnr.sc.gov/geology/earthquake-info.html>)

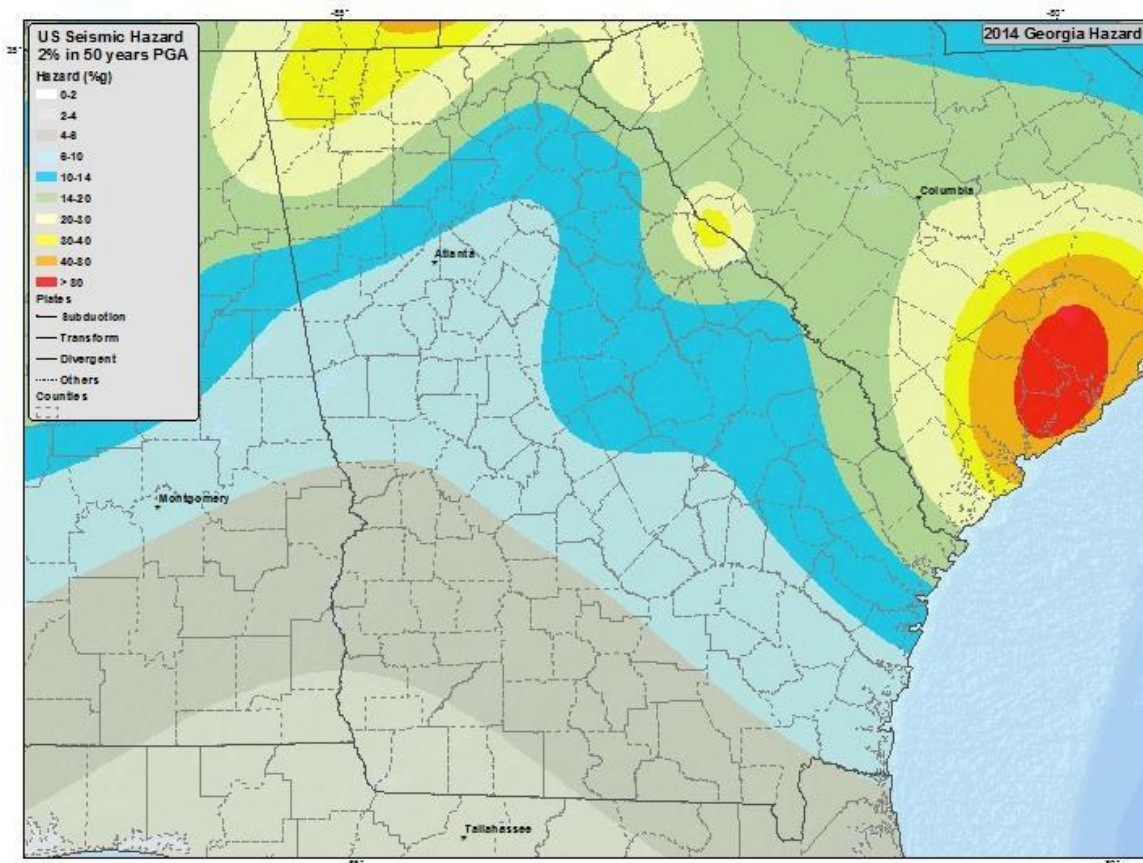
*Map 88: Earthquakes 1900 - 2020, ≤250 miles*



*Map Source: U.S. Geological Survey*



Map 89: 2014 Seismic Hazard Map, State of Georgia



Map Source: United States Geologic Survey (<https://www.usgs.gov/media/images/2014-seismic-hazard-map-georgia>)

Table 55: Earthquake Events by Magnitude within 250 miles of DeKalb County (1970-2020)

Earthquake Events by Magnitude within 250 miles of DeKalb County (1970-2020)		
Decade	No. of Events	Percentage
4.0M+	8	2%
3.0M – 3.9M	31	9%
2.0M – 2.9M	204	57%
1.0M – 1.9M	114	32%
<b>Total</b>	<b>357</b>	<b>100%</b>

Data Source: U.S. Geological Survey

### 4.8.3A – Probability of Future Events

Based on this data, it is **likely** an earthquake event will occur within 250 miles of DeKalb County and the incorporated jurisdictions within its boundaries every year. However, it is most likely these earthquakes will be minor and cause no damage or injuries.



### 4.8.4 – Vulnerability of Community Assets

#### Vulnerability of People

All of DeKalb County's population are susceptible to earthquakes. Low-income individuals are more vulnerable to earthquake impacts. Like extreme weather, it is likely that low-income people will be disproportionately affected by earthquakes due to shoddy housing construction and the age of affordable housing. Low-income individuals also experience greater difficulties in recovering from earthquake impacts. Housing is also an important factor in determining the vulnerability of people to earthquake impacts. There are indicators of increased vulnerability of some people in DeKalb County to earthquake impacts due to housing characteristics. Many older multi-family developments are suffering from physical deterioration and are often concentrated in areas with higher poverty rates.

According to U.S. Census Bureau data, 15.1% of DeKalb County's population live in poverty. This represents 113,148 people. The cities of Lithonia (38.9%), Clarkston (30.9%), and Doraville (22.8%) have the highest levels of poverty in DeKalb County. The DeKalb County 2021 Comprehensive Plan 5-Year Update notes that poverty rates have increased in certain sections of central and south DeKalb County(<https://www.dekalbcountyga.gov/planning-and-sustainability/2021-comprehensive-plan-5-year-update>).

Individuals with access and functional needs are more vulnerable to earthquake impacts. This may include children, the elderly, they physically or mentally disabled, non-English speakers, the medically or chemically dependent, and the transportation disadvantaged ([https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook\\_03-2013.pdf](https://www.fema.gov/sites/default/files/2020-06/fema-local-mitigation-planning-handbook_03-2013.pdf)). In DeKalb County, this includes the following:

- Individuals with a disability: 10.2% (75,923 people)
- Persons 65 years and over: 11.9% (89,507 people)
- Persons under 9 years: 13.5% (101,416 people)
- Speak English less than "very well" (age 5 years+): 8.7% (60,536 people)
- Households with no vehicles available: 8.6% (24,418 households)

The City of Stonecrest (11.4%) has the highest percentage of individuals with a disability. The City of Avondale Estates (23.4%) has the highest ratio of population aged 65 years or older. The City of Lithonia (22.3%), City of Clarkston (18.3%), and City of Decatur (18.2%) have the greatest percentage of people under 9 years. The City of Doraville (42.4%), City of Clarkston (40.9%), and City of Chamblee (28.7%) have the highest percentage of people who speak English less than "very well." The City of Lithonia (14.7%) and City of Clarkston (14.3%) have the highest ratio of households with no vehicle available.

This data, retrieved from the American Community Survey and the DeKalb County 2021 Comprehensive Plan 5-Year Update, provides insight into certain characteristics of DeKalb County that are likely indicators of vulnerability. Based on this data, the greatest population vulnerabilities to earthquake hazards in DeKalb County are in the City of Clarkston, the City of Lithonia, and unincorporated areas of the county.

#### Vulnerability of the Economy

The leading industries in DeKalb County are Healthcare and Social Services (14.9% jobs), Retail Trade (10.9% of jobs), Accommodations and Food Services (7.2% of jobs), and Administrative and Support and Waste Management and Remediation Services (7.2% of jobs). Educational Services is another important industry in DeKalb County as it provides the fifth largest percentage of jobs (6.6%) and the highest average weekly wages of all industries (\$2105). The private sector provides 85.6% of employment, while the Federal, State, and local governments provide 14.4% of DeKalb County employment





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(<https://explorer.gdol.ga.gov/vosnet/mis/Profiles/Counties/DeKalb.pdf>). The largest employers in DeKalb County are, (1) Centers for Disease Control and Prevention (CDC); (2) Veterans Affairs Medical Center Atlanta; (3) Emory University Hospital; (4) Emory DeKalb Medical; (5) Children's Healthcare of Atlanta; (6) AT&T Mobility LLC; (7) State Farm Insurance Company/Atlanta Perimeter; (8) InterContinental Hotels Group Inc; (9) AirWatch LLC; and (10) Georgia Regional Hospital Atlanta (<https://www.dekalbchamber.org/why-dekalb/>).

All sectors of DeKalb County's economy are susceptible to the impacts of earthquake hazards. The loss of any of DeKalb County's leading industries could severely disrupt the community and its ability to recover from a disaster. Given the significance of the Healthcare industry in DeKalb County, an earthquake-related disaster impacting one of the community's hospitals would severely stress the capabilities of the community to respond to the medical needs of the community. The CDC, located in DeKalb County, is a Federal agency under the United States Department of Health and Human Services which works to protect America from health, safety and security threats, both foreign and in the United States (<https://www.cdc.gov/about/organization/mission.htm>). Its loss would not only affect DeKalb County's economy but would affect the entire nation.

### **Vulnerability of the Built Environment**

The built environment includes infrastructure systems, critical facilities, and cultural resources. DeKalb County and each of its participating jurisdictions have developed a list of infrastructure and critical facilities which are vital to the community. The National Park Service's National Register of Historic Places is the official list of the Nation's historic places worthy of preservation.

Infrastructure systems are critical for life safety and economic viability and include transportation, power, communication, and water and wastewater systems. Critical facilities are structures and institutions which are necessary for the community's response to and recovery from emergencies. These critical facilities must continue to operate during and following disasters to reduce the severity of impacts and accelerate recovery. Appendix C of this plan lists the community's infrastructure and critical facilities. Appendix C of this plan lists the places in DeKalb County which are part of the National Register of Historic Places and are considered important cultural resources.

Considering the entire planning area is susceptible to earthquakes, increased development and population growth can reasonably translate to exposure. The DeKalb County 2021 Comprehensive Plan 5-Year Update visualizes the development of three types of Activity Centers: Neighborhood Centers, Town Centers, and Regional Centers. There are 46 Activity Centers countywide. In addition, the plan includes residential designations: Rural, Suburban, and Traditional. DeKalb County's Future Land Use Map can be accessed via <https://dekalbgis.maps.arcgis.com/apps/webappviewer/index.html?id=f241af753f414cdfa31c1fdef0924584>.

### **Vulnerability of Natural Environment**

The 2021 DeKalb County Comprehensive Plan – 5 Year Update lists two significant and unique geological features. Soapstone Ridge, located in the southwestern portion of the county, contains aboriginal steatite quarries which are of archeological and historic significance. Stone Mountain, located in the eastern area of the county, is the largest exposed granite outcropping in the world. The 2021 DeKalb County Comprehensive Plan – 5 Year Update also notes there are various Federally protected wetlands in the area, mostly in the flood prone areas of perennial creeks. These natural environmental resources are minimally vulnerable to earthquake impacts.



### 4.8.5 – Risk Analysis

Like EF5 tornadoes and a “500-year flood,” a strong earthquake is a low probability, high consequence event for DeKalb County. Unlike tornadoes and flooding, there are few events which can realistically be used as analogs to project future losses.

For this plan, FEMA’s National Risk Index (NRI) will be used to identify risk project potential losses. The NRI estimates that DeKalb County and the jurisdictions which lie within its boundaries have 691,893 people and \$85,060,191,000 worth of structures exposed to earthquake hazard impacts each year. The NRI projects annual losses of 0.02 people and \$2,339,138 worth of structures to earthquake hazard impacts each year. It is important to reemphasize that due to the low probability and high consequences of an earthquake-related disaster in the planning area, these losses are unlikely to occur. However, if a large earthquake struck the planning area, the losses could be much greater than the NRI projects.

Table 56: Risk Analysis of Community Lifeline Systems to Earthquakes, DeKalb County

Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Search and Rescue	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
	Government Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage critical facilities and historical sites</li><li>• disrupt power and communications to emergency operations centers</li><li>• disrupt essential government functions</li><li>• cause short-term or long-term school cancellations.</li></ul>
	Community Safety	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage flood control systems</li><li>• create secondary hazards such as fires, landslides, and liquefaction</li></ul>
Food, Water, Shelter	Food	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• disrupt commercial food distribution and supply chains</li><li>• affect commercial and home perishable food supplies</li></ul>
	Water	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• generate secondary hazards which can contaminate drinking water systems</li><li>• damage wastewater systems</li></ul>
	Shelter	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage homes</li><li>• damage shelters</li><li>• damage lodging facilities</li></ul>
	Agriculture	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure livestock</li><li>• damage farm structures and equipment</li><li>• destroy flood control systems</li><li>• damage irrigation systems</li></ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Health and Medical	Medical Care	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage hospitals, pharmacies, long-term care facilities, and veterinary clinics</li><li>• disrupt power and communications</li><li>• contaminate water supply, affecting the provision of care</li><li>• expend resources</li></ul>
	Patient Movement	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• injure personnel</li><li>• damage facilities and equipment</li><li>• disrupt responder communications</li><li>• damage or block transportation routes</li><li>• expend resources</li></ul>
	Public Health	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage facilities</li><li>• disrupt power and communications</li><li>• expend resources</li><li>• increase susceptibility to diseases</li></ul>
	Fatality Management	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• expend resources</li><li>• damage facilities and equipment</li><li>• disrupt power and communications</li></ul>
	Medical Supply Chain	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li><li>• damage or block transportation routes</li></ul>



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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Energy	Power (Grid)	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage generation systems</li><li>• damage transmission systems</li><li>• damage distribution systems</li></ul>
	Fuel	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage fuel storage resources</li><li>• damage pipelines</li><li>• damage fuel distribution locations</li></ul>
Communications	Infrastructure	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage or cause wireless systems to become overburdened</li><li>• damage cable and wireline systems</li><li>• damage or disrupt broadcast and satellite systems</li><li>• damage or cause internet systems to become overburdened</li></ul>
	Alerts, Warnings, and Messages	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage physical warning systems</li><li>• disrupt the delivery of emergency alerts and warnings</li></ul>
	911 and Dispatch	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage public safety answering points or dispatch centers</li><li>• damage communication systems</li><li>• overburden communication systems</li></ul>
	Responder Communications	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"><li>• damage communication systems</li><li>• overburden communication systems</li></ul>
	Finance	<b>High Risk.</b> Impacts may:





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Risk Analysis of Community Lifeline Systems to Wind, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>• damage banking facilities and equipment</li> <li>• disrupt communications</li> </ul>
Transportation	Highway/Roadway	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage or block roads and bridges</li> </ul>
	Mass Transit	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage buses or trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Railway	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage freight or passenger trains</li> <li>• damage or block transportation routes</li> <li>• delay routes</li> </ul>
	Aviation	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage airports</li> <li>• damage aircraft</li> <li>• delay routes</li> </ul>
	Maritime	<b>No Risk.</b>
Hazardous Materials	Facilities	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate oil/hazardous materials/toxic incidents from fixed facilities</li> <li>• damage facilities</li> <li>• disrupt power supply to facilities</li> </ul>
	Hazmat, Pollutants, Contaminants	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• generate oil/hazardous materials/toxic incidents from non-fixed facilities, rail, and roadways</li> </ul>



## SECTION 4: RISK ASSESSMENT

### 4.8.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E1	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, over a quarter of DeKalb County residents either live below the poverty line and/or have access and functional needs.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 25% of residents in DeKalb County have low-income and/or functional and access needs and are at a greater risk for injury due to an earthquake and will likely require more assistance recovering from the event.
E2	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 23.4% of Avondale Estates residents are aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a quarter of the City of Avondale's residents are at a greater risk for injury due to an earthquake and may require greater assistance recovery from the event.
E3	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 22.4% of Brookhaven residents are children, of which 20% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Brookhaven has a large population of children, of which about 20% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.
E4	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 28.7% of Chamblee residents speak English less than "very well".	Individuals who don't speak English well are more vulnerable to disasters. The City of Chamblee has a large population of residents that do not speak English well and are therefore at a greater risk of injury due an earthquake.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E5	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Clarkston, 30.9% of residents live below the poverty line, 32.4% are children, 40.9% do not speak English “very well”, and 14.3% of households have no vehicle available.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Clarkston have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E6	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 32.2% of Decatur residents are children, of which 9.1% of live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Decatur has a large population of children, of which 9.1% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.
E7	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Doraville, 22.8% of residents live below the poverty line, and 42.4% speak English less than “very well”.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Doraville have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E8	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 21.9% of Dunwoody residents are children, of which 10.8% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Dunwoody has a large population of children, of which about 11% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E9	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Lithonia, 38.9% of residents live below the poverty line, 42.3% are children, and 14.7% have no access to a vehicle.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 38% of residents in the City of Lithonia have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E10	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 16.8% of Pine Lake's population is aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a 17% of the City of Pine Lake's residents are at a greater risk for injury due to an earthquake and may require greater assistance recovery from the event.
E11	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 10.9% of Stone Mountain's population have a physical or mental disability. 10.3% have no vehicle available, and 21.8% are children.	Individuals with functional and access needs are more vulnerable to disasters. Over 20% of residents in the City of Stone Mountain have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
E12	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Stonecrest, 11.4% of the population have a disability. Also, 26.7% of the population are children, of which 20.3% live in poverty.	Individuals with functional and access needs are more vulnerable to disasters. Over a quarter of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E13	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Tucker, 9.5% of residents have a disability. Also, 21.8% of the population are children.	Individuals with functional and access needs are more vulnerable to disasters. Over a 20% of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E14	<b>Earthquakes and built environment</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	Infrastructure systems and critical facilities are important for life safety, economic viability, disaster response operations, and disaster recovery operations.	Infrastructure systems and critical facilities are vulnerable to earthquake impacts. A strong earthquake near DeKalb County could damage or destroy key lifeline systems, hinder response operations, and prolong recovery operations.



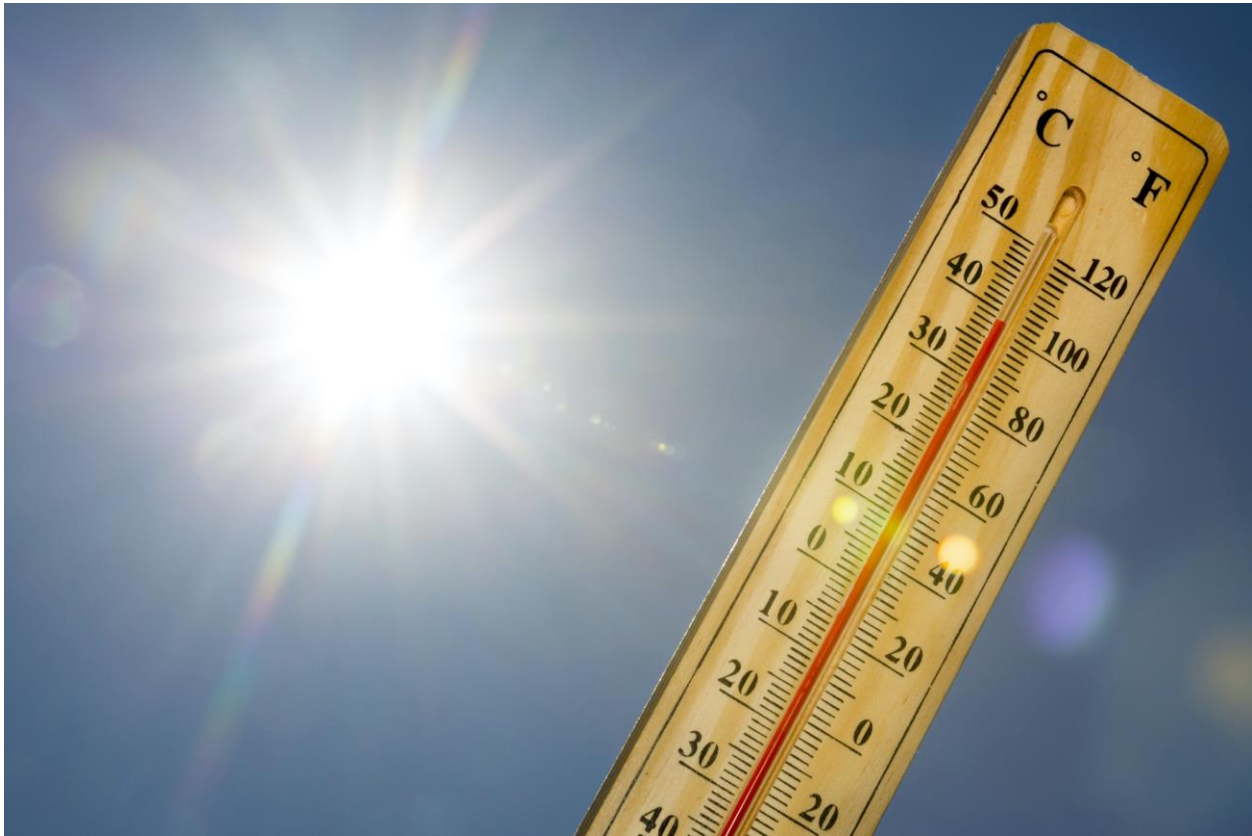


Photo Source: istockphoto.com

### 4.9(EH) – Extreme Heat

#### 4.9.1 – Hazard Description

According to the National Weather Service, extreme heat, also known as heat waves, is a period of abnormally hot weather generally lasting more than two days. Heat waves can occur with or without high humidity. They have the potential to cover a large area, exposing a high number of people to hazardous heat (<https://www.weather.gov/safety/heat-during>).

Heat can be taxing on the body. During extremely hot weather, the body's ability to cool itself is challenged. According to the Centers for Disease Control and Prevention (CDC), an average of 702 heat-related deaths occurred annually in the United States between 2004-2018 (<https://www.cdc.gov/mmwr/volumes/69/wr/mm6924a1.htm>). The National Highway Traffic Safety Administration (NHTSA) reports that children dying from heatstroke in cars, either because they were left or became trapped, has increased in recent years. Since 1998, over 900 child hot car deaths have occurred in the United States (<https://www.nhtsa.gov/child-safety/you-can-help-prevent-hot-car-deaths>).

Heat cramps may be the first sign of heat-related illness and are characterized heavy sweating and by painful muscle cramps and spasms usually in the legs and abdomen. Heat exhaustion symptoms include heavy sweating, weakness, clammy skin, fast or weak pulse, muscle cramps, dizziness, nausea and vomiting, headache, and fainting. A heat stroke is the most dangerous heat-related illness. It is characterized by a throbbing headache, confusion, nausea, dizziness, body temperature greater than 103°F, fainting, and loss of consciousness.



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Climate change is having an impact on the frequency of extreme heat. According to the Climate Science Special Report, annual average temperature over the contiguous United States has increased by 1.2°F for the period 1986–2016 relative to 1901–1960 and by 1.8°F based on a linear regression for the period 1895–2016. Annual average temperature over the contiguous United States is projected to rise. Increases of about 2.5°F are projected for the period 2021–2050 relative to 1976–2005, implying recent record-setting years may be “common” in the next few decades. Much larger rises are projected by the late century (Vose, R.S., D.R. Easterling, K.E. Kunkel, A.N. LeGrande, and M.F. Wehner, 2017: Temperature changes in the United States. In: Climate Science Special Report: Fourth National Climate Assessment, Volume I [Wuebbles, D.J., D.W. Fahey, K.A. Hibbard, D.J. Dokken, B.C. Stewart, and T.K. Maycock (eds.)]. U.S. Global Change Research Program, Washington, DC, USA, pp. 185-206, doi: 10.7930/J0N29V45).

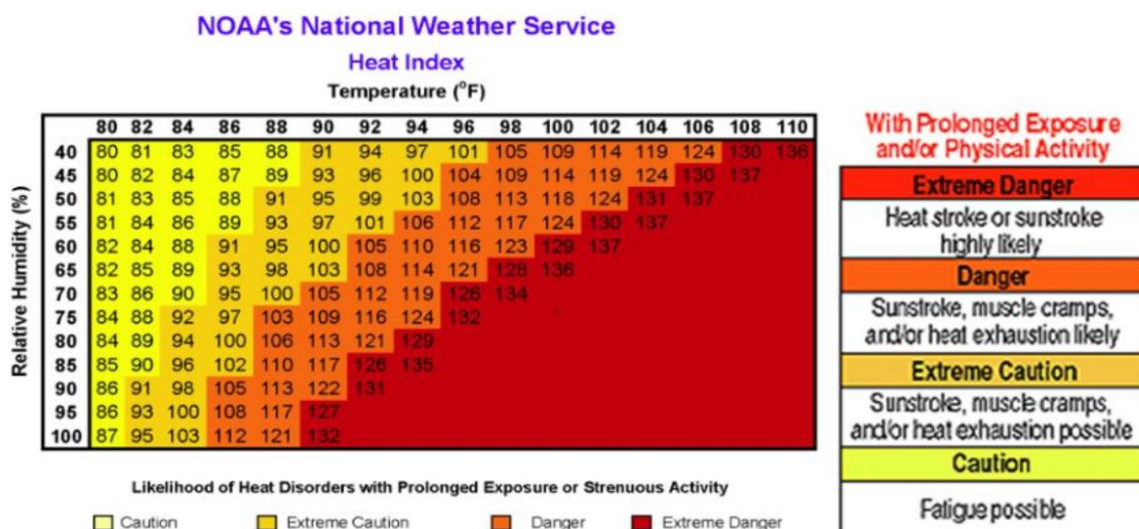
### 4.9.2 – Location & Extent

Extreme heat can occur anywhere in DeKalb County. Urban areas are more prone to extreme heat due to the heat island effect. According to the U.S. Environmental Protection Agency (EPA), heat islands are urbanized areas that experience higher temperatures due to structures such as buildings, roads, and other infrastructure absorbing and re-emitting the sun’s heat more than natural landscapes such as forests and water bodies (<https://www.epa.gov/heatislands>). Extreme heat is much more likely to occur in the summer.

The hottest temperature recorded in the area was 106°F on June 30, 2012. This broke the previous record of 105°F, which was set on July 17, 1980. Extreme heat often comes in waves that lasts over a period of days. Four of the hottest days on record in the area occurred over a six-day period in 1980. Three of the hottest days on record occurred over three consecutive days in 2012.

In order to measure the extent of Excessive Heat, the National Weather Service, uses the Heat Index (HI), a chart that accurately measures the apparent temperature of the air as it increases with the relative humidity. The Heat Index can be used to determine what effects the temperature and humidity can have on the population. To determine the Heat Index, you need the temperature and the relative humidity.

Illustration 6: Extreme Heat Extent by the National Weather Service



Source: NOAA's National Weather Service



### 4.9.3 – Previous Occurrences

Table 57: Record High Temperatures, Atlanta Area

Record High Temperatures, Atlanta Area	
Date	Temperature
June 30, 2012	106°F
July 1, 2012	105°F
July 17, 1980	105°F
July 13, 1980	105°F
June 29, 2012	104°F
August 22, 2007	104°F
July 16, 1980	104°F
August 10, 2007	103°F
August 9, 2007	103°F
July 12, 1980	103°F
July 29, 1952	103°F
July 12, 1930	103°F

Data Source: National Weather Service, Peachtree City, GA  
(<https://www.weather.gov/wrh/Climate?wfo=ffc>)

**2012 Extreme Heat Event:** A strong upper-level ridge responsible for record-breaking heat across the Plains and Midwest slid toward the Southeast on June 28, 2012. This was one of the hottest events in Georgia state history, with multiple all-time heat records tied or broken, including Athens (109 degrees on June 29th broke the previous record of 108 set on 7/12/1930), Macon (108 degrees on June 30th tied the record last set on 7/17/1980), Atlanta (106 degrees on June 30th broke the old record of 105 set on 7/17/1980), and Columbus (106 degrees on June 30th tied the record last set on 9/5/1925).

### 4.9.4 – Vulnerability of Community Assets

#### Vulnerability of People

The CDC identifies the following six groups as being especially vulnerable to extreme heat (<https://www.cdc.gov/disasters/extremeheat/specificgroups.html>):

- **Older Adults (aged 65+):** Older adults do not adjust as well as young people to sudden temperature change. They are more likely to have a chronic medical condition that changes normal body responses to heat. Older adults are more likely to take prescription medicines that affect the body's ability to control its temperature or sweat.
- **Infants and Children:** Infants and young children rely on others to keep them cool and hydrated when it's hot outside. The NHTSA reports that child hot car deaths have increased in recent years. In 2018 and 2019, a record 53 children died of vehicular heat strokes each year. Most hot car deaths – 53% - happen because someone forgets a child in a car. About 46% of the time



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when a child was forgotten, the caregiver meant to drop the child off at a daycare or preschool. Nearly 75% of children who are forgotten, and die are less than 2 years old.

- **Individuals with Chronic Conditions:** People with chronic conditions are less likely to sense and respond to changes in temperature. They may be taking medications that can make the effect of extreme heat worse. Conditions like heart disease, mental illness, poor blood circulation, and obesity are risk factors for heat-related illness.
- **Low-income Individuals:** People with limited income are less likely to have access to air conditioning. Individuals with low-income also are much more likely to be unable to afford their energy bills, especially during summer months when the cost is higher.
- **Athletes:** People who exercise in extreme heat are more likely to become dehydrated and get heat-related illness.
- **Outdoor workers:** People who work outdoors are more likely to become dehydrated and get heat-related illness.

Because the population of DeKalb County continues to grow and development projects are underway, people within the planning area are increasingly vulnerable to the short- and long-term effects of extreme heat. More development will expose more areas and more people to the heat island effect.

### Vulnerability of the Economy

Extreme heat can have some effects on the economy, particularly agriculture. Heat stress can harm livestock. According to the USDA, farmers have lost over \$75 million in the midwestern cattle industry from 2007-2016 (<https://www.ars.usda.gov/plains-area/clay-center-ne/marc/docs/heat-stress/impactofheatstress/>). Extreme heat can also affect the development of row crops and many fruit crops. For example, soybeans exposed to heat stress during flowering can result in pollen sterility and reduced seed set ([https://mrcc.purdue.edu/living\\_wx/heatwaves/index.html](https://mrcc.purdue.edu/living_wx/heatwaves/index.html)).

### Vulnerability of the Built Environment

Extreme can have a negative impact on infrastructure systems, particularly transportation and utilities. Heat waves will generate a greater demand on local utility systems' ability to deliver water and power. Water resources are strained due to power generation. Extreme heat may also damage roads, bridges, and railroads. Higher temperatures can cause pavement to soften and expand. This can create rutting and potholes, particularly in high-traffic areas and can place stress on bridge joints. High temperatures cause rail tracks to expand and buckle. Periods of extreme heat can affect aircraft performance and may cause airplanes to face cargo restrictions, flight delays, and cancellations. During the 2021 Pacific Northwest Heatwave, pavement was observed to soften and expand in Portland, Oregon (<https://www.npr.org/2021/06/29/1011269025/photos-the-pacific-northwest-heatwave-is-melting-power-cables-and-buckling-roads>).

High heat can deteriorate and buckle pavement, warp, or buckle railway tracks, and exceed certain types of aircraft operational limits. Demands for electricity increase to keep homes, workspaces, and food storage areas cool. This demand can strain the electrical grid.

Because the population of DeKalb County continues to grow and development projects are underway, the built environment within the planning area will be increasingly vulnerable to the short- and long-term effects of extreme heat. Structures such as buildings, roads, and other infrastructure absorb and re-emit the sun's heat more than natural landscapes such as forests and water bodies.



### Vulnerability of Natural Environment

Excessive heat events often occur in tandem with droughts. In fact, droughts can make heat waves worse because the sun can heat dry ground more efficiently than wet ground. The two work together to impact the natural environment. Trees and plants can be damaged and die due to extreme heat and drought. Bodies of water can dry up. The heat and reduced water supply can cause harm to the region's wildlife, as well.

#### 4.9.5 – Risk Analysis

All people, elements of the economy, built environment, and natural environment are exposed to extreme heat impacts. Young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts. The economy, particularly agriculture, are at risk of losses due to extreme heat impacts. Transportation and energy infrastructure can be negatively impacted by extreme heat events. Forests, water bodies, and wildlife are subject to damage from extreme heat exposure.

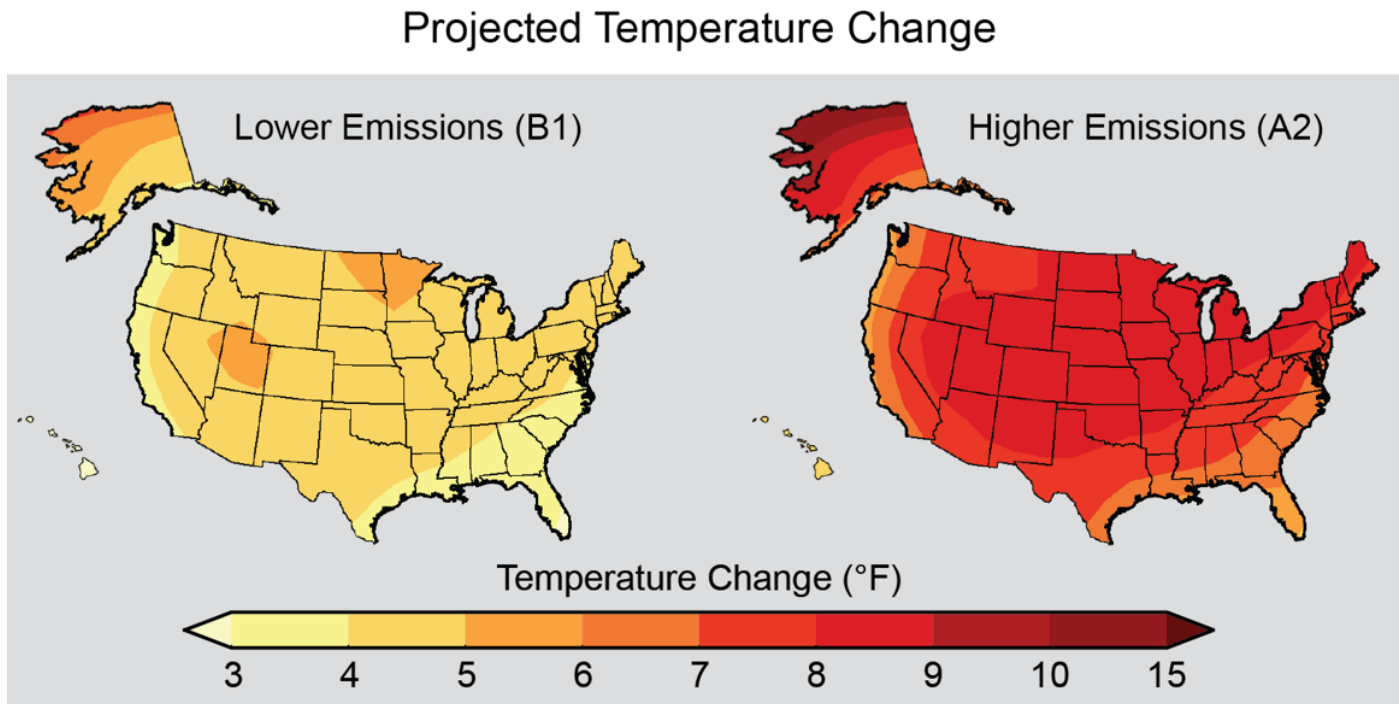
An analog for an extreme heat risk analysis is the 1980 heat wave. It was one of the worst in United States history. It's estimated that there were up to 10,000 fatalities directly or indirectly caused by the heat and drought, and approximately \$20 billion in crop damages in the United States (<https://www.hSDL.org/c/tl/1980-us-heat-wave/>). Georgia suffered approximately \$500 million in economic losses, mainly due to crop and livestock losses, increased energy demand, and highway damage ([https://journals.ametsoc.org/view/journals/mwre/109/10/1520-0493\\_1981\\_109\\_2055\\_tshwad\\_2\\_0\\_co\\_2.xml?tab\\_body=pdf](https://journals.ametsoc.org/view/journals/mwre/109/10/1520-0493_1981_109_2055_tshwad_2_0_co_2.xml?tab_body=pdf)). In Alabama, the sustained period of extreme heat and high humidity took its toll on the state. In the month of July alone, there was an estimated 120 heat-related deaths along with the loss of more than 200,000 chickens and half the state's corn crop ([https://www.weather.gov/bmx/climo\\_1980heatwave](https://www.weather.gov/bmx/climo_1980heatwave)).

Less severe, but somewhat similar heat waves occurred in the 1950s and 2010s. So, it appears that about every 30 years, a severe extreme heat event occurs in Georgia. If an event like the 1980 heat wave occurred in Georgia, the event would cause approximately \$1.7 billion dollars in economic losses. It is likely it would cause heat-related illness and deaths, but probably not on the level the 1980 event caused. This is due to the increased usage of air conditioning in homes now compared to 1980.

The risk for extreme heat events is likely to be exacerbated by climate change. According to the Georgia Hazard Mitigation Strategy, climate change has generally increased the probability of heat waves, and prolonged extreme heat events have been unprecedented since the start of reliable instrumental records in 1895. The National Climate Assessment projects an increase in average temperature of 8°F - 9°F by the end of the century if carbon emissions increase.



Illustration 7: Projected Temperature Change



Data Source: National Weather Service, Peachtree City, GA  
<https://www.weather.gov/wrh/Climate?wfo=ffc>

Table 58: Risk Analysis of Community Lifeline Systems to Extreme Heat, DeKalb County

Risk Analysis of Community Lifeline Systems to Extreme Heat, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
Safety and Security	Law Enforcement /Security	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>damage transportation routes</li> </ul>
	Fire Services	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>damage transportation routes</li> <li>expend resources</li> </ul>
	Search and Rescue	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>damage transportation routes</li> </ul>
	Government Services	<b>Low Risk.</b> Impacts may:



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Risk Analysis of Community Lifeline Systems to Extreme Heat, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
		<ul style="list-style-type: none"> <li>cause short-term or long-term school cancellations.</li> </ul>
	Community Safety	<b>No Risk.</b>
<b>Food, Water, Shelter</b>	Food	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>affect commercial and home perishable food supplies</li> </ul>
	Water	<b>No Risk.</b>
	Shelter	<b>No Risk.</b>
	Agriculture	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure livestock</li> <li>damage crops</li> </ul>
<b>Health and Medical</b>	Medical Care	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources</li> </ul>
	Patient Movement	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>injure personnel</li> <li>expend resources</li> </ul>
	Public Health	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources</li> </ul>
	Fatality Management	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources</li> </ul>
	Medical Supply Chain	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>expend resources (e.g., blood supply, pharmaceuticals, devices, medical gases, raw materials)</li> <li>damage transportation routes</li> </ul>
<b>Energy</b>	Power (Grid)	<b>High Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>overwhelm resources</li> </ul>
	Fuel	<b>No Risk.</b>



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Risk Analysis of Community Lifeline Systems to Extreme Heat, DeKalb County		
Community Lifeline System	Lifeline Component	Risk
<b>Communications</b>	Infrastructure	<b>No Risk.</b>
	Alerts, Warnings, and Messages	<b>No Risk.</b>
	911 and Dispatch	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• overburden communication systems</li> </ul>
	Responder Communications	<b>No Risk.</b>
	Finance	<b>No Risk.</b>
<b>Transportation</b>	Highway/Roadway	<b>Moderate Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage roads and bridges</li> </ul>
	Mass Transit	<b>Low Risk.</b> Impacts may: <ul style="list-style-type: none"> <li>• damage transportation routes</li> </ul>
	Railway	<b>No Risk.</b>
	Aviation	<b>No Risk.</b>
	Maritime	<b>No Risk.</b>
<b>Hazardous Materials</b>	Facilities	<b>No Risk.</b>
	Hazmat, Pollutants, Contaminants	<b>No Risk.</b>

### 4.2.5A – Problem Statements

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
<b>EH1</b>	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In DeKalb County and the jurisdictions that lie within its boundaries: <ul style="list-style-type: none"> <li>• 14% of the population is ≤9 years old</li> <li>• 12% of the population is ≥65 years old</li> <li>• 10% of the population has a disability</li> </ul>	Over 25% of the population in DeKalb County and the jurisdictions that lie within its boundaries are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH2	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Avondale Estates: <ul style="list-style-type: none"><li>11% of the population is ≤9 years old</li><li>23% of the population is ≥65 years old</li><li>9% of the population has a disability</li></ul>	Over 30% of the population in the City of Avondale Estates are vulnerable to extreme heat impacts.
EH3	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Brookhaven: <ul style="list-style-type: none"><li>15% of the population is ≤9 years old</li><li>10% of the population is ≥65 years old</li><li>6% of the population has a disability</li></ul>	Over 25% of the population in the City of Brookhaven are vulnerable to extreme heat impacts.
EH4	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Chamblee: <ul style="list-style-type: none"><li>15% of the population is ≤9 years old</li><li>8% of the population is ≥65 years old</li><li>7% of the population has a disability</li></ul>	Over 20% of the population in the City of Chamblee are vulnerable to extreme heat impacts.
EH5	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Clarkston: <ul style="list-style-type: none"><li>18% of the population is ≤9 years old</li><li>4% of the population is ≥65 years old</li><li>8% of the population has a disability</li></ul>	Over 20% of the population in the City of Clarkston are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH6	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Decatur: <ul style="list-style-type: none"> <li>18% of the population is ≤9 years old</li> <li>12% of the population is ≥65 years old</li> <li>8% of the population has a disability</li> </ul>	Over 30% of the population in the City of Decatur are vulnerable to extreme heat impacts.
EH7	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Doraville: <ul style="list-style-type: none"> <li>15% of the population is ≤9 years old</li> <li>8% of the population is ≥65 years old</li> <li>5% of the population has a disability</li> </ul>	Over 20% of the population in the City of Doraville are vulnerable to extreme heat impacts.
EH8	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Dunwoody: <ul style="list-style-type: none"> <li>16% of the population is ≤9 years old</li> <li>14% of the population is ≥65 years old</li> <li>7% of the population has a disability</li> </ul>	Over 30% of the population in the City of Dunwoody are vulnerable to extreme heat impacts.
EH9	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Lithonia: <ul style="list-style-type: none"> <li>22% of the population is ≤9 years old</li> <li>7% of the population is ≥65 years old</li> <li>9% of the population has a disability</li> </ul>	Over 30% of the population in the City of Lithonia are vulnerable to extreme heat impacts.
EH10	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Pine Lake: <ul style="list-style-type: none"> <li>17% of the population is ≥65 years old</li> <li>6% of the population has a disability</li> </ul>	Over 15% of the population in the City of Pine Lake are vulnerable to extreme heat impacts.





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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH11	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Stone Mountain: <ul style="list-style-type: none"> <li>10% of the population is ≤9 years old</li> <li>9% of the population is ≥65 years old</li> <li>11% of the population has a disability</li> </ul>	Over 20% of the population in the City of Stone Mountain are vulnerable to extreme heat impacts.
EH12	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Stonecrest: <ul style="list-style-type: none"> <li>15% of the population is ≤9 years old</li> <li>8% of the population is ≥65 years old</li> <li>11% of the population has a disability</li> </ul>	Over 20% of the population in the City of Stonecrest are vulnerable to extreme heat impacts.
EH13	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Tucker: <ul style="list-style-type: none"> <li>12% of the population is ≤9 years old</li> <li>15% of the population is ≥65 years old</li> <li>10% of the population has a disability</li> </ul>	Over 25% of the population in the City of Tucker are vulnerable to extreme heat impacts.
EH14	<b>Extreme Heat and economy</b> Extreme heat event can have a devastating effect on the agricultural industry.	There are 34 farms in DeKalb County which generate approximately \$546,000 in revenue from crop and livestock sales each year.	An extreme heat event can have a devastating effect on DeKalb County's agricultural industry.

### 4.10 – Hazard Risk Summary

The table below outlines each participating jurisdictions' general risk to this plan's profiled hazards. The rankings are based on a composite evaluation of this plan's risk assessment, namely, a hazard's probability of occurring in the future, the vulnerability of a jurisdiction to a specific hazard, the intensity of past

Category	Range (Per Year)
Unlikely	0%
Occasional	1% -10%
Likely	11% - 50%
Highly Likely	51% - 100%



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hazard impacts, and a joint evaluation of local experts and stakeholders. For reference, the probability categories/percentages previously indicated in Illustration are shown to the right.

Table 59: Hazard Risk Summary, DeKalb County

HAZARD RISK SUMMARY, DEKALB COUNTY							
Jurisdictions	Hazards						
	Drought	Earthquake	Extreme Heat	Flood	Severe Winter Weather	Wildfire	Wind
<b>DeKalb County</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Avondale Estates</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Brookhaven</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Chamblee</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Clarkston</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Decatur</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Doraville</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Dunwoody</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Lithonia</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Pine Lake</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Stone Mountain</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Stonecrest</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely
<b>Tucker</b>	Likely	≤2.0 Likely ≥2.0 Occasional	Highly Likely	Highly Likely	Highly Likely	Highly Likely	Highly Likely



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### 4.10.1 – Problem Statement Summary

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
<b>W1</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, over a quarter of DeKalb County residents either live below the poverty line and/or have access and functional needs.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 25% of residents in DeKalb County have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance recovering from the event.
<b>W2</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 23.4% of Avondale Estates residents are aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a quarter of the City of Avondale's residents are at a greater risk for injury due to a high wind event and may require greater assistance recovery from the event.
<b>W3</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 22.4% of Brookhaven residents are children, of which 20% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Brookhaven has a large population of children, of which about 20% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.
<b>W4</b>	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 28.7% of Chamblee residents speak English less than "very well".	Individuals who don't speak English well are more vulnerable to disasters. The City of Chamblee has a large population of residents that do not speak English well and are therefore at a greater risk of injury due to a high wind event.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
W5	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Clarkston, 30.9% of residents live below the poverty line, 32.4% are children, 40.9% do not speak English "very well", and 14.3% of households have no vehicle available.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Clarkston have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W6	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 32.2% of Decatur residents are children, of which 9.1% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Decatur has a large population of children, of which 9.1% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.
W7	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Doraville, 22.8% of residents live below the poverty line, and 42.4% speak English less than "very well".	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Doraville have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W8	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 21.9% of Dunwoody residents are children, of which 10.8% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Dunwoody has a large population of children, of which about 11% live below the poverty line and are at a greater risk for injury due to a high wind event and may require more assistance recovering from the event.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
W9	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Lithonia, 38.9% of residents live below the poverty line, 42.3% are children, and 14.7% have no access to a vehicle.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 38% of residents in the City of Lithonia have low-income and/or functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W10	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 16.8% of Pine Lake's population is aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a 17% of the City of Pine Lake's residents are at a greater risk for injury due to a high wind event and may require greater assistance recovery from the event.
W11	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, 10.9% of Stone Mountain's population have a physical or mental disability. 10.3% have no vehicle available, and 21.8% are children.	Individuals with functional and access needs are more vulnerable to disasters. Over 20% of residents in the City of Stone Mountain have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W12	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Stonecrest, 11.4% of the population have a disability. Also, 26.7% of the population are children, of which 20.3% live in poverty.	Individuals with functional and access needs are more vulnerable to disasters. Over a quarter of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
W13	<b>Wind and People</b> Low-income individuals, older individuals, and individuals with a functional or access need are especially vulnerable to and may require more assistance recovering from wind hazard impacts.	According to the U.S. Census Bureau, in Tucker, 9.5% of residents have a disability. Also, 21.8% of the population are children.	Individuals with functional and access needs are more vulnerable to disasters. Over a 20% of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.





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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
W14	<b>Wind and built environment</b> High wind events are highly likely to occur in DeKalb County each year.	Infrastructure systems and critical facilities are important for life safety, economic viability, disaster response operations, and disaster recovery operations.	Infrastructure systems and critical facilities are vulnerable to wind hazard impacts. A major wind-related disaster in DeKalb County could damage or destroy key lifeline systems, hinder response operations, and prolong recovery operations.
FL1	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (children, elderly, disability, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In DeKalb County and the jurisdictions that lie within its boundaries: <ul style="list-style-type: none"> <li>• 14% of the population is <math>\leq 9</math> years old</li> <li>• 12% of the population is <math>\geq 65</math> years old</li> <li>• 10% of the population has a disability</li> <li>• 9% of the population speak English less than "very well"</li> <li>• 8.6% of households have no vehicle available</li> </ul>	Over 25% of the population in DeKalb County and the jurisdictions that lie within its boundaries are vulnerable to extreme heat impacts.
FL2	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Avondale Estates: <ul style="list-style-type: none"> <li>• 11% of the population is <math>\leq 9</math> years old</li> <li>• 23% of the population is <math>\geq 65</math> years old</li> <li>• 9% of the population has a disability</li> <li>• 2% of the population speak English less than "very well"</li> <li>• 3% of households have no vehicle available</li> </ul>	Over 30% of the population in the City of Avondale Estates are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL3	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Brookhaven: <ul style="list-style-type: none"><li>• 15% of the population is ≤9 years old</li><li>• 10% of the population is ≥65 years old</li><li>• 6% of the population has a disability</li><li>• 17% of the population speak English less than very well</li><li>• 7% of households no vehicle available</li></ul>	Over 25% of the population in the City of Brookhaven are vulnerable to extreme heat impacts.
FL4	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Chamblee: <ul style="list-style-type: none"><li>• 15% of the population is ≤9 years old</li><li>• 8% of the population is ≥65 years old</li><li>• 7% of the population has a disability</li><li>• 29% of the population speak English less than “very well”</li><li>• 9% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Chamblee are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL5	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Clarkston: <ul style="list-style-type: none"><li>• 18% of the population is ≤9 years old</li><li>• 4% of the population is ≥65 years old</li><li>• 8% of the population has a disability</li><li>• 41% of the population speak English less than “very well”</li><li>• 14% of households have no vehicle available</li></ul>	Over 40% of the population in the City of Clarkston are vulnerable to extreme heat impacts.
FL6	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Decatur: <ul style="list-style-type: none"><li>• 18% of the population is ≤9 years old</li><li>• 12% of the population is ≥65 years old</li><li>• 8% of the population has a disability</li><li>• 3% of the population speak English less than “very well”</li><li>• 13% of household have no vehicle available</li></ul>	Over 30% of the population in the City of Decatur are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL7	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Doraville: <ul style="list-style-type: none"><li>• 15% of the population is <math>\leq 9</math> years old</li><li>• 8% of the population is <math>\geq 65</math> years old</li><li>• 5% of the population has a disability</li><li>• 42% of the population speak English less than "very well"</li><li>• 9% of households have no vehicle available</li></ul>	Over 40% of the population in the City of Doraville are vulnerable to extreme heat impacts.
FL8	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Dunwoody: <ul style="list-style-type: none"><li>• 16% of the population is <math>\leq 9</math> years old</li><li>• 14% of the population is <math>\geq 65</math> years old</li><li>• 7% of the population has a disability</li><li>• 8% of the population speak English less than "very well"</li><li>• 5% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Dunwoody are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL9	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Lithonia: <ul style="list-style-type: none"><li>• 22% of the population is ≤9 years old</li><li>• 7% of the population is ≥65 years old</li><li>• 9% of the population has a disability</li><li>• 4% of the population speak English less than “very well”</li><li>• 15% of households have no vehicle available</li></ul>	Over 30% of the population in the City of Lithonia are vulnerable to extreme heat impacts.
FL10	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Pine Lake: <ul style="list-style-type: none"><li>• 17% of the population is ≥65 years old</li><li>• 6% of the population has a disability</li><li>• 1% of the population speak English less than “very well”</li><li>• 2% of households have no vehicle available</li></ul>	Over 15% of the population in the City of Pine Lake are vulnerable to extreme heat impacts.





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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL11	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Stone Mountain: <ul style="list-style-type: none"><li>• 10% of the population is <math>\leq 9</math> years old</li><li>• 9% of the population is <math>\geq 65</math> years old</li><li>• 11% of the population has a disability</li><li>• 6% of the population speak English less than "very well"</li><li>• 10% of households have no vehicle available</li></ul>	Over 20% of the population in the City of Stone Mountain are vulnerable to extreme heat impacts.
FL12	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Stonecrest: <ul style="list-style-type: none"><li>• 15% of the population is <math>\leq 9</math> years old</li><li>• 8% of the population is <math>\geq 65</math> years old</li><li>• 11% of the population has a disability</li><li>• 1% of the population speak English less than "very well"</li><li>• 10% of households have no vehicle available</li></ul>	Over 20% of the population in the City of Stonecrest are vulnerable to extreme heat impacts.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
FL13	<b>Flooding and people</b> Low-income individuals, and individuals with functional and access needs (disability, elderly, children, non-proficient English speakers, no vehicle) are more vulnerable to flood hazard impacts.	In the City of Tucker: <ul style="list-style-type: none"> <li>• 12% of the population is ≤9 years old</li> <li>• 15% of the population is ≥65 years old</li> <li>• 10% of the population has a disability</li> <li>• 13% of the population speak English less than “very well”</li> <li>• 6% of the population have no vehicle available</li> </ul>	Over 25% of the population in the City of Tucker are vulnerable to extreme heat impacts.
FL14	<b>Flooding and people/built environment</b> Nancy Creek has experienced significant flooding six times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from Nancy Creek.	People and structures along Warrenhall Lane, Durrett Way are regularly affected by flooding from Nancy Creek.
FL 15	<b>Flooding and people/built environment</b> Peachtree Creek has experienced significant flooding six times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from Peachtree Creek.	People and structures along Hanover West Drive, Clairmont Road, and Buford Road are regularly affected by flooding from Peachtree Creek.
FL16	<b>Flooding and people/built environment</b> North Fork Peachtree Creek has experienced significant flooding five times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from North Fork Peachtree Creek.	People and structures along Bamby Lane, Cove Circle, Victory Drive, Dunwoody Place, Converse Drive are regularly affected by flooding from North Fork Peachtree Creek.
FL17	<b>Flooding and people/built environment</b> South Fork Peachtree Creek has experienced significant flooding five times since 1997.	Several people, structures, and transportation corridors are at risk for flooding impacts from South Fork Peachtree Creek.	People and structures along Lansbury Village Drive, Orion Drive, Lawrenceville Highway, Noble Drive, Helen Drive, and Kay Lane are regularly affected by flooding from Peachtree Creek.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
WW1	<b>Severe Winter Weather and People</b> Severe winter weather events, especially ice storms, can cause extended power outages in DeKalb County.	According to the U.S. Census Bureau, 37.5% of residents in DeKalb County use electricity as their primary energy source for heating.	Ice and snowstorms often create extended power outages. Extended power outages in the winter creates dangers in the form of cold weather exposure and carbon monoxide exposure from the improper use of gas furnaces and heaters.
WW2	<b>Severe Winter Weather and Economy</b> Severe winter weather events often create hazardous travel conditions.	Between 80% - 90% of DeKalb County residents community to work via roadways.	Snow and ice events in DeKalb County often cause roads to become impassible. southeastern United States where motorist have less experience driving in the conditions and local governments are less equipped to deal with the impacts. Because of this, businesses often close which negatively affects economy.
WW3	<b>Severe Winter Weather and the Built Environment</b> Severe winter weather events, especially ice storms, can cause extended power outages in DeKalb County.	DeKalb County has identified critical facilities which are necessary for the community's response to emergencies and disasters.	Ice and snowstorms often create power outages in DeKalb County. If a power outage affects the community's critical facilities, the ability of governmental officials, first responders, emergency managers, healthcare workers, and other essential workers ability to respond effectively may be hindered.
D1	<b>Drought and Economy</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	Agricultural production generates over a half-million dollars of income for farmers in DeKalb County.	Agricultural production is at a high-risk during drought periods. This risk affects the economy and people of DeKalb County.
D2	<b>Drought and Natural Environment</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	DeKalb County residents and critical facilities depend upon surface and groundwater reservoirs for the community's water supply.	Rivers, streams, and groundwater reservoirs are at a high-risk during drought periods. This risk affects the people, businesses, and critical facilities of DeKalb County.
D3	<b>Drought and Natural Environment</b> Some magnitude of drought is likely to occur in DeKalb County during the next five years.	DeKalb County's natural environment consists of woodland areas. Numerous people live in and around these wooded areas.	Woodlands are at high-risk of wildfire during long-term drought periods. This risk affects people living near the wooded areas.



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Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
WF1	<b>Wildfire and people</b> The Wildfire Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that 467 people are exposed to hazard impacts each year.	Many people in DeKalb County live in areas where human development meets or intermingles with undeveloped wildland. This increases the wildfire risk for people living in DeKalb County and exposes them to dangers associated with wildfires. Wildfire smoke may also generate smoke that can affect air quality. This poses a serious health risk to the elderly, the young, and people with breathing conditions.
WF 2	<b>Wildfire and people</b> The Wildfire Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that \$2,680 work of agriculture are exposed to wildfire hazard impacts each year.	Some businesses and farms are in areas where human development meets or intermingles with undeveloped wildland. This increases the risk to crop, livestock, structures, production, wages, and equipment losses.
WF3	<b>Wildfire and built environment</b> The Wildland Urban Interface (WUI) Index is high in many areas of DeKalb County.	FEMA's National Risk Index (NRI) estimates that \$57,902,948 worth of structures are exposed to wildfire hazard impacts each year.	Some critical facilities, homes, cultural resources, and infrastructure are in areas where human development meets or intermingles with undeveloped wildland. FEMA's National Risk Index (NRI) projects \$1,164 work of structure losses each year due to wildfire hazard impacts. A major wildfire may cause much more damage.
WF4	<b>Wildfire and natural environment</b> The Wildland Urban Interface (WUI) Index is high in many areas of DeKalb County.	DeKalb County consists of numerous natural resources which may be exposed to wildfires.	A major wildfire may destroy parts of DeKalb County's natural environment and cause secondary hazards such as flooding, debris flows, and landslides. This may impact DeKalb County's people, economy, and build environment.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E1	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, over a quarter of DeKalb County residents either live below the poverty line and/or have access and functional needs.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 25% of residents in DeKalb County have low-income and/or functional and access needs and are at a greater risk for injury due to an earthquake and will likely require more assistance recovering from the event.
E2	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 23.4% of Avondale Estates residents are aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a quarter of the City of Avondale's residents are at a greater risk for injury due to an earthquake and may require greater assistance recovery from the event.
E3	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 22.4% of Brookhaven residents are children, of which 20% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Brookhaven has a large population of children, of which about 20% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.
E4	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 28.7% of Chamblee residents speak English less than "very well".	Individuals who don't speak English well are more vulnerable to disasters. The City of Chamblee has a large population of residents that do not speak English well and are therefore at a greater risk of injury due an earthquake.
E5	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Clarkston, 30.9% of residents live below the poverty line, 32.4% are children, 40.9% do not speak English "very well", and 14.3% of households have no vehicle available.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Clarkston have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.





## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E6	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 32.2% of Decatur residents are children, of which 9.1% of live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Decatur has a large population of children, of which 9.1% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.
E7	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Doraville, 22.8% of residents live below the poverty line, and 42.4% speak English less than “very well”.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 40% of residents in the City of Doraville have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E8	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 21.9% of Dunwoody residents are children, of which 10.8% live below the poverty line.	Children and low-income individuals are more vulnerable to disasters. The City of Dunwoody has a large population of children, of which about 11% live below the poverty line and are at a greater risk for injury due to an earthquake and may require more assistance recovering from the event.
E9	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Lithonia, 38.9% of residents live below the poverty line, 42.3% are children, and 14.7% have no access to a vehicle.	Low-income individuals and individuals with functional and access needs are more vulnerable to disasters. Over 38% of residents in the City of Lithonia have low-income and/or functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
E10	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 16.8% of Pine Lake's population is aged 65 or older.	Older individuals are more vulnerable to disasters. Nearly a 17% of the City of Pine Lake's residents are at a greater risk for injury due to an earthquake and may require greater assistance recovery from the event.
E11	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, 10.9% of Stone Mountain's population have a physical or mental disability. 10.3% have no vehicle available, and 21.8% are children.	Individuals with functional and access needs are more vulnerable to disasters. Over 20% of residents in the City of Stone Mountain have functional and access needs, are at a greater risk for injury due to a high wind event and will likely require more assistance to recover from the event.
E12	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Stonecrest, 11.4% of the population have a disability. Also, 26.7% of the population are children, of which 20.3% live in poverty.	Individuals with functional and access needs are more vulnerable to disasters. Over a quarter of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E13	<b>Earthquakes and people</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	According to the U.S. Census Bureau, in Tucker, 9.5% of residents have a disability. Also, 21.8% of the population are children.	Individuals with functional and access needs are more vulnerable to disasters. Over a 20% of residents in the City of Stonecrest have functional and access needs, are at a greater risk for injury due to an earthquake and will likely require more assistance to recover from the event.
E14	<b>Earthquakes and built environment</b> Earthquakes are low-probability, high consequence events for DeKalb County and the jurisdictions that lie within its boundaries.	Infrastructure systems and critical facilities are important for life safety, economic viability, disaster response operations, and disaster recovery operations.	Infrastructure systems and critical facilities are vulnerable to earthquake impacts. A strong earthquake near DeKalb County could damage or destroy key lifeline systems, hinder response operations, and prolong recovery operations.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH1	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In DeKalb County and the jurisdictions that lie within its boundaries: <ul style="list-style-type: none"> <li>• 14% of the population is <math>\leq 9</math> years old</li> <li>• 12% of the population is <math>\geq 65</math> years old</li> <li>• 10% of the population has a disability</li> </ul>	Over 25% of the population in DeKalb County and the jurisdictions that lie within its boundaries are vulnerable to extreme heat impacts.
EH2	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Avondale Estates: <ul style="list-style-type: none"> <li>• 11% of the population is <math>\leq 9</math> years old</li> <li>• 23% of the population is <math>\geq 65</math> years old</li> <li>• 9% of the population has a disability</li> </ul>	Over 30% of the population in the City of Avondale Estates are vulnerable to extreme heat impacts.
EH3	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Brookhaven: <ul style="list-style-type: none"> <li>• 15% of the population is <math>\leq 9</math> years old</li> <li>• 10% of the population is <math>\geq 65</math> years old</li> <li>• 6% of the population has a disability</li> </ul>	Over 25% of the population in the City of Brookhaven are vulnerable to extreme heat impacts.
EH4	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Chamblee: <ul style="list-style-type: none"> <li>• 15% of the population is <math>\leq 9</math> years old</li> <li>• 8% of the population is <math>\geq 65</math> years old</li> <li>• 7% of the population has a disability</li> </ul>	Over 20% of the population in the City of Chamblee are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH5	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Clarkston: <ul style="list-style-type: none"><li>• 18% of the population is <math>\leq 9</math> years old</li><li>• 4% of the population is <math>\geq 65</math> years old</li><li>• 8% of the population has a disability</li></ul>	Over 20% of the population in the City of Clarkston are vulnerable to extreme heat impacts.
EH6	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Decatur: <ul style="list-style-type: none"><li>• 18% of the population is <math>\leq 9</math> years old</li><li>• 12% of the population is <math>\geq 65</math> years old</li><li>• 8% of the population has a disability</li></ul>	Over 30% of the population in the City of Decatur are vulnerable to extreme heat impacts.
EH7	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Doraville: <ul style="list-style-type: none"><li>• 15% of the population is <math>\leq 9</math> years old</li><li>• 8% of the population is <math>\geq 65</math> years old</li><li>• 5% of the population has a disability</li></ul>	Over 20% of the population in the City of Doraville are vulnerable to extreme heat impacts.
EH8	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Dunwoody: <ul style="list-style-type: none"><li>• 16% of the population is <math>\leq 9</math> years old</li><li>• 14% of the population is <math>\geq 65</math> years old</li><li>• 7% of the population has a disability</li></ul>	Over 30% of the population in the City of Dunwoody are vulnerable to extreme heat impacts.



## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH9	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Lithonia: <ul style="list-style-type: none"> <li>• 22% of the population is ≤9 years old</li> <li>• 7% of the population is ≥65 years old</li> <li>• 9% of the population has a disability</li> </ul>	Over 30% of the population in the City of Lithonia are vulnerable to extreme heat impacts.
EH10	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Pine Lake: <ul style="list-style-type: none"> <li>• 17% of the population is ≥65 years old</li> <li>• 6% of the population has a disability</li> </ul>	Over 15% of the population in the City of Pine Lake are vulnerable to extreme heat impacts.
EH11	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Stone Mountain: <ul style="list-style-type: none"> <li>• 10% of the population is ≤9 years old</li> <li>• 9% of the population is ≥65 years old</li> <li>• 11% of the population has a disability</li> </ul>	Over 20% of the population in the City of Stone Mountain are vulnerable to extreme heat impacts.
EH12	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Stonecrest: <ul style="list-style-type: none"> <li>• 15% of the population is ≤9 years old</li> <li>• 8% of the population is ≥65 years old</li> <li>• 11% of the population has a disability</li> </ul>	Over 20% of the population in the City of Stonecrest are vulnerable to extreme heat impacts.





## SECTION 4: RISK ASSESSMENT

Problem Statements			
Number	Area of Focus	Community Characteristic	Problem Statement
EH13	<b>Extreme Heat and people</b> Extreme heat events are dangerous for young children, elderly people, and people with chronic medical conditions like heart disease, mental illness, poor blood circulation, and obesity are most vulnerable to extreme heat impacts.	In the City of Tucker: <ul style="list-style-type: none"> <li>• 12% of the population is ≤9 years old</li> <li>• 15% of the population is ≥65 years old</li> <li>• 10% of the population has a disability</li> </ul>	Over 25% of the population in the City of Tucker are vulnerable to extreme heat impacts.
EH14	<b>Extreme Heat and economy</b> Extreme heat event can have a devastating effect on the agricultural industry.	There are 34 farms in DeKalb County which generate approximately \$546,000 in revenue from crop and livestock sales each year.	An extreme heat event can have a devastating effect on DeKalb County's agricultural industry.

### 4.11 – Excluded Hazards

#### **Coastal Hazards**

Coastal Hazards was excluded from DeKalb County's HMP because it is not a coastal county.

#### **Geological Hazards**

The Georgia Hazard Mitigation Strategy does not identify DeKalb County as being at risk from geological hazards, including landslides. The USGS's landslide risk database also corroborates this claim. Accordingly, the hazard has been excluded from this plan.

**Note:** Human-caused hazards, though identified in the State of Georgia Multi-Hazard Mitigation Plan and Statewide Hazard Assessment, are not included in DeKalb County's previous HMP (2016) nor this plan update. This includes: Communicable Disease.

**Note:** Related to Communicable Disease, as of March 2020, the United States is fighting the coronavirus (COVID-19) pandemic. COVID-19 is a respiratory illness that can spread from person to person. The virus that causes COVID-19 is a novel coronavirus, first identified during an investigation into an outbreak in Wuhan, China. The Georgia Department of Public Health (DPH), in consultation with the Centers for Disease Control and Prevention (CDC), is evaluating patient information received from healthcare providers about potential cases of coronavirus in Georgia. As of March 26, 2020, a State of Emergency that includes a "Shelter in Place" order was declared for DeKalb County. This declaration took effect Thursday, March 26, 2020, and ended on Thursday, April 30, 2020. More information about this pandemic can be found on DeKalb County's website at <https://www.dekalbcountyga.gov/Covid-19/Response>.

### 4.12 – Special Consideration, Climate Change



*Photo Source: Google*

Climate change, as described by the National Aeronautics and Space Administration (NASA), is “a long-term change in the average weather patterns that have come to define Earth’s local, regional and global climates.”

Climate change, as described by the National Aeronautics and Space Administration (NASA), is “a long-term change in the average weather patterns that have come to define Earth’s local, regional and global climates.”

Further, NASA states, “Changes observed in Earth’s climate since the early 20th century are primarily driven by human activities, particularly fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth’s atmosphere, raising Earth’s average surface temperature. These human-produced temperature increases are commonly referred to as global warming. Global warming is the long-term heating of Earth’s climate system observed since the pre-industrial period (between 1850 and 1900) due to human activities, primarily fossil fuel burning, which increases heat-trapping greenhouse gas levels in Earth’s atmosphere.”

Scientific observations, coupled with climate data records, provide evidence of climate change “key indicators.” Among them are global land and ocean temperature increases; rising sea levels; ice loss at Earth’s poles and in mountain glaciers; frequency and severity changes in extreme weather such as hurricanes, heatwaves, wildfires, droughts, floods and precipitation; and cloud and vegetation cover changes, to name a few.

Many of the hazards identified within this update to DeKalb County’s HMP are, in one way or another, potentially affected by climate change. These include Drought, Flood (Inland), Severe Weather (including thunderstorm, hail, lightning, wind, and winter storms) and Tornadoes. Climate change can also have an effect on wildfires, as rising temperatures and drought can create fire tinderboxes.

#### *Health Risks*

Certain people are more vulnerable to emerging climate change impacts. Climate change raises health risks for people with existing physical or mental illness, children, and older adults, those who work outdoors, and those living in areas prone to flooding. Climate change can lead to weather events and conditions that are associated with health hazards such as 1) heat waves, which can cause heat-related illnesses, heat



## SECTION 4: RISK ASSESSMENT

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stroke, and other serious health problems, 2) extreme drought and flooding, 3) disruptions to agriculture, i.e., altered growing and storage conditions requiring changes in crop and livestock species or food production practices.

Given the potential for climate change to increase the frequency and magnitude of natural hazards, FEMA encourages states, regions, counties, and municipalities to consider climate change when mitigating hazards.



### Section 5 – Mitigation Strategy

Each type of plan stakeholder provides a set of capabilities, in some cases broad and in some cases narrow, by which they can increase the planning area's resiliency.

#### ***County and Municipal Governments***

The broadest form of mitigation capabilities come from county and municipal governments. Their inherent legal authority allows them to institute the greatest regulatory and developmental changes.

Planning Process

Local Procedures & Resources

Planning Area

Risk Assessment

Mitigation Strategy

#### ***Institutional Capability***

DeKalb County is a whole community that can implement the mitigation strategies identified herein. In addition, the County can promote the mitigation process, further educating the public about the hazards prevalent to the area, as well as the mitigation process necessary to mitigate those hazards.

In an emergency, county/municipality response is an extraordinary extension of responsibility and action, coupled with normal day-to-day activity. Normal governmental duties will be maintained, with emergency operations carried out by those agencies assigned specific emergency functions under the DeKalb County Local Emergency Operations Plan, or LEOP.

#### ***Political Capability***

During the process of developing this HMP update, opposition to mitigation measures was not evident from DeKalb County, the Cities of Avondale Estate, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain and Tucker, GA, and the many plan stakeholders. The primary limiting factor is funding, which is made more difficult by the current situation in the local, state, and national economy.

DeKalb County, through partnerships with the participating agencies, is well-organized and responsive to community needs. Leadership is informed and remains up to date on the hazards that threaten the area. Citizens who participated in the public meetings and presentations showed a genuine interest in doing things to promote a safer and more resilient community. All (the governing board, staff, and citizen population) appear willing to promote the economic efficiency and social utility of the mitigation measures contained in this plan, if appropriate funding can be identified.

#### ***Technical Capability***

DeKalb County and its participating jurisdiction(s) have the basic technology needed to mitigate and respond to natural disasters. They are equipped with phone and fax lines and a functional Emergency Operations Center (EOC) in case of disaster. Most key persons are equipped with cell phones, which can act as a backup to landlines in case service is lost. The County is connected to the internet, which is a valuable source of information on approaching hazards and mitigation measures. The County sponsors a website where there is a link to the DeKalb County Emergency Management Agency. The County's GIS (mapping) services are limited, but until municipal governments fully implement GIS standard services, appropriate state agencies, like the Georgia Mitigation Information System supported by GEMA, will provide the necessary support.



### ***Fiscal Capability***

The stakeholders of this mitigation plan are not unique in the issues felt by small governments to retain the staff and resources necessary to accomplish the strategies necessary to mitigate local hazards. However, they are aware of potential diverse funding sources available to communities for assisting in the fiscal needs required to implement local hazard mitigation plans, including both government and private programs.

While federal and state programs carry out the bulk of disaster relief programs that provide funds for mitigation, local governments can search for alternative funding sources to supplement the local hazard mitigation budget. The participants in the mitigation planning process are aware that before effective mitigation strategies can be applied, stable funding sources and effective incentives must be established on a per project basis to encourage participation by the private and public sectors.

### ***Land Use Planning***

Through land use regulatory powers granted by the state, local governments can control the location, density, type and timing of land use and development in the community. Provisions of the land use plans are implemented through regulatory tools that include zoning and subdivision ordinances, and taxation. All participating municipal governments have direct land use planning programs through ordinances, codes, and zoning policies.

### ***Taxation***

Taxation can be a powerful mitigation tool by providing local governments with a way to guide development. Tax abatements may be used to encourage landowners and developers to integrate mitigation measures into the process of building new developments and retrofitting existing properties in the floodplain. These tools can be especially effective in encouraging the mitigation of existing structures.

## **5.1 – Floodplain Programs**

Floodplain management is the operation of a community program of measures for reducing flood damage. These measures take a variety of forms; and generally, include zoning, subdivision, or building requirements, and special-purpose floodplain ordinances. The National Flood Insurance Program is aimed at reducing impact of flooding on private and public structures. This is achieved by providing affordable insurance for property owners and by encouraging communities to adopt and enforce floodplain management regulations. These efforts help mitigate the effects of flooding on new and improved structures. Overall, the program reduces the socio-economic impact of disasters by promoting the purchase and retention of Risk Insurance in general, and National Flood Insurance in particular.

The County's Floodplain Administrator administers each NFIP participating community's floodplain program. NFIP Coordinators/Floodplain Administrators utilize by adoption, federally created flood hazard maps to administer their programs and to actuarially rate new construction for flood insurance or development restrictions.

Following is a brief description of the participating jurisdictions Building Code office information and procedures. (Has been requested)

**City of Avondale Estates**– (Has been requested)

**City of Brookhaven** – (Has been requested)

**City of Chamblee** – (Has been requested)

**City of Clarkston** – (Has been requested)





## SECTION 5: MITIGATION STRATEGY

**City of Decatur**– (Has been requested)

**City of Doraville**– (Has been requested)

**City of Dunwoody**– (Has been requested)

**City of Lithonia** – (Has been requested)

**City of Pine Lake**– (Has been requested)

**City of Stone Mountain** – (Has been requested)

**City of Tucker** - (Has been requested)

Unincorporated DeKalb County enforces the local floodplain management ordinance that exceeds requirements set forth by NFIP. The DeKalb County Community Development Agency and the DeKalb County Water System also devote resources to enforce local floodplain management requirements. This ordinance exists as Section 58 of the Official Code of DeKalb County, and in Chapters 409 and 418 of the DeKalb County Development Standards. In DeKalb County, for residential development, 3 feet of freeboard is required between the lowest (habitable) finished floor elevation and the base flood elevation. DeKalb County also regulates new development out of the regulatory floodway; and dam breach zones.

DeKalb County has other floodplain management programs to:

- Determine Dam Breach Zones for high hazard Category 1 Dams
- Require stream buffers that far exceed minimum State requirements
- Acquire chronically flooded homes
- Acquire vacant floodplain land
- Assist Dam Owners financially, to make their high hazard dams safe through DeKalb County's Storage Volume Purchase Program.

In DeKalb County, new residential construction is prohibited within the floodplain and any other construction is restricted. This restriction is enforced through the building permit application process. When an individual or business applies for a construction permit, its location within or outside of an identified floodplain is noted and reviewed by DeKalb County's Stormwater Management Division.

The DeKalb County Stormwater Management Division reviews all plans requiring a land disturbance permit (LDP) for compliance with NFIP and local floodplain regulations. This includes construction adjacent to and within the floodplain. This process meets the minimum federal regulations set forth by the NFIP.

City/County Name	CID/Date
Avondale	130528C/ 05/07/01
Brookhaven	135175F 06/070
Chamblee	130066C/ 06/07/74
Clarkston	130067C/ 02/21/75
Decatur	135159C/ 06/16/70



## SECTION 5: MITIGATION STRATEGY

Doraville	130069C/ 06/07/74
Dunwoody	130679C/ 06/02/70
Lithonia	130472C/ 05/07/01
Pine Lake	130070#/ 06/15/81
Stonecrest	130268C/ 05/15/80
Stone Mountain	130260C/ 08/01/86
Tucker	130681C/ 05/15/80

### 5.2 – Mitigation Goals

Goals for Berrien County and its participating jurisdiction(s) were established based upon results from the local and state risk assessments, stakeholder meetings, and input from non-planning team local jurisdiction and state officials. These goals represent Berrien County and its participating jurisdiction(s)' long-term vision for the continued reduction of hazard risks and the enhancement of mitigation capabilities.

**Goal 1:** Reduce the risk from natural hazard events utilizing community cooperation and an all-hazards approach.

**Goal 2:** Pursue additional, complete, and accurate data in support of mitigation planning, disaster preparedness, disaster response, and disaster recovery operations.

**Goal 3:** Integrate the pre-disaster mitigation plan's findings into the planning, and decision-making processes for all current and future emergency management and preparedness related activities.

### 5.3 – Mitigation Projects

To support its mitigation goals, the DeKalb County Hazard Mitigation Planning Committee (HMPC) identified a comprehensive range of (62) possible mitigation projects and activities (see Table 62) in this plan update for details). The selected set carefully takes an all-hazards approach to mitigation while simultaneously addressing each of the plan's profiled hazards.

The 2012 DeKalb County Hazard Mitigation Plan (update) contained a risk assessment of identified hazards for the County and participating municipalities, and a mitigation strategy to address these hazards' risk and vulnerability. Accordingly, an open discussion took place with the HMPC during the planning phase to determine the current mitigation action/priorities to include in this plan update. Among them, and considered a key part of the planning process, DeKalb County Emergency Management solicited participation from the County's participating jurisdictions and stakeholders in order to help identify mitigation activities/goals/projects for plan inclusion. Typically, mitigation activities/goals/projects focus on strengthening infrastructure and facilities. DeKalb County's jurisdictions and stakeholder's participation in the activities related to the mitigation strategy allowed for EMA to learn more about each jurisdictions' needs, facilities, and infrastructure. A Mitigation Strategy Update Meeting facilitated by DeKalb County EMA and BOLDplanning, provided DeKalb County's jurisdictions with information on how to offer valuable insight related to the hazards within the County. The DeKalb County mitigation planning points of contact (POCs) learned how BOLDplanning would assist them in providing input to update the mitigation projects from the previous plan as well as how and when to offer any new/proposed projects to include in the current HMP update.



## SECTION 5: MITIGATION STRATEGY

Following this meeting, representatives from BOLDplanning worked with the DeKalb County EMA and the County's participating jurisdictions to provide updates relevant to previous mitigation projects (2012), including the current status (completed, deferred, or carryover). The HMPC was also tasked with identifying any new mitigation projects for this plan update and entering them into the BOLDplanning.com platform created specifically for DeKalb County, DekalbReady.com. During the planning process, DeKalb County was able to update the online system with its mitigation projects from the 2012 plan update along with the new/proposed projects for the next five-year plan cycle.

The list of mitigation projects and actions selected for this plan update is based upon the potential to reduce risk to life and property with an emphasis on new and existing infrastructure, ease of implementation, community and agency support, consistency with local jurisdictions' plans and capabilities, available funding, vulnerability, and total risk.

As with previous HMP updates (2012), the planning area will continue to take a multi-jurisdictional approach to mitigation planning with this update and subsequent ones. The goals and objectives for the County and its participating jurisdictions will continue to no longer differentiate from that of the County in order to facilitate a more thorough and standardized approach to mitigation planning. This plan update includes "carryover" projects from DeKalb County's previous HMP (2012), as they are still relevant, in progress, or ongoing. Also, the hazards, mitigation goals, objectives, and measures that were developed jointly between Berrien County and Cities of Atlanta, Avondale Estates, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stonecrest, Stone Mountain, and Tucker, (in the previous plan - 2012) have been carried over to this plan update due to being deferred because of a lack of funding and/or resources to complete the mitigation projects/actions during the last five-year cycle. All priorities can be assessed using STAPLE+E for this plan update to ensure that the projects reflect current priorities. More details on these projects can be found in Section 5 – Mitigation Strategy.

For further information on evaluation criteria for the proposed and carry over mitigation projects/actions, please see Section 5.4 – Mitigation Project Evaluations & Prioritization. Mitigation Projects can be prioritized by STAPLE+E score for each mitigation project in all jurisdictions.

*Note: Some projects and actions mitigate risk and vulnerability to multiple hazards. Some projects and actions list participating jurisdictions which are only at risk from one or more mitigated hazards. For instance, the project: "Provide public outreach, education and awareness programs related training materials to better educate the public as part of a public awareness campaign about natural hazards of All-Hazards mitigate against multiple hazards, including drought, hazardous materials, flooding (inland), severe weather, tornadoes, dam failure, wind, and terrorism"*

### 5.4 – Mitigation Project Evaluations & Prioritization

#### 5.4.1 – STAPLE+E

Berrien County and its participating jurisdiction(s)' primary hazard risks, and thus priorities are dam failure, droughts, flood (inland), earthquakes, geological hazards, heat wave, severe weather, severe winter weather, tornado, tropical systems, wildfire/urban interface fires, and wind.

A composite evaluation matrix was used to prioritize Berrien County and its participating jurisdiction(s)' mitigation projects and activities. The evaluation was conducted for each mitigation project and activity for each participating jurisdiction. All priorities were re-assessed using STAPLE+E for this plan update to ensure that the projects reflect current priorities. The composite evaluation matrix comprises the three factors detailed below.



## SECTION 5: MITIGATION STRATEGY

The first factor is the STAPLE+E evaluation which is best for measuring feasibility and ease of implementation. The tables in Section 5.4.1 provide the STAPLE+E evaluation criteria and the evaluation itself.

The second factor is the effectiveness of the mitigation project. How well does it mitigate the impact of a particular hazard? This is determined by its ability to protect citizens, property, and systems. For instance, wires installed to pin down trees and other objects will reduce their ability to become uprooted or take flight during hazards of high wind but are not as effective at reducing impacts from tornadoes or strong winds as are properly constructed and reinforced buildings. This factor is rated as: Low = 0.5, Medium = 1, and High = 1.5.

The third factor is a hazard risk-based evaluation. It draws on the hazard risk summary found in Section 4.3 of this plan. Each risk rating is assigned a value based on the assessment (None = 0, Low = 5, Medium = 10, and High = 15).

$$(HRT) = (HR1 + HR2 + HRn)$$

The total evaluation score is based on the hazard risk total multiplied by the effectiveness factor, added to the STAPLE+E score.

**Hazard Risk Total (HRT):** The sum of values (low through high) of each hazard the project is designed to mitigate.

**Mitigation Project Effectiveness (MPE):** A multiplier based on the project's effectiveness to mitigate against a chosen hazard.

**STAPLE+E Evaluation:** A raw score comprised of positive and negative feasibility.

$$(Priority) = (STAPLE+E) + (MPE * HRT)$$

Upon completing the evaluations, a composite score is calculated and prioritized based on their total score (Low = 0 – 25, Medium = 26 – 50, High = > 50)



## SECTION 5: MITIGATION STRATEGY

Table 60: STAPLE+E Criteria

STAPLE+E Criteria	
Evaluation Category	Sources of Information
<b>Social</b>	Mitigation actions are acceptable to the community if they do not adversely affect a particular segment of the population, do not cause relocation of lower income people, and if they are compatible with the communities' social and cultural values.
<b>Technical</b>	Mitigation actions are technically most effective if they provide long-term reduction of losses and have minimal secondary adverse impacts.
<b>Administrative</b>	Mitigation actions are easier to implement if the jurisdiction has the necessary staffing and funding.
<b>Political</b>	Mitigation actions can truly be successful if all stakeholders have been offered an opportunity to participate in the planning process and if there is public support for the action.
<b>Legal</b>	It is critical that the jurisdiction or implementing agency have the legal authority to implement and enforce a mitigation action.
<b>Economic</b>	Budget constraints can significantly deter the implementation of mitigation actions. Hence, it is important to evaluate whether an action is cost-effective, as determined by a cost-benefit review, and possible to fund.
<b>Environmental</b>	Sustainable mitigation actions that do not have an adverse effect on the environment, that comply with Federal, State, and local environmental regulations, and that are consistent with the community's environmental goals, have mitigation benefits while being environmentally sound.





## SECTION 5: MITIGATION STRATEGY

Table 61: Previous Projects, not being carried over

Previous Project	Jurisdiction	Hazard Addressed	Project Status/Carried over
FLD #1: Cooperating technical Partner-Georgia Flood Map Modernization Program	Brookhaven	Flood	Completed/do not carry over
FLD #2: Stormwater System Inventory and Assessment	Brookhaven	Flood	Completed/do not carry over
FLD #3: South Bamby Lane watershed improvements	Brookhaven	Flood	Completed/do not carry over
FLD #4: Evaluation of Dresden Drive Culvert at North Fork Peachtree Creek tributary A	Brookhaven	Flood	Completed/do not carry over
FLD #1: Drainage improvements at Peachtree Industrial Blvd	Chamblee	Flood	Completed/do not carry over



## SECTION 5: MITIGATION STRATEGY

Table 62: Mitigation Projects for the New HMP Cycle

Project Name	Jurisdiction	Project Update	Hazard Addressed	Responsible Department	Cost Estimate	Timeline	Potential Funding Source	Comment
City's stormwater system require the installation of catch basins, inlets, curbing, downstream storm lines and other methods of diverting storm water at various locations	Avondale Estates	Deferred due to lack of funding	Flooding; Severe Weather; Tropical Systems	Avondale Estates	\$1,000,000 - \$50,000,000	2022-2027	Local funding	New contact: Kristen Moretz kmoretz@avondaleestates.PAUL Hanebuth/404)294-5400
Education and Awareness: ET-2 Increase Awareness of Extreme temperature risk and safety	Avondale Estates	New	All hazards	Avondale Estates	Staff time and resources	2022-2027	Local Funding	Educating citizens regarding the dangers of extreme heat and cold and the steps they can take to protect themselves when extreme temperatures occur.
ET-3 Assist Vulnerable Populations, Measures should be taken to ensure vulnerable populations are adequately protected from the impacts of extreme	Avondale Estates	New	All Hazards	Avondale Estates	Staff time and resources	2022-2027	Local Funding	Requiring minimum temperatures in housing/landlord codes. Encouraging utility companies to offer special arrangements for paying heating bills, if not already required by state law.



## SECTION 5: MITIGATION STRATEGY

temperatures								
GEN #1: City Facility Feasibility Study and Development of Permanent Facilities	Brookhaven	In Progress	All Hazards	City Manager, Council, and City Departments	\$150,000 - \$300,000	2022-2027	Local Funding	
Adopt County Hazard Mitigation Plan	Brookhaven	New	All Hazards	County EMA	Staff resources	2022-2027	Local Funding	
FLD #2: Floodplain Property Acquisitions	Chamblee	Deferred	Flood	City Administrator or Floodplain Manager	\$150,000 - \$300,000	2022-2027	Local Funding	Chamblee would like to coordinate with the county to incorporate some properties within the City of Chamblee into the County's existing property acquisition program.
FLD #3: Map of Storm Drain System	Chamblee	In Progress	Flood	Chamblee Public Works	Staff resources	2022-2027	Local Funding	Conduct a survey of the storm drains in the city. Mark locations with GPS and input into a GIS database. Map the remaining portions of the system including pipes and pipe sizes, flow direction, etc. Work with the county to resolve any boundary discrepancies, as the City of Chamblee has locations of both inflow and outflow that are shared with the County



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GEN #1: Ongoing Program for Transporting Seniors during Extreme Weather	Chamblee	In Progress	All Hazards	Chamblee Parks and Recreation	\$150,000 - \$300,000	2022-2027	Local Funding	The City of Chamblee already has a program in place, operated by Parks and Recreation, which heats the Civic Center during ice storms, and picks up the senior citizens from their homes and delivers them to the Civic Center. The City will continue to operate this program into the future. The City will also expand this program to operate during extreme heat events, in the event that there is a power outage, or for senior citizens who do not have air conditioning.
Gen #2: Identify Overnight Shelters	Chamblee	Ongoing	All Hazards	Chamblee Parks and Recreation	Staff resources	2022-2027	Local Funding	The City of Chamblee will attempt to identify other possible locations for sheltering needs. If none are found, Chamblee will attempt to find other solutions to the overnight sheltering needs of its citizens, including possible resources for bringing cots or beds to the Civic Center.
WIN #1: Extension of County's Tornado	Chamblee	Deferred	Wind	Chamblee Parks and Recreation	Staff resources	2022-2027	Local Funding	Coordinate with the County to bring a warning siren into or near the borders of



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Warning Siren Project								Chamblee so that all the hearing residents of the City are aware of approaching tornadoes.
WIN #2: Civic Center Roof Retrofit	Chamblee	Deferred	Wind	Chamblee Parks and Recreation	\$1,000,000 - \$10,000,000	2022-2027	Local Funding	Retrofit the roof on the Civic Center in order to withstand more serious/stronger wind events.
FLD #1: Stormwater System Infrastructure Improvements	Decatur	In Progress	Flood	Public Works - Jennings Bell, Project Civil Engineer	\$1,700,000 in Stormwater Utility -capital outlay budget	2022-2027	Annually in Stormwater Utility Fund Budget	We have applied for a FEMA grant for a flood prone property with a repetitive flood loss history at 475 Landover Drive. We are waiting to hear if we receive the grant. We do have the matching funds in our budget.
FLD #2: Flood-Prone Property Acquisition	Decatur	In Progress - FEMA Application	Flood	Public Works - David Junger, Assistant City Manager	Approximately \$800,000	2022-2027	Pending FEMA Approval FY22/23 Budget	
ICE/WIND #1: City Tree Maintenance	Decatur	On Going	Wind	Public Works - Kay Evanovich, City Arborist	Approximately \$75,000 annually for tree removal and tree maintenance	2022-2027	Annually General Fund Budget	We are also working to implement the capital improvement program outlined in the Stormwater Master Plan.
Extreme Temperatures ET-1: Urban Heat Island	Decatur	On Going	Extreme Temperature	Public Works - Kay Evanovich, City Arborist	\$5,000-\$10,000	2022-2027	Annually General Fund Budget	





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Effect								
Extreme Temperatures ET-2: Increase Awareness of Extreme Temperature Risks and Safety	Decatur	On Going	Extreme Temperature	Public Works - Kay Evanovich, City Arborist David Nifong, Energy and Sustainability Manager	\$10,000 FY21/22 \$20,000 FY22/23 Heat Study and data review	2022-2027	FY21/22 for purchase of heat sensors to better understand heat island effects throughout the city	An item not listed but I am not sure if it should be added somewhere is our work to install solar/battery backup systems for our critical city facilities to insure backup power during power outages related to events describe in the mitigation plan. We are actively working on two projects: 1) Public Works, 2) Decatur Recreation Center.
SW-4 Protect Power Lines and Infrastructure: Installing redundancies, Power Resiliency	Decatur	Solar and Battery Power Resiliency projects: Police Department 2023-2024, Recreation Center 2023, Public Works facility 2022	Severe Wind	Public Works - David Nifong, Energy and Sustainability Manager	\$1,250,000 Capital Improvement Fund	2022-2027	Projects underway for FY21/22, FY22/23, FY23/24	Replace culverts and downstream storm lines with a system that provides adequate capacity to provide relief for minor localized flooding.
FLD #2: Stormwater System Infrastructure	Dunwoody	In Progress	All Hazards	Dunwoody Public Works	\$1,000-000 - \$50,000,000	2022-2027	Local Funds	Replace culverts and downstream storm lines with a system that provides adequate



## SECTION 5: MITIGATION STRATEGY

Improvements								capacity to provide relief for minor localized flooding.
FLD #3: Floodplain Mapping	Dunwoody	In Progress	All Hazards	Dunwoody Public Works	Staff time and resources	2022-2027	Local Funds	Update the floodplain maps in conjunction with FEMA using the most current data and calculation techniques. Additionally, expanding the data to include the "Future" floodplain based on a comprehensive plan.
FLD #4: Flood-Prone Property Acquisition	Dunwoody	In Progress	All Hazards	Community Development Department and Public Works	\$1,000-000 - \$50,000,000	2022-2027	Local Funds	Remove structures from floodplain and return area to its natural state
FLD #1: Map of Storm Drain System	Doraville	In Progress	Flood	Doraville Maintenance/Inspection	Staff time and resources	2022-2027	Local Funds	Conduct a survey of, at a minimum, the storm drains in the city. Mark locations with pinpoints on the city map. With additional funds, map the remaining portions of the system including pipes and pipe sizes, flow direction, etc.
FLD #2: Storm Drain Infrastructure	Doraville	In Progress	Flood	Engineering Consultant/Contracting w/ DeKalb County	\$1,000-000 - \$50,000,000	2022-2027	Local Funds	Implement a priority list of outdated or faulty storm drain infrastructure and start replacing outdated or faulty storm drain infrastructure.



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LIT #1: Surge Protection	Doraville	In Progress	Flood	Doraville Maintenance	\$1,000-000 - \$50,000,000	2022-2027	Local Funds	Determine which facilities in the City are at risk for such a lightning strike, and which would most seriously be impacted by such an event. Implement a program to install surge protection where it is needed most.
ICE/WIN #1: Tree Trimming Program	Doraville	In Progress	Flood	Doraville Maintenance/P ower Companies	\$150,000 - \$300,000	2022-2027	Local Funds	Implement a tree-trimming program. Work with power companies to identify those branches that are threatening power lines. Perform some outreach to the community so residents know to call and report limbs that may threaten roads and other infrastructure
Adopt County hazard mitigation plan	Tucker	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	
Continue to participate in the NFIP	Tucker	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	
Educational Outreach for preparedness events for the jurisdiction	Tucker	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	
FLD #1:	Stone	On Going	Flood	Stone	\$1,000,000 -	2022-2027	Local Funding	P.O.Contact, Jeff



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Increase Capacity of Stormwater Infrastructure	Mountain			Mountain Public Works	\$50,000,000			Mueller, PE
FLD #2: Repair Existing Stormwater Infrastructure	Stone Mountain	On Going	Flood	Stone Mountain Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	P.O.Contact, Jeff Mueller, PE
WIN/ICE #2: Tree Pruning Program	Stone Mountain	On Going	Wind	Stone Mountain Public Works	\$150,000 - \$300,000	2022-2027	Local Funding	P.O.Contact, Jeff Mueller, PE
ICE #1: Maintain treatment Capability	Stone Mountain	On Going	Winter	Stone Mountain Public Works	Staff resources	2022-2027	Local Funding	P.O.Contact, Jeff Mueller, PE
FLD #1: Construct flood control structures which address the flooding problem at Max Cleland Blvd and the Railroad Tracks	Lithonia	Deferred	Flood	Lithonia Maintenance	\$150,000 - \$300,000	2022-2027	Local Funding	The City will assemble a sub-committee to explore the use of Hazard Mitigation Funds in conjunction with other grants to fund the project. Once funds are secured it will be the Maintenance department who oversees the construction and completion of the project. The actual construction will be completed by an entity other than the City.
WND #1: Retrofit Critical Facilities to protect first	Lithonia	Deferred	Wind	Outside Contractor	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Installation of storm shutters, replacement of doors amongst other structural improvements.



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responders in a wind event								
ICE #1: Improve drainage to prevent icing of roads during winter events	Lithonia	Deferred	Winter Storm	Lithonia Maintenance	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	In conjunction with Action 1, coordinate to prevent icing of roadway under the railroad bridge. Also, identify other areas and address them as necessary
FLD #1: Hydrology and Hydraulic	Pine Lake	In Progress	Flood	Pine Lake Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Hire a consultant to analyze Snapfinger Creek and its watershed. Determine peak flows, and determine location of 100-year floodplain along the creek. Create some informal maps showing where this is expected to be. Possibly analyze other recurrence intervals in addition to the 100-year event.
FLD #2: Stream Restoration	Pine Lake	In Progress	Flood	Pine Lake Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	The process of restoring the stream is an ongoing project, already being performed by the City of Pine Lake.
FLD #3: Land Acquisition for Detention	Pine Lake	In Progress	Flood	Pine Lake Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Implement best solution proposed in H&H study (see previous Action # FLD 1)
Commission a study to determine the	City of Clarkston	In Progress	Flood	Clarkston Public Works	\$150,000 - \$300,000	2022-2027	Local Funding	





## SECTION 5: MITIGATION STRATEGY

cause of the flooding and after affected pooling areas and recommend solutions to the problem.								
Commission a study with a structural engineer to survey the buildings to make recommendations on the structural integrity of the buildings for upgrades and expansions.	City of Clarkston	In Progress	Extreme Heat, Flooding, Hurricanes, Tornados, Winter Storms, Windstorms	Clarkston Public Works	\$150,000 - \$300,000	2022-2027	Local Funding	
FLD #1: Norman Road Drainage Study	City of Clarkston	In Progress	Flood	Clarkston Public Works	\$150,000 - \$300,000	2022-2027	Local Funding	Commission a study for determining the cause of flooding in the Norman Road neighborhood. The study will recommend possible solutions to the problem. Eventually one of the solutions will be implemented to solve the problem.
FLD #2: Flooding South of Montreal Road	City of Clarkston	In Progress	Flood	Clarkston Public Works	\$150,000 - \$300,000	2022-2027	Local Funding	Study the flooding source and the surrounding drainage system to determine the likely cause of flooding



## SECTION 5: MITIGATION STRATEGY

								and to determine some possible solutions to the problem. Determine the best solution and implement it.
FLD #3: Acquisition of Property on Hill Street	City of Clarkston	Deferred	Flood	Director of Public Works: Mike Shipman	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Acquire the property at 3489 Hill Street and permanently turn the property into open space.
FLD #4: Purchase Clark Lake	City of Clarkston	In Progress	Flood	Clarkston Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Purchase the lake from the homeowner's association and maintain it (dredge first, then prevent further siltation) to keep the lake from flooding.
GEN #2: Right-of-Way Determination and Possible Acquisition	City of Clarkston	In Progress	All Hazards	Clarkston Public Works/Planning, also Administration Department	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	A survey should be taken to determine precisely where the cities right-of-way currently lies. Next, those areas that would most benefit from an expanded right-of-way should be identified, and steps should be taken to acquire those pieces of land.
THD #2: Retrofit of Police Station to Protect Against Wind Damage	City of Clarkston	Deferred	Wind	Clarkston Public Works	\$1,000,000 - \$50,000,000	2022-2027	Local Funding	Hire a structural engineer to survey the building and make recommendations. Secure funds for the retrofit.



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Continue to enforce building and sign ordinances with contractors and require them to build at minimum safe wind speeds	City of Clarkston	New	Windstorms, Tornadoes	City of Clarkston	Staff resources	2022-2027	Local Funding	
Outreach coordination with residents and property owners in loss area and flood zones for compliance updates with Digital Flood Insurance Rate Maps (DFIRM)	City of Clarkston	New	Flooding, Winter storms	City of Clarkston	Staff resources	2022-2027	Local Funding	Update Floodplain maps when required
Continue to coordinate with building officials to enforce building codes and flood management regulations to maximize property and safety of residents for flood insurance programs	City of Clarkston	New	Flooding, Thunderstorms	City of Clarkston	Staff resources	2022-2027	Local Funding	Floodplain management regulations
Update the	City of	New	Flooding,	City of	Staff	2022-2027	Local funds	Update Stormwater



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stormwater mitigation plan to ensure consistency with Digital Flood Insurance Rate Maps (DFIRM)	Clarkston		Thunderstorms	Clarkston	resources			Mitigation Plan
Perform an analysis of additional back up or alternative power resources for the city	City of Clarkston	New	Winter Weather, Thunderstorms, Tornado	City of Clarkston	Staff resources	2022-2027	Local funds	Backup Power
Develop services to monitor, update map and utilize GIS systems that will coordinate with citywide subscriptions of notifications to make city aware of actions for services of weather events.	City of Clarkston	New	Winter Weather, Thunderstorms, Tornado	City of Clarkston	Staff resources	2022-2027	Local funds	Mapping/ Notification Services
Create a survey to determine plan of actions for business owners for natural disaster emergencies	City of Clarkston	New	All Hazards	City of Clarkston	Staff resources	2022-2027	Local Funding	Encourage business owners to create emergency plans
Create a tool to	City of	New	Flooding,	City of	Staff	2022-2027	Local Funding	Update Stormwater



## SECTION 5: MITIGATION STRATEGY

monitor and protect city facilities that are prone to flooding	Clarkston		Winter Weather, Thunderstorms, Tornado, Fire	Clarkston	resources			Mitigation Plan
Adopt County hazard mitigation plan	Stonecrest	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	Adopt County hazard mitigation plan
Continue to participate in the NFIP	Stonecrest	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	Continue to participate in the NFIP
Educational Outreach for preparedness events for the jurisdiction	Stonecrest	New	All Hazards	EMA	Staff resources	2022-2027	Local Funding	Educational Outreach for preparedness events for the jurisdiction
Lightning protection devices and methods, such as lightning rods and grounding on communications infrastructure	DeKalb; all jurisdictions	New	Lightning	DeKalb County 911	\$150,000 - \$300,000	2022-2027	Local Funding	
Increase Awareness of Flood risk and	DeKalb; all jurisdictions	New	Flood	DeKalb EMA	Staff resources	2022-2027	Local Funding	Educating citizens about safety during flood conditions, including the





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Safety								dangers of driving on flooded roads.
Encouraging homeowners to install carbon monoxide monitors and alarms.	Dekalb; all jurisdictions	New	Winter Weather	DeKalb EMA	Staff resources	2022-2027	Local Funding	Using outreach programs to advise homeowners of risks to life, health, and safety
Informing the public about severe winter weather impacts	Dekalb; all jurisdictions	New	Winter Weather	DeKalb EMA	Staff resources	2022-2027	Local Funding	
Lightning protection devices and methods, such as lightning rods to be used to warn visitors in order to seek refuge	Dekalb; all jurisdictions	New	Flood	DeKalb Parks and Recreation	\$150,000 - \$300,000	2022-2027	Local Funding	
Generators to serve as backup power for DeKalb County Parks and Rec.Parks and recreation centers throughout the county	Dekalb; all jurisdictions	New	Winter Weather, Thunderstorms, Tornado	DeKalb Parks and Recreation	\$150,000 - \$300,000	2022-2027	Local Funding	



## *SECTION 5: MITIGATION STRATEGY*

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### 5.5 – Planning Integration

Mitigation does not end at plan approval. Plan approval is only the beginning. The successful implementation of any number of mitigation activities and projects requires the coordination and collaboration of a number of local agencies, departments, and organizations. Each group has varying decision-making processes and authorities governing their actions. This plan, once approved, must be integrated into their decision-making processes as a tool for improving their respective resiliencies.

DeKalb County intends to incorporate this DeKalb County Hazard Mitigation Plan (update) into other planning documents the County and participating jurisdiction(s) utilizes. Where applicable, portions of the previous HMP were considered for incorporation into other local plans and programs. This includes some form of incorporation into the [DeKalb County, GA Comprehensive Plan Update](#) (December 2018). The DeKalb County, GA Comprehensive Plan, which focuses on land use and community development, is required of all local governments by the Georgia Department of Community Affairs (DCA). The DeKalb County Hazard Mitigation Plan Update (2022) will be included in the DeKalb County, GA, and the Cities of Avondale Estate, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain, and Tucker, GA Comprehensive Plans.

Portions of this HMP (update) may also be integrated into the DeKalb County Local Emergency Operations Plan (LEOP), emergency plans for the Cities of Avondale Estate, Brookhaven, Chamblee, Clarkston, Decatur, Doraville, Dunwoody, Lithonia, Pine Lake, Stone Mountain, and Tucker, GA, and other existing or future public safety-related plans. This plan is not only useful for implementing mitigation activities and projects but also critical in creating development plans and capital improvement projects. The risk assessment in this plan can prevent unmanaged and dangerous development in identified hazard areas or other portions of the planning area that decrease a community's overall resiliency.

#### ***Democratic Governments and Boards***

These organizations rely on agenda proposals, deliberation, and discussion, and voting to solidify their decision-making. This type of decision-making makes up the majority of DeKalb County's participating jurisdiction(s)' and stakeholders.

This plan should be integrated into proposed agendas and cross-referenced during deliberation and discussion of the proposed activity. By using this plan's risk assessment, development and capital improvement projects can be appropriately implemented taking into consideration a community's resiliency.

This DeKalb County Multi-Jurisdictional Hazard Mitigation Plan (update) will be incorporated into existing planning mechanisms in varying processes. These processes will be tailored to the unique characteristics of the planning mechanism and the governing structure of DeKalb County and its participating jurisdiction(s).

#### ***Budget Reviews***

DeKalb County's budget cycle begins October 1 and runs through September 30<sup>th</sup>. The annual budget review period for the County begins in February and is adopted in July for the upcoming year. During this period, each adopting jurisdiction will review this and future multi-jurisdictional mitigation plans and conduct a feasibility and resiliency review of the suggested mitigation actions and projects.

DEMA will assist in the process as needed or requested by the jurisdiction(s), providing grant or other funding opportunities, technical assistance, and other relevant support.



## SECTION 5: MITIGATION STRATEGY

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### ***Emergency Management Planning***

DeKalb County and all municipalities work together as a team during all four phases (Mitigation, Planning, Response and Recovery) of emergency management. Other governing bodies and partners such as the Insert organization, insert organization, insert organization, and Georgia Power, and insert organization are also included in emergency planning and response. Public input is always accepted and appreciated.

### ***Mitigation Projects & Actions Implementation***

Upon adoption of an HMP plan or other emergency management-related plans, DEMA will notify all participating jurisdictions when the next mitigation planning committee (MPC) meeting topic will be reviewing mitigation project and action selections. Each jurisdiction then approves a list of mitigation actions and projects they want to pursue according to the mechanism listed in the table on the following page. During the MPC meeting, DEMA will assist the jurisdictions in determining which grant program and path will be appropriate for the project. After selection, the jurisdictions return to DEMA for assistance on funding and managing the project. If additional funding is necessary, the jurisdictions will have to return to their community and pass a resolution to secure the funding. The resolution is subject to the process listed in table on the following page.

DEMA may provide technical assistance in every facet from project inception to completion as well as working with other external organizations for tasks such as grant writing, project monitoring, and project management where appropriate.



## APPENDIX A: DATA RESOURCES & REFERENCES

DeKalb County Comprehensive Plan, DeKalb County 2050 Unified Plan

City of Avondale Estates Comprehensive Plan Update (2021)

City of Brookhaven Comprehensive Plan Update (2019)

City of Chamblee Comprehensive Plan 2034

City of Clarkston Comprehensive Plan 2040

City of Decatur Comprehensive Plan

City of Dunwoody Comprehensive Plan

City of Lithonia 2020 Comprehensive Plan Update

City of Pine Lake Comprehensive Plan

City of Stonecrest Comprehensive Plan

City of Tucker - Comprehensive Plan

City of Stone Mountain Comprehensive Plan 2021

## APPENDIX B: PUBLIC PARTICIPATION

Throughout the planning process, stakeholders, including the public, were encouraged to take part in various meetings and surveys. Following is information pertaining to these activities:

***Hazard Mitigation Plan Update Kick-Off and Public Information Meeting, October 7, 2021*** – Hosted by BOLDplanning and conducted remotely using Zoom® web conferencing due to ongoing COVID-19 concerns, this meeting was open to DEMA, the MPC, and the public. Prior to the meeting, a public announcement ran for two weeks on DEMA's Next Door social media page and DeKalb County's Facebook page. During the meeting, everyone was encouraged to ask questions, voice concerns, and provide input to the mitigation plan update. Of the 48 people in attendance, one (1) was from the public. BOLDplanning worked with the MPC to collect contact information, hazard history, facility information, and other pertinent jurisdictional information.

Following is the invitation to the October 7, 2021, meeting.





480 Duke Drive, Suite 130  
Franklin, TN 37067-2700  
(615) 469-5558  
www.BOLDplanning.com

#### DeKalb County, GA Hazard Mitigation Plan Kick Off Meeting

Hazard Mitigation planning is an initiative to lessen the impact of natural hazards that the County and its jurisdiction face. This is done by completing an assessment of the hazards and how vulnerable the County is to those hazards. The next step is to develop mitigation projects for each hazard that affects the County and its jurisdictions. Best of all, by completing an approved Hazard Mitigation Plan it will open a stream of funds for the County.

This is where each one of you comes in!

Due to your intimate knowledge of the region, we will need your input into the plan. By participating in the planning meeting, you will be able to share ideas and experiences with other community members and add valuable input to the planning process.

To learn more, please join us at the meeting.

The kick-off meeting will be held virtually on Wednesday, September 15, 2021, via Zoom and will last from **1:00 pm – 2:30 pm EST**.

Please Register in Advance [here](https://us02web.zoom.us/j/84486477089) or copy and paste the following link into your browser: (<https://us02web.zoom.us/j/84486477089>).



An email confirmation will follow your registration with information about attending the kick-off meeting.

If you wish to invite someone who was not on the invited list, please reach out to Emily Long from BOLDplanning for approval.

For any questions related to the upcoming DeKalb County, GA HMP Kick-Off Meeting, please contact the contractor Emily Long whose email is [Emily\\_c@boldplanning.com](mailto:Emily_c@boldplanning.com).

In attendance of the October 7, 2021 meeting were the following individuals.



#### SIGN IN SHEET

EVENT: \_DeKalb County, GA HMP Stakeholder Kickoff Meeting\_ DATE / TIME: \_October 6, 2021 / 1:00PM -2:00PM EST

Zoom Meeting ID: 84486477089		DeKalb County, GA Hazard Mitigation Plan Update Kick-off Meeting		10/06/2021 11:35:53 AM	10/06/2021 12:55:59 PM
Number	Participant Name	Organization	Title	User Email	Total Duration on Kickoff Call (Minutes)
1	Emily Long (BOLDplanning Meeting Room 6)	BOLDplanning, Inc.	Project Manager/Mitigation Project Lead	<a href="mailto:meeting6@boldplanning.com">meeting6@boldplanning.com</a>	149
2	Will Minkoff	BOLDplanning, Inc.	Regional Director	<a href="mailto:will@boldplanning.com">will@boldplanning.com</a>	11
3	James Wouffe	BOLDplanning, Inc.	Manger, Global Solutions	<a href="mailto:meeting6@boldplanning.com">meeting6@boldplanning.com</a>	149
4	Michael Amberson	BOLDplanning, Inc.	Project Support	<a href="mailto:Michael.amberson_c@boldplanning.com">Michael.amberson_c@boldplanning.com</a>	61
5	Yolanda Harkley	DeKalb County, GA Emergency Management Agency	Emergency Management Specialist	<a href="mailto:yaharkley@dekalbcountyga.gov">yaharkley@dekalbcountyga.gov</a>	74
6	DC Ward	DeKalb County, GA Emergency Management Agency	Deputy Director	<a href="mailto:dward@dekalbcountyga.gov">dward@dekalbcountyga.gov</a>	108
7	Chief J.K. Cox	DeKalb County, GA Emergency Management Agency	Director	<a href="mailto:jcox@dekalbcountyga.gov">jcox@dekalbcountyga.gov</a>	38
8	Lucy Herring	Georgia Emergency Management Agency (GEMA)	Hazard Mitigation Planning Specialist	<a href="mailto:lucy.herring@gema.ga.gov">lucy.herring@gema.ga.gov</a>	42



### SIGN IN SHEET

9	Akin Akinsola	DeKalb Roads and Drainage	Floodplain Management Supervisor	aaakinsola@dekalbcountyga.gov	41
10	Alesia Guest	DeKalb County E-911 Communication Center	E-911 Deputy Director	ahguest@dekalbcountyga.gov	44
11	Robin Pits	Member of the Public	Concerned Citizen	ypavo@dekalbcountyga.gov	43
12	Kristopher Mattson	Children's Healthcare of Atlanta	Emergency Manager	kristopher.mattson@choa.org	44
13	Jim Popovitch	Member of the Public	Concerned Citizen	jim@k4vgc.com	43
14	ChaQuias Miller-Thornton	City of Stone Mountain	City Manager	cthorton@stonemountaincity.org	42
15	Matthew Murray	Brookhaven Police Department	EMA Team Lead	matthew.murray@brookhavenga.gov	85
16	Gerald Selby	Member of the Public	Concerned Citizen	g_selby@bellsouth.net	42
17	Courtney Frisch	City of Chamblee	Assistant Director of Public Works	ttaylor@chikamingtownship.org	40
18	Philemon Harrington	DeKalb County Police Department	Detective	pdharrington@dekalbcountyga.gov	39
19	Toni Washington	City of Decatur	Fire Chief/Emergency Manager	toni.washington@decaturga.com	38
20	William Voorhies	DeKalb County Fire Rescue	Deputy Chief of Planning and Risk Reduction	wlvoorhies@dekalbcountyga.gov	38
21	Paul Hanebuth	City of Avondale Estates	Assistant City Manager	phanebuth@avondaleestates.org	38
22	LaThaydra Sands	City of Lithonia	City Administrator	lathaydra.sands@lithoniacity.org	38
23	J Walker	DeKalb County Police Department	Sergeant	jkwalker@dekalbcountyga.gov	38
24	Carl Thomas	City of Dunwoody	Stormwater Utility Manager	carl.thomas@dunwoodyga.gov	38
25	Joseph Wheelchel	DeKalb Police	Police Department	jwheelchel@dekalbcountyga.gov	34
26	Patrick Bailey	DeKalb County Medical Examiner	Director-Medical Examiner	plbailey@dekalbcountyga.gov	26



### SIGN IN SHEET

27	Adam Wade	DeKalb County Police Department	Detective	cawade@dekalbcountyga.gov	26
28	Jim Tavenner	City of Stone Mountain Public Works Department	Director	publicworks@stonemountaincity.org	22
29	Donovan Cushnie	DeKalb County Government, Department of Planning and Sustainability	Floodplain Coordinator	dcushnie@dekalbcountyga.gov	18

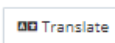

DeKalb County, GA HMP Kickoff Meeting by Participants by Phone

Number	Phone Number	Total Duration on Kickoff Call (Minutes)
1	1-770-498-8984	42

**Hazard Mitigation Plan Update, Public Review Period, TBD** – Prior to the Public Review Period, a public announcement ran for **x weeks in XXX** and for x weeks in the **XXX**. DeKalb County also utilized social media by posting the public announcement on the county's Facebook page for **x** days. Additionally, DEMA publicized the Public Review Period on their website for the duration of the period (14 days). Due to the COVID-19 pandemic and DeKalb County government reopening with operations modified for COVID-19 Safe Practices, MPC members and the public were asked to review a draft copy of the updated plan online (available on DEMA's website) before asking questions or expressing concerns. The MPC, plan stakeholders, and the public provided feedback for the plan draft using an online survey tool, i.e., Public Input.



(insert notice when available)



## DeKalb County - HMP Sandbox Survey

**Overview:** This survey is to give stakeholders the ability to give input to the hazard mitigation project that is going on for DeKalb County, Georgia. The jurisdictions include DeKalb County, Georgia, and the Cities of Avondale Estates, Georgia, Brookhaven, Georgia, Chamblee, Georgia, Clarkston, Georgia, Decatur, Georgia, Doraville, Georgia, Dunwoody, Georgia, Lithonia, Georgia, Pine Lake, Georgia, and Stone Mountain, Georgia.

**Instructions:** To complete the survey below, input your answers to each question and click the "Submit Your HMP Survey Now" button at the end to submit your answers. Please complete this survey by November 18, 2021.

If you have any questions about the survey or issues using the survey, please contact Kiana Freeman at (720) 490-4582 or email [HELP@boldplanning.com](mailto:HELP@boldplanning.com).

Thank you so much for your participation; BOLDplanning and DeKalbCounty, Georgia Emergency Management Agency greatly appreciate it!

What is your occupation?

Closed to responses

What is your city of residence?

Example: Decatur, GA

Closed to responses

Where do you live?

Drag the circle to roughly the area where you live. You can also search for your address in the box above. This helps us understand where specific hazards have the most concern.

This question is closed to responses.



\* Which Hazards is your area MOST at risk for?

Mark all that apply.

Dam Failure	Drought
Earthquake	Extreme Heat
Flood	Hurricane
Severe Storms (including Lightning, Thunderstorms, Hail, and Wind)	Severe Winter Storms
Tornadoes	Wildfire

Closed to responses

\* Which Hazards is your area Least at risk for?

Mark all that apply.

Dam Failure	Drought
Earthquake	Extreme Heat
Flood	Hurricane
Severe Storms (including Lightning, Thunderstorms, Hail, and Wind)	Severe Winter Storms
Tornadoes	Wildfire

Closed to responses

Tell us about your concerns about the following hazards:

	No Concern	Some Concern	Moderate Concern	Significant Concern
Dam Failure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Droughts	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Earthquakes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extreme Heat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hurricane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe Storm (including Lightning, Thunderstorms, Hails, and Wind)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe Winter Storms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tornadoes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wildfires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



\* List historical instances when a weather event caused a disruption to your area.

List Date, event, and short description.

Closed for Comments

\* List areas in your community you are aware of that constantly face issues with bad weather. (Example: flooding, power outages, closed roads, etc).

Closed for Comments

Do you have suggestions for projects that can be done in your area so that weather-related disruptions do not happen? (Example: culverts or safe rooms)

Closed for Comments

Are there any hazards that were not listed, that you think should be included in the plan?

Closed to responses

For updates on specific concerns in your area, and the opportunity to continue assisting with the planning process, please enter your email below. We will not share this information, but it will ensure that the County can contact you.

Name

kiana.freeman@agilityrecovery.com

Email

Email Address

**Hazard Mitigation Plan Update, Final Review Meeting, Date TBD** – The updated DeKalb County mitigation plan was reviewed by the MPC and other stakeholders, as requested, prior to its submission to the Georgia Emergency Management Agency (GEMA). However, due to the ongoing COVID-19 pandemic, the Final Review Meeting was not conducted in person. Rather, DEMA emailed the MPC and plan stakeholders, requesting final plan review and final comments via email reply.

**Hazard Mitigation Plan Update, Plan Adoption Signing, Date TBD** – Upon plan approval, adoption letters pertaining to the 2022 Countywide Hazard Mitigation Update were disseminated and signed by the 13 plan participants: Unincorporated DeKalb County, Georgia, and the municipalities of Avondale Estates (City), Brookhaven (City), Chamblee (City), Clarkston (City), Decatur (City), Doraville (City), Dunwoody (City), Lithonia (City), Pine Lake (City), Stonecrest (City), Stone Mountain (City), and Tucker (City). The signing of these resolution letters codifies the plan update's adoption.

Additional planning efforts included meetings with representation from other jurisdictions and the public at large. Planning events also included conference calls





## APPENDIX C: CRITICAL FACILITIES – DEKALB COUNTY

Name	Address	Type
Police Headquarters HQ/North/Central/911/EOC	<u>1960 West Exchange Place, Tucker, Georgia 30084</u>	Police
Police Tucker Precinct	<u>4451 Lawrenceville Highway, Tucker, Georgia 30084</u>	Police
Police East Precinct	<u>2484 Bruce Street, Lithonia, Georgia 30058</u>	Police
Police South Precinct	<u>2842 H.F. Shepherd Drive, Decatur, Georgia 30034</u>	Police
Police Special Operations	<u>3630 Camp Circle, Decatur, Georgia 30032</u>	Police
Police Outdoor Range	<u>3905 N Goddard Rd, Lithonia, Georgia 30038</u>	Police
South DeKalb Police Precinct Candler Road	1816 Candler Road, Decatur, GA 30032	Police
North DeKalb Police Precinct	1358 Dresden Drive, Atlanta, GA 30319	Police
East DeKalb Police Precinct	2484 Bruce Street, Lithonia, Georgia 30058	Police
Bruce Street Gym	2484 Bruce Street, Lithonia, Georgia 30058	Police
Bruce Street Library	2484 Bruce Street, Lithonia, Georgia 30058	Police
Bruce Street Police Academy	2484 Bruce Street, Lithonia, Georgia 30058	Police Training Facility
Bruce Street Community Center	2484 Bruce Street, Lithonia, Georgia 30058	Police
Sheriff's Office/ Jail	<u>4415 Memorial Drive, Decatur, Georgia 30032</u>	Police/Sheriff/Jail
Fire Station 1	<u>1670 Clifton Road, Decatur, Georgia 30030</u>	Fire Rescue
Fire Station 2	<u>1316 Dresden Drive, Atlanta, Georgia 30319</u>	Fire Rescue
Fire Station 3	<u>24 North Claredon Avenue, Avondale Estates, Georgia 30002</u>	Fire Rescue
Fire Station 4	<u>4540 Flakes Mill Road, Ellenwood, Georgia 30294</u>	Fire Rescue
Fire Station 5	<u>4013 Lawrenceville Highway, Tucker, Georgia 30084</u>	Fire Rescue
Fire Station 6	<u>2342 Flat Shoals Road, Atlanta, Georgia 30349</u>	Fire Rescue
Fire Station 7	<u>1776 Derrill Crive, Decatur, Georgia 30032</u>	Fire Rescue
Fire Station 8	<u>2711 Clarimont Road, Atlanta, Georgia 30329</u>	Fire Rescue
Fire Station 9	<u>3858 North Druid Hills Road, Decatur, Georgia 30033</u>	Fire Rescue
Fire Station 10	<u>1686 Constitution Road, Atlanta, Georgia 30316</u>	Fire Rescue
Fire Station 11	<u>6715 Memorial Drive, Stone Mountain, Georgia 30083</u>	Fire Rescue
Fire Station 12	<u>5323 Roberts Drive, Dunwoody, Georgia 30338</u>	Fire Rescue



## APPENDIX

Name	Address	Type
Fire Station 13	<u>5619 Redan Road, Stone Mountain, Georgia 30088</u>	Fire Rescue
Fire Station 14	<u>7207 Covington Highway, Lithonia, Georgia 30058</u>	Fire Rescue
Fire Station 15	<u>2017 Flightway Drive, Chamblee, Georgia 30341</u>	Fire Rescue
Fire Station 16	<u>2770 Pleasantwood Drive, Decatur, Georgia 30034</u>	Fire Rescue
Fire Station 17	<u>3900 Evans Mill Road, Lithonia, Georgia 30038</u>	Fire Rescue
Fire Station 18	<u>4588 Barclay Drive, Chamblee, Georgia 30338</u>	Fire Rescue
Fire Station 19	<u>3253 Mercer University Drive, Chamblee, Georgia 30341</u>	Fire Rescue
Fire Station 20	<u>2919 Warren Road, Decatur, Georgia 30034</u>	Fire Rescue
Fire Station 21	<u>1020 Crown Point Parkway, Atlanta, Georgia</u>	Fire Rescue
Fire Station 22	<u>1859 Montreal Road, Tucker, Georgia 30084</u>	Fire Rescue
Fire Station 23	<u>1265 Brockett Road, Clarkston, Georgia 30021</u>	Fire Rescue
Fire Station 24	<u>4154 Redan Road, Stone Mountain, Georgia 30083</u>	Fire Rescue
Fire Station 25	<u>7136 Rockbridge Road, Stone Mountain, Georgia 30087</u>	Fire Rescue
Fire Station 26	<u>2522 McAfee Road, Decatur, Georgia 30032</u>	Fire Rescue
Fire Rescue Headquarters	<u>1950 West Excnage Place, Tucker, Georgia 30084</u>	Fire Rescue
John A. Walker Raw Water Pump Station	<u>4350 Holcomb Bridge Rd, Norcross, Georgia 30071</u>	Water Supply/Treatment Facility
Scott Candler Water Treatment Plant	<u>4830 Winters Chapel Rd, Doraville, Georgia 30360</u>	Water Supply/Treatment Facility
Snapfinger Creek Advanced Wastewater Treatment Plant	<u>4124 Flakes Mill Rd, Decatur, Georgia 30034</u>	Water Supply/Treatment Facility
Pole Bridge Advanced Wastewater Treatment Plant	<u>4664 Flat Bridge Rd, Lithonia, Georgia 30038</u>	Water Supply/Treatment Facility
Columbia GST/RPS	<u>1742 Columbia Dr, Decatur, Georgia 30032</u>	Water Supply/Treatment Facility
Dunwoody GST/RPS	<u>5363 Roberts Rd, Dunwoody, Georgia 30032</u>	Water Supply/Treatment Facility
Lithonia GST/RPS	<u>6670 Parkway Dr, Lithonia, Georgia 30058</u>	Water Supply/Treatment Facility
Redan-Panola GST/RPS	<u>5621 Panola Rd, Stone Mountain, Georgia 30088</u>	Water Supply/Treatment Facility
Tucker GST/RPS	<u>4226 Lawrenceville Hwy, Tucker, Georgia 30084</u>	Water Supply/Treatment Facility
Wesley Chapel GST/RPS	<u>3537 Wesley Chapel Rd, Decatur, Georgia 30032</u>	Water Supply/Treatment Facility
Whites Mill GST/RPS	<u>2463 Jenay Ct, Decatur, Georgia 30032</u>	Water Supply/Treatment Facility
Avondale ET	<u>3250 Covington Hwy, Decatur, Georgia 30032</u>	Water Supply/Treatment Facility
Clairmont ET	<u>1901 Mason Mill Rd, Decatur, Georgia 30329</u>	Water Supply/Treatment Facility



## APPENDIX

Name	Address	Type
Decatur ET	<u>1127 West Howard Ave, Decatur GA 30030</u>	Water Supply/Treatment Facility
Dunwoody ET	<u>4339 Ashford-Dunwoody Rd, Dunwoody, Georgia 30338</u>	Water Supply/Treatment Facility
McAfee ET	<u>2532 McAfee Rd, Decatur, Georgia 30032</u>	Water Supply/Treatment Facility
Tucker ET	<u>1750 Stone Ridge Dr, Stone Mountain, Georgia 30083</u>	Water Supply/Treatment Facility
Honey creek Water & Sewer	7501 Rockland Rd. Lithonia, GA 30058	Water Supply/Treatment Facility
State/ Superior Court House (Decatur)	<u>556 North McDonough Street, Decatur, Georgia 30030</u>	Court house
Recorders Court	<u>3630 Camp Circle, Decatur, Georgia 30032</u>	Court house
Juvenile Court	<u>4309 Memorial Drive, Decatur, Georgia 30032</u>	Court house
Jail Annex	3631 Camp Circle, Decatur, GA 30032	Court house
Juvenile Court	3631 Camp Circle, Decatur, GA 30032	Court house
Clark Harrison Building (Decatur)	<u>330 West Park Place, Decatur, Georgia 30030</u>	Government
Callaway Building (Decatur) (Scheduled to close)	<u>120 West Trinity Place, Decatur, Georgia 30030</u>	Government
Mexico Consulate Atlanta	<u>1700 Chantilly Drive Northeast, Atlanta, Georgia 30324</u>	Government
Guatemala Consulate Atlanta	<u>2750 Buford Highway Northeast, Atlanta, Georgia 30324</u>	Government
Peru Consulate Atlanta	<u>4360 Chamblee Dunwoody Road, Atlanta, Georgia 30341</u>	Government/Military
US Navy Recruiting Station	<u>9316 Lawrenceville HWY, Ste 120, Tucker Georgia 30084</u>	Government/Military
US Army Recruiting Station	<u>3983 LaVista Rd, Ste 180-A, B, &amp; C, Tucker Georgia 30084</u>	Government/Military
US Air Force Recruiting Station	<u>3983 LaVista Rd, Ste 180-A, B, &amp; C, Tucker Georgia 30084</u>	Government/Military
US Marine Corps Recruiting Station	<u>3983 LaVista Rd, Ste 180-A, B, &amp; C, Tucker Georgia 30084</u>	Government/Military
GA Army National Guard 170th Military Police BN	<u>3736 Durham Park Rd, Decatur Georgia 30032</u>	Government/Military
US Army Reserve Center	<u>1650 Corey BLVD, Decatur Georgia 30032</u>	Government/Military
US Navy Recruiting Station	<u>2801 Candler Rd, Ste 92, Decatur Georgia 30034</u>	Government/Military
GA Army National Guard Recruiting Station	<u>2389 Wesley Chapel Rd, Decatur Georgia 30035</u>	Government/Military
US Army Recruiting Station	<u>6746 Covington HWY, Ste 105, Lithonia Georgia 30058</u>	Government/Military
Manuel J. Maloof Center (Dec.)/BOC/Legal/HR/Econ/Dev/Finance/CEO	<u>1300 Commerce Drive, Decatur, Georgia 30030</u>	Government
Communication Tower 1/Repeater Tower	<u>Three Ravinia Drive, Ravinia Dr NE, Dunwoody, Georgia 30346</u>	Communication
Communication Tower 2/Repeater Tower	<u>3253 Mercer University Drive, Chamblee, Georgia 30341</u>	Communication



## APPENDIX

Name	Address	Type
Communication Tower 3/Repeater Tower	<u>1800 Briarcliff Rd NE, Atlanta, GA 30329</u>	Communication
Communication Tower 4/Repeater Tower	<u>2055 Robert E Lee Blvd, Stone Mountain, Georgia 30083</u>	Communication
Communication Tower 5/Repeater Tower	<u>701 Camp Rd, Decatur, Georgia 30032</u>	Communication
Communication Tower 6/Repeater Tower	<u>2484 Bruce Street, Lithonia, Georgia 30058</u>	Communication
Communication Tower 7/Repeater Tower	<u>3905 N Goddard Rd, Lithonia, Georgia 30038</u>	Communication
Communication Tower 8/Repeater Tower	<u>1678 Fairlake Dr, Decatur, Georgia 30034</u>	Communication
Communication Tower 9/Repeater Tower	<u>1686 Constitution Road, Atlanta, Georgia 30316</u>	Communication
Communication Tower 10/Microwave	<u>556 North McDonough Street, Decatur, Georgia 30030</u>	Communication
Communication Tower 11/Microwave	<u>6094 Shadow Rock Dr, Lithonia, Georgia 30058</u>	Communication
Communication Tower 12/Dispatch	<u>1960 West Exchange Place, Tucker, Georgia 30084</u>	Communication
Communication Tower 13/Dispatch	<u>3630 Camp Circle, Decatur, Georgia 30032</u>	Communication
Oglethorpe Power Corporation	<u>2100 East Exchange Place, Tucker, Georgia 30084</u>	Power/Energy
Snapping Shoals EMC	<u>190 Fairview Road, Ellenwood, Georgia 30294</u>	Power/Energy
CDC Main	<u>1600 Clifton Road N.E., Atlanta, Georgia 30333</u>	Lab
CDC Corporate Boulevard	<u>8 Corporate Boulevard, Atlanta, Georgia 30329</u>	Admin/Mail
CDC PDK	<u>4770 Buford Highway N.E., Atlanta, Georgia, 30341</u>	Admin
Georgia Public Health Laboratory	<u>1749 Clairmont Road, Decatur, Georgia 30033</u>	Health/Lab
Yerkes National Primate Research Center (YNPRC)	<u>954 Gatewood Road N.E., Atlanta, Georgia 30329</u>	Health/Lab
Stone Mountain Park	<u>1000 Robert E. Lee Boulevard, Stone Mountain, Georgia 30083</u>	Park
Fernbank Museum of Natural History	<u>767 Clifton Road N.E., Atlanta, Georgia 30307</u>	Other/Museum
Perimeter Mall	<u>4400 Ashford Dunwoody Road, Atlanta, Georgia 30346</u>	Other/Shopping
North DeKalb Mall	<u>2050 Lawrenceville Highway, Decatur, Georgia 30033</u>	Other/Shopping
Gallery at South DeKalb (South DeKalb Mall)	<u>2801 Candler Road, Decatur, Georgia 30034</u>	Other/Shopping
Stonecrest Mall	<u>2929 Turner Hill Road, Lithonia, Georgia 30038</u>	Other/Shopping
Northlake Mall	<u>4800 Briarcliff Road Northeast, Atlanta, Georgia 30345</u>	Other/Shopping
Atlanta Veterans Medical Center	<u>1670 Clairmont Road, Decatur, Georgia 30033</u>	Hospital
DeKalb Medical Center	<u>2701 North Decatur Road, Decatur, Georgia 30033</u>	Hospital
DeKalb Medical Center Hillandale	<u>2801 DeKalb Medical Parkway, Lithonia, Georgia 30058</u>	Hospital



## APPENDIX

Name	Address	Type
Children's Healthcare of Atlanta at Egleston	<u>1405 Clifton Road N.E., Atlanta, Georgia 30322</u>	Children's Hospital
Emory University Hospital	<u>1405 Clifton Road N.E., Atlanta, Georgia 30322</u>	Hospital
Sanitation South Lot, Exchange Park	1755 Fairlake Drive, Decatur, GA 30034	County Government Facility
Sanitation East Lot	1750 Rogers Lake Road, Lithonia, GA 30058	County Government Facility
Sanitation Headquarters	3643 Camp Drive, Decatur, GA 30032	County Government Facility
Traffic Engineering Sign Shop	Camp Way, Decatur, GA 30032	County Government Facility
Sanitation North Lot, Carrol Avenue	2315 Chamblee-Tucker Road, Doraville, GA 30341	County Government Facility
Snapfinger Main Shop W&S	4124 Flakes Mill Road, Decatur, GA 30034	County Government Facility
Snapfinger Plant, Water & Sewer	4124 Flakes Mill Road, Decatur, GA 30034	County Government Facility
Sanitation Welding Shop	Rear of 3700 Camp Circle, Decatur, GA 30032	County Government Facility
RPCA Southern Service Center	1749 Flakes Mill Drive, Decatur, GA 30034	County Government Facility
Sanitation Pulverizer, Buford Highway	4600 Buford Highway, Doraville, GA 30341	County Government Facility
Sanitation Pulverizer, Exchange Park	1755 Fairlake Drive, Decatur, GA 30034	County Government Facility
Sanitation Pulverizer, Site - E	4203 Clevemont Road, Ellenwood, GA 30034	County Government Facility
Sanitation Seminole Road Landfill	4203 Clevemont Road, Ellenwood, GA 30034	County Government Facility
Sanitation Site - E, Seminole Scale House	4203 Clevemont Road, Ellenwood, GA 30034	County Government Facility
Sanitation Transfer Station, Incinerator	3700 Camp Circle, Decatur, GA 30032	County Government Facility
Sheriff's Training Trailer	800 Camp Way, Decatur, GA 30032	County Government Facility
Surplus Shed, Camp Road	Camp Road, Decatur, GA 30032	County Government Facility
Scottdale Tobie Grand	644 Parkdale Drive, Scottdale, GA 3009	County Government Facility
DeKalb County Tax Comm.	1358 Dresden Drive, Atlanta, GA 30319	County Government Facility
DeKalb Co. Tax Comm.	2389 Wesley Chapel Road Suite 101A, Decatur, GA 30035	County Government Facility
DeKalb Co. Tax Comm.	4380 Memorial Drive Suite 100, Decatur, GA 30032	County Government Facility
Porter Sanford Center for Performing Arts	3181 Rainbow Drive, Decatur, GA 30034	County Government Facility
Administration Building	1300 Commerce Dr, Decatur, GA 30030	County Government Facility
Administration Building Annex	1300 Commerce Dr, Decatur, GA 30030	County Government Facility
Animal Control Center	845 Camp Road, Decatur, GA 30030	County Government Facility
Medical Examiner's Forensic Science Center	3550 Kensington Road, Decatur, GA 30032	County Government Facility
Roads & Drainage Field Office	729 Camp Road, Decatur, GA 30032	County Government Facility





## APPENDIX

Name	Address	Type
Emory University	201 Dowman Drive, Atlanta, Georgia 30322	Education
Mercer University	3100 Mercer University Drive, Atlanta, Georgia 30341	Education
Agnes Scott College	141 East College Avenue, Decatur, Georgia 30030	Education
Oglethorpe University	4484 Peachtree Road, Atlanta, Georgia 30319	Education
Cox Communications	<u>1400 Lake Hearn Drive Northeast, Atlanta, Georgia 30319</u>	Other
WAGA (Fox 5)	<u>1551 Briarcliff Road N.E., Atlanta, Georgia 30306</u>	Other
Doraville Fuel Terminal (Fuel Farm)	<u>6293 New Peachtree Road, Doraville, Georgia 30340</u>	Other
Decatur Library	215 Sycamore Street, Decatur, GA	Library
Briarcliff Library	2775 Briarcliff Road, Atlanta, GA	Library
BrookHaven	1242 N. Druid Hills Road, Atlanta, GA	Library
CHAMBLEE Library	4115 Clairmont Road, Chamblee, GA	Library
Clarkston Library	951 N. Indian Creek, Clarkston, GA	Library
Covington Library	3500 Covington Hwy, Decatur, Ga	Library
Doraville Library	3748 Central Ave. Doraville, GA	Library
Dunwoody Library	5339 Chamblee-Dunwoody Rd, Dunwoody, GA	Library
Embry Hills Library	3733 Chamblee-Tucker Rd, Chamblee, GA	Library
Flat Shoals Library	4022 Flat Shoals Parkway, Decatur, GA	Library
Gresham Library	2418 Gresham Road, Atlanta, GA	Library
Hairston Crossing Library	4911 Redan Road, Stone Mountain, GA	Library
Lithonia-Davidson Library	6821 Church Street, Lithonia, GA	Library
Northlake-Barbara Loar Library	3772 LaVista Road, Tucker, GA	Library
Redan Trotti Library	1569 Wellborn Road, Lithonia, GA	Library
Salem-Panola Library	5137 Salem Road, Lithonia, GA	Library
Scott Chandler Library	2544 McAfee Road, Decatur, GA	Library
Toco Hill-Avis G. Williams Library	1282 McConnel Drive	Library
DeKalb County Tax Comm.	1358 Dresden Drive	Government
DeKalb Co. Tax Comm.	2389 Wesley Chapel Road Suite 101A	Government
DeKalb Co. Tax Comm.	4380 Memorial Drive Suite 100	Government
Porter Sanford Center for Performing Arts	3181 Rainbow Drive	Government



## APPENDIX

Name	Address	Type
PeachTree DeKalb Airport		
Post Office	4700 Longmire Ext, Atlanta, GA 30340	Government
Post Office	520 W Ponce de leon Ave Decatur GA 30030	Government
Post Office	1920 Dresden Dr NE, Brookhaven, GA 30319	Government
Post Office	3212 Northlake Pkwy NE, Atlanta, GA 30345	Government
Post Office	3104 Briarcliff Rd NE, Atlanta, GA 30345	Government
Post Office	1785 E Park Pl Blvd Ste 201, Stone Mountain, GA 30087	Government
Post Office	977 Montreal Rd, Clarkston, GA 30021	Government
Post Office	3328 E Ponce de Leon Ave, Scottdale, GA 30079	Government
Post Office	2853 Candler Rd Side, Decatur, GA 30034	Government
Post Office	3035 Stone Mountain St, Lithonia, GA 30058	Government
Post Office	1333 Cedar Grove Rd, Conley, GA 30288	Government
Post Office	3545 Broad St Atlanta, GA 30341 - 2259	Government
Post Office	1799 Briarcliff Rd NE FRNT Atlanta, GA 30333	Government
Post Office	1551 Dunwoody Village Pkwy Atlanta, GA 30338	Government
Post Office	1926 Hosea L Williams Dr. NE Atlanta, GA 30317	Government
Post Office	3631 Chamblee Tucker Rd STE C Atlanta, GA 30341	Government
Post Office	4707 Ashford Dunwoody Rd Atlanta, GA 30338	Government
Post Office	15 Franklin St Avondale Estates, GA 30002	Government
Post Office	2724 Wesley Chapel Rd Decatur, GA 30034	Government
Post Office	5465 Highway 42 Ellenwood, GA 30294	Government
Post Office	1544 Wellborn Rd STE 4 Lithonia, GA 30058	Government
Post Office	4567 Rockbridge Rd Pine Lake, GA 30072	Government
Post Office	5152 Memorial Dr. STE 101 Stone Mountain, GA 30083	Government
Post Office	5181 W Mountain St Stone Mountain, GA 30083	Government
Post Office	4325 1st Ave., Tucker, GA 30084	Government
Clairemont Elementary	155 Erie Ave, Decatur, GA 30030	Elementary
College Heights Early Childhood Learning	917 S. McDonough St. Decatur, GA 30030	Elementary
Fifth Ave Upper Elementary	101 5th Ave, Decatur, GA 30030	Elementary



## APPENDIX

Name	Address	Type
Glenwood Elementary	440 E. Ponce de Leon Ave, Decatur, GA 30030	Elementary
Oakhurst Elementary	175 Mead Road, Decatur, GA 30030	Elementary
Talley Street Upper Elementary School	2617 Talley Street, Decatur, GA 30030	Elementary
Westchester Elementary	758 Scott Blvd, Decatur, GA 30030	Elementary
Winnona Park Elementary	510 Avery Street, Decatur, GA 30030	Elementary
Decatur High School	310 N. McDonough Street, Decatur, GA 30030	Elementary
Barack H. Obama Elementary Magnet School	3132 Clifton Church Road, SE ATL, GA 30316	Elementary
John Robert Lewis Elementary School	2630 Skyland Drive, NE Atlanta, GA 30319	Elementary
Peachcrest Elementary School	1530 Joy Lane, Decatur, GA 30032	Elementary
Renfroe Middle School	220 W. College Ave, Decatur, GA 30030	Elementary
Allgood (PK-5)	<u>659 Allgood Road, Stone Mountain, GA 30083</u>	School
Arabia Mountain High (9-12)	<u>6610 Browns Mill Road, Lithonia, GA 30058</u>	School
Ashford Park (PK-6)	<u>2968 Cravenridge Drive, NE, Atlanta, GA 30319</u>	School
Austin (PK-3)	<u>5435 Roberts Drive, Dunwoody, GA 30038</u>	School
Avondale (PK-5)	<u>10 Lakeshore Drive, Avondale Estates, GA 30002</u>	School
Bethune Middle (584) (6-8)	<u>5200 Convington Highway, Decatur, GA 30035</u>	School
Bob Mathis(PK-5)	<u>3505 Boring Road, Decatur, GA 30034</u>	School
Briar Vista (PK-5)	<u>1131 Briar Vista Terrace, Atlanta, GA 30324</u>	School
Briarlake (PK-5)	<u>3590 LaVista Road, Decatur, GA 30033</u>	School
Brockett (PK-5)	<u>1855 Brockett Road, Tucker, GA 30084</u>	School
Browns Mill (PK-5)	<u>4863 Browns Mill Road, Lithonia, GA 30058</u>	School
Canby Lane (PK-5)	<u>4150 Green Hawk Trail, Decatur, GA 30035</u>	School
Cary Reynolds (PK-5)	<u>3498 Pine Street, Doraville, GA 30340</u>	School
Cedar Grove (PK-5)	<u>2330 River Road, Ellenwood, GA 30049</u>	School
Cedar Grove High (9-12)	<u>2360 River Road, Ellenwood, GA 30049</u>	School
Cedar Grove Middle (6-8)	<u>2300 Wildcat Road, Decatur, GA 30034</u>	School
Chamblee High (9-12)	<u>3688 Chamblee Dunwoody Road, Atlanta, GA 30341</u>	School
Chamblee Middle (6-8)	<u>3601 Sexton Woods Drive, Chamblee, GA 30341</u>	School
Champion Theme Middle (6-8)	<u>5265 Mimosa Drive, Stone Mountain, GA 30083</u>	School



## APPENDIX

Name	Address	Type
Chapel Hill (PK-5)	<u>3536 Radcliffe Boulevard, Decatur, GA 30034</u>	School
Chapel Hill Middle (6-8)	<u>3535 Dogwood Farm Road, Decatur, GA 30034</u>	School
Chesnut (PK-5)	<u>4576 North Peachtree Road, Dunwoody, GA 30338</u>	School
Clarkston High (9-12)	<u>618 N. Indian Creek Road, Clarkston, GA 30021</u>	School
Clifton Elementary Computer Magnet (PK-5)	<u>3132 Clifton Church Road, Atlanta, GA 30316</u>	School
Columbia (PK-5)	<u>3230 Columbia Woods Drive, Decatur, GA 30032</u>	School
Columbia High (9-12)	<u>2106 Columbia Drive, Decatur, GA 30032</u>	School
Columbia Middle (6-8)	<u>3001 Columbia Drive, Decatur, GA 30035</u>	School
Coralwood Center (3yrs/PK/K)	<u>2477 Coralwood Drive, Decatur, GA 30033</u>	School
Cross Keys High (9-12)	<u>1626 North Druid Hills Road, NE, Atlanta, GA 30319</u>	School
DeKalb Academy of Technology and The Environment (D.A.T.E.) (K-8)	<u>1492 Kelton Drive, Stone Mountain, GA 30083</u>	School
DeKalb Alternative	<u>5855 Memorial Drive, Stone Mountain, GA 30083</u>	School
DeKalb Early College Academy (9-12)	<u>1701 Mountain Industrial Blvd, Stone Mountain, GA 30083</u>	School
DeKalb Elementary School of the Arts (PK-7)	<u>797 Fayetteville Road, Atlanta, GA 30316</u>	School
DeKalb High School Tech South	<u>3303 Panthersville Road, Decatur, GA 30030</u>	School
DeKalb Online Academy (DOLA) (9-12)	<u>1804 Bouldercrest Road, SE, Atlanta, GA 30316</u>	School
DeKalb PATH Academy (5-8)	<u>3007 Hermance Drive, Atlanta, GA 30319</u>	School
DeKalb Preparatory Academy (K-4)	<u>1402 Austin Drive, Decatur, GA 30032</u>	School
DeKalb School of the Arts	<u>1192 Clarendon Road, Avondale Estates, GA 30002</u>	School
DeKalb School Public Safety	<u>5857 Memorial Drive, Stone Mountain, GA 30083</u>	School
Destiny Achievers Academy of Excellence Charter School (9-12)	<u>3595 Linecrest Road, Ellenwood, GA 30294</u>	School
Dresden (PK-5)	<u>2449 Dresden Drive, Chamblee, GA 30341</u>	School
Druid Hills High (9-12)	<u>1798 Haygood Drive, NE, Atlanta, GA 30307</u>	School
Druid Hills Middle (6-8)	<u>3100 Mt. Olive Drive, Decatur, GA 30033</u>	School
Dunaire (PK-5)	<u>651 S. Indian Creek Drive, Stone Mountain, GA 30383</u>	School
Dunwoody (4-5)	<u>1923 Womack Road, Dunwoody, GA 30338</u>	School
Dunwoody High (9-12)	<u>5035 Vermack Road, Dunwoody, GA 30338</u>	School
E. L. Miller (PK-5)	<u>919 Martin Road, Stone Mountain, GA 30088</u>	School



## APPENDIX

Name	Address	Type
Eagle Woods Academy	<u>5931 Shadow Rock Drive, Lithonia, GA 30058</u>	School
Edward L. Bouie (PK-5)	<u>5100 Rock Springs Road, Lithonia, GA 30038</u>	School
Elizabeth Andrews High	<u>1701 Mountain Industrial Blvd, Stone Mountain, GA 30083</u>	School
Evansdale(PK-5)	<u>2914 Evans Woods Drive, Doraville, GA 30340</u>	School
Fairington (PK-5)	<u>5505 Philip Bradley Drive, Lithonia, GA 30038</u>	School
Fernbank (PK-5)	<u>157 Heaton Park Drive, NE, Atlanta, GA 30307</u>	School
Fernbank Science Center	<u>156 Heaton Park Drive, NE, Atlanta, GA 30307</u>	School
Flat Rock (PK-5)	<u>4603 Evans Mill Road, Lithonia, GA 30038</u>	School
Flat Shoals (PK-5)	<u>3226 Flat Shoals Road, Decatur, GA 30034</u>	School
Freedom Middle (6-8)	<u>505 S. Hairston Road, Stone Mountain, GA 30088</u>	School
Gateway to College Academy (10-12)	<u>555 N. Indian Creek Drive, Clarkston, GA 30021</u>	School
Globe Academy (K-3)	<u>2225 Heritage Drive, Atlanta, GA 30345</u>	School
Hambrick (PK-5)	<u>1101 Hambrick Road, Stone Mountain, GA 30083</u>	School
Hawthorne (PK-5)	<u>2535 Caladium Drive, NE, Atlanta, GA 30345</u>	School
Henderson Middle (6-8)	<u>2830 Henderson Mill Road, Chamblee, GA 30341</u>	School
Henderson Mill (PK-5)	<u>2408 Henderson Mill Road, NE, Atlanta, GA 30345</u>	School
Hightower (PK-5)	<u>4236 Tilly Mill Road, Doraville, GA 30360</u>	School
Huntley Hills (PK-5)	<u>2112 Seaman Circle, Chamblee, GA 30341</u>	School
	<u>1484 Idlewood Road, Tucker, GA 30084</u>	School
Idlewood (PK-5)	<u>724 N. Indian Creek Drive, Clarkston, GA 30021</u>	School
Indian Creek (PK-5)	<u>2418 Wood Trail Lane, Decatur, GA 30033</u>	School
International Student Center	<u>2383 North Druid Hills Road, NE, Atlanta, GA 30329</u>	School
Jolly (PK-5)	<u>1070 Otello Avenue, Clarkston, GA 30021</u>	School
Kelley Lake (PK-5)	<u>2590 Kelly Lake Road, Decatur, GA 30032</u>	School
Kingsley (PK-5)	<u>2051 Brendon Drive, Dunwoody, GA 30338</u>	School
Kittredge (PK-6)	<u>1663 E. Nancy Creek Drive, NE, Atlanta, GA 30319</u>	School
Knollwood (PK-5)	<u>3039 Santa Monica Drive, Decatur, GA 30032</u>	School
Lakeside High (9-12)	<u>3801 Briarcliff Road, NE, Atlanta, GA 30345</u>	School
Laurel Ridge (PK-5)	<u>1215 Balsam Drive, Decatur, GA 30033</u>	School





## APPENDIX

Name	Address	Type
Leadership Preparatory Academy (K-5)	<u>6400 Woodrow Road, Lithonia, GA 30038</u>	School
Lithonia High (9-12)	<u>2440 Phillips Road, Lithonia, GA 30058</u>	School
Lithonia Middle (6-8)	<u>2451 Randall Avenue, Lithonia, GA 30058</u>	School
Livsey (PK-5)	<u>4137 Livsey Road, Tucker, GA 30084</u>	School
Marbut (PK-5)	<u>5776 Marbut Road, Lithonia, GA 30058</u>	School
Margaret Harris	<u>1634 Knob Hill Drive, NE, Atlanta, GA 30329</u>	School
McLendon (PK-5)	<u>3169 Hollywood Drive, Decatur, GA 30033</u>	School
McNair Elementary Discovery Learning Academy (PK-5)	<u>2162 Second Avenue, Decatur, GA 30032</u>	School
McNair High (9-12)	<u>1804 Bouldercrest Road, SE, Atlanta, GA 30316</u>	School
McNair Middle (6-8)	<u>2190 Wallingford Drive, Decatur, GA 30032</u>	School
Meadowview (PK-5)	<u>1879 Wee Kirk Road, Atlanta, GA 30316</u>	School
Midvale (PK-5)	<u>3836 Midvale Road, Tucker, GA 30084</u>	School
Midway (PK-3)	<u>3318 Midway Road, Decatur, GA 30032</u>	School
Miller Grove High (9-12)	<u>2645 DeKalb Medical Parkway, Lithonia, GA 30058</u>	School
Miller Grove Middle (6-8)	<u>2215 Miller Road, Decatur, GA 30035</u>	School
MLK, Jr. High (9-12)	<u>3991 Snapfinger Road, Lithonia, GA 30038</u>	School
Montclair (PK-5)	<u>1680 Clairmont Place NE, Atlanta, GA 30329</u>	School
Montgomery (PK-6)	<u>3995 Ashford-Dunwoody Road, Atlanta, GA 30319</u>	School
Murphey Candler (PK-5)	<u>6775 South Goddard Road, Lithonia, GA 30038</u>	School
Narvie J. Harris (PK-5)	<u>3981 McGill Drive, Decatur, GA 30034</u>	School
Oak Grove (PK-5)	<u>1857 Oak Grove Road, NE, Atlanta, GA 30329</u>	School
Oak View (PK-5)	<u>3574 Oakvale Road, Decatur, GA 30034</u>	School
Oakcliff (PK-5)	<u>3150 Willow Oak Way, Doraville, GA 30340</u>	School
Panola Way (PK-5)	<u>2170 Panola Way Court, Lithonia, GA 30058</u>	School
Peachtree Middle (6-8)	<u>4664 North Peachtree Road, Atlanta, GA 30338</u>	School
Pine Ridge (PK-5)	<u>750 Pine Ridge Drive, Stone Mountain, GA 30087</u>	School
Pleasantdale (PK-5)	<u>3695 North Lake Drive, Doraville, GA 30340</u>	School
Princeton (PK-5)	<u>1321 South Deshon Road, Lithonia, GA 30058</u>	School



## APPENDIX

Name	Address	Type
Rainbow (PK-5)	<u>2801 Kelley Chapel Road, Decatur, GA 30034</u>	School
Redan (PK-5)	<u>1914 Stone Mountain-Lithonia Rd, Lithonia, GA 30058</u>	School
Redan High (9-12)	<u>5247 Redan Road, Stone Mountain, GA 30088</u>	School
Redan Middle (6-8)	<u>1775 Young Road, Lithonia, GA 30058</u>	School
Robert Shaw (PK-5)	<u>362 Glendale Road, Scottdale, GA 30341</u>	School
Rock Chapel (PK-5)	<u>1130 Rock Chapel Road, Lithonia, GA 30058</u>	School
Rockbridge (PK-6)	<u>445 Halwick Way, Stone Mountain, GA 30083</u>	School
Rowland (348) (V) (PK-5)	<u>1317 S. Indian Creek Drive, Stone Mountain, GA 30083</u>	School
Sagamore Hills (PK-5)	<u>1865 Alderbrook Road, Atlanta, GA 30345</u>	School
Salem Middle (6-8)	<u>5333 Salem Road, Lithonia, GA 30058</u>	School
Sequoyah Middle (6-8)	<u>3456 Aztec Drive, Doraville, GA 30340</u>	School
Shadow Rock (PK-5)	<u>1040 Kingway Drive, Lithonia, GA 30058</u>	School
Shadow Rock Center	<u>1040 Kingway Drive, Lithonia, GA 30058</u>	School
Smoke Rise (PK-5)	<u>1991 Silver Hill Road, Stone Mountain, GA 30087</u>	School
Snapfinger (PK-5)	<u>1365 Snapfinger Road, Decatur, GA 30032</u>	School
Southwest DeKalb High (9-12)	<u>2683 Kelley Chapel Road, Decatur, GA 30034</u>	School
Stephenson High (9-12)	<u>701 Stephenson Road, Stone Mountain, GA 30087</u>	School
Stephenson Middle (6-8)	<u>922 Stephenson Road, Stone Mountain, GA 30087</u>	School
Stone Mill (PK-5)	<u>4900 Sheila Lane, Stone Mountain, GA 30083</u>	School
Stone Mountain (PK-5)	<u>6720 James B. Rivers Drive, Stone Mountain, GA 30083</u>	School
Stone Mountain High (9-12)	<u>4555 Central Drive, Stone Mountain, GA 30083</u>	School
Stone Mountain Middle (6-8)	<u>4301 Sarr Parkway, Stone Mountain, GA 30083</u>	School
Stoneview (PK-5)	<u>2629 Huber Street, Lithonia, GA 30058</u>	School
Tapestry Public Charter School	<u>4046 Chamblree-Tucker Road, Atlanta, GA 30340</u>	School
The Museum School of Avondale Estates (K-7)	<u>923 Forrest Blvd, Decatur, GA 30030</u>	School
Toney (PK-5)	<u>2701 Oakland Terrace, Decatur, GA 30032</u>	School
Towers High (9-12)	<u>3919 Brookcrest Circle, Decatur, GA 30032</u>	School
Tucker High (9-12)	<u>5036 LaVista Road, Tucker, GA 30084</u>	School
Tucker Middle (6-8)	<u>2160 Idlewood Road, Tucker, GA 30084</u>	School



## APPENDIX

Name	Address	Type
Vanderlyn (PK-5)	<u>1877 Vanderlyn Drive, Dunwoody, GA 30338</u>	School
Wadsworth Magnet (PK-5)	<u>2084 Green Forest Drive, Decatur, GA 30032</u>	School
Warren Tech	<u>3075 Alton Road, Atlanta, GA 30341</u>	School
Woodridge (PK-5)	<u>4120 Cedar Ridge Trail, Stone Mountain, GA 30083</u>	School
Woodward (PK-5)	<u>3034 Curtis Drive, NE, Atlanta, GA 30019</u>	School
Wynbrooke Theme (PK-5)	<u>440 Wicksbury Way, Stone Mountain, GA 30087</u>	School
Ivy Preparatory Academy At Kirkwood (IPA)	<u>1807 Memorial Drive, Atlanta, Georgia 30317</u>	School
Charles Drew Charter School	<u>301 E Lake Blvd, Atlanta, Georgia 30317</u>	School
Atlanta Charter Middle School	<u>820 Essie Ave, Atlanta, Georgia 30316</u>	School
Path Academy	<u>3007 Hermance Drive, NE, Atlanta, Georgia 30319</u>	School
St. Pius X Catholic High School, Atlanta	<u>2674 Johnson Road NE, Atlanta, Georgia 30345</u>	School
The Paideia School, Atlanta	<u>1509 Ponce De Leon Avenue Northeast, Atlanta, GA 30307</u>	School
Marist High School	<u>3790 Ashford Dunwoody Road Northeast, Atlanta, GA 30319</u>	School
Academy of Lithonia Charter School, Lithonia	<u>3235 Evans Mill Road, Lithonia, Georgia 30038</u>	School
Friends School of Atlanta, Decatur	<u>862 South Columbia Drive, Decatur, Georgia 30030</u>	School
Greenforest McCalep Christian Academic Center, Decatur	<u>3250 Rainbow Drive, Decatur, Georgia 30034</u>	School
Yeshiva Ohr Yisrael	<u>1458 Holly Lane Northeast, Atlanta, Georgia 30329</u>	School
Temima High School for Girls	<u>1985 Lavista Road Northeast, Atlanta, Georgia 30329</u>	School
Torah Day School of Atlanta	<u>1985 Lavista Road Northeast, Atlanta, Georgia 30329</u>	School
Immacualte Heart of Mary Catholic School (K-8)	<u>2855 Briaclyff road, NE, Atlanta, Georgia 30329</u>	School

## APPENDIX D: HAZARD RISK ANALYSIS



# Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan



**Carl Vinson  
Institute of Government**  
**UNIVERSITY OF GEORGIA**



## Introduction

The Federal Disaster Mitigation Act of 2000 (DMA2K) requires state, local, and tribal governments to develop and maintain a mitigation plan to be eligible for certain federal disaster assistance and hazard mitigation funding programs.

Mitigation seeks to reduce a hazard's impacts, which may include loss of life, property damage, disruption to local and regional economies, and the expenditure of public and private funds for recovery. Sound mitigation must be based on a sound risk assessment that quantifies the potential losses of a disaster by assessing the vulnerability of buildings, infrastructure, and people.

In recognition of the importance of planning in mitigation activities, FEMA Hazus-MH, a powerful disaster risk assessment tool based on geographic information systems (GIS). This tool enables communities of all sizes to predict estimated losses from floods, hurricanes, earthquakes, and other related phenomena and to measure the impact of various mitigation practices that might help reduce those losses.

In 2022, the Georgia Department of Emergency Management partnered with the Carl Vinson Institute of Government at the University of Georgia to develop a detailed risk assessment focused on defining hurricane, riverine flood, and tornado risks in DeKalb County, Georgia. This assessment identifies the characteristics and potential consequences of the disaster, how much of the community could be affected by the disaster, and the impact on community assets.

## Risk Assessment Process Overview

Hazus-MH Version 2.2 SP1 was used to perform the analyses for DeKalb County. The Hazus-MH application includes default data for every county in the US. This Hazus-MH data was derived from a variety of national sources and in some cases the data are also several years old. Whenever possible, using local provided data is preferred. DeKalb County provided building inventory information from the county's property tax assessment system. This section describes the changes made to the default Hazus-MH inventory and the modeling parameters used for each scenario.

## County Inventory Changes

The default Hazus-MH site-specific point inventory was updated using data compiled from the Georgia Emergency Management Agency (GEMA). The default Hazus-MH aggregate inventory (General Building Stock) was also updated prior to running the scenarios. Reported losses reflect the updated data sets.

## General Building Stock Updates

General Building Stock (GBS) is an inventory category that consists of aggregated data (grouped by census geography — tract or block). Hazus-MH generates a combination of site-specific and aggregated loss estimates based on the given analysis and user input.

The GBS records for DeKalb County were replaced with data derived from parcel and property assessment data obtained from DeKalb County. The county provided property assessment data was current as of November 2021 and the parcel data current as of November 2021. Records without improvements were deleted. The parcel boundaries were converted to parcel points located in the centroids of each parcel boundary; then, each parcel point was linked to an assessor record based upon matching parcel numbers. The parcel assessor match-rate for DeKalb County is 100%. The generated building inventory represents the approximate

locations (within a parcel) of structures. The building inventory was aggregated by census block. Both the tract and block tables were updated. Table 1 shows the results of the changes to the GBS tables by occupancy class.

Table 1: GBS Building Exposure Updates by Occupancy Class\*



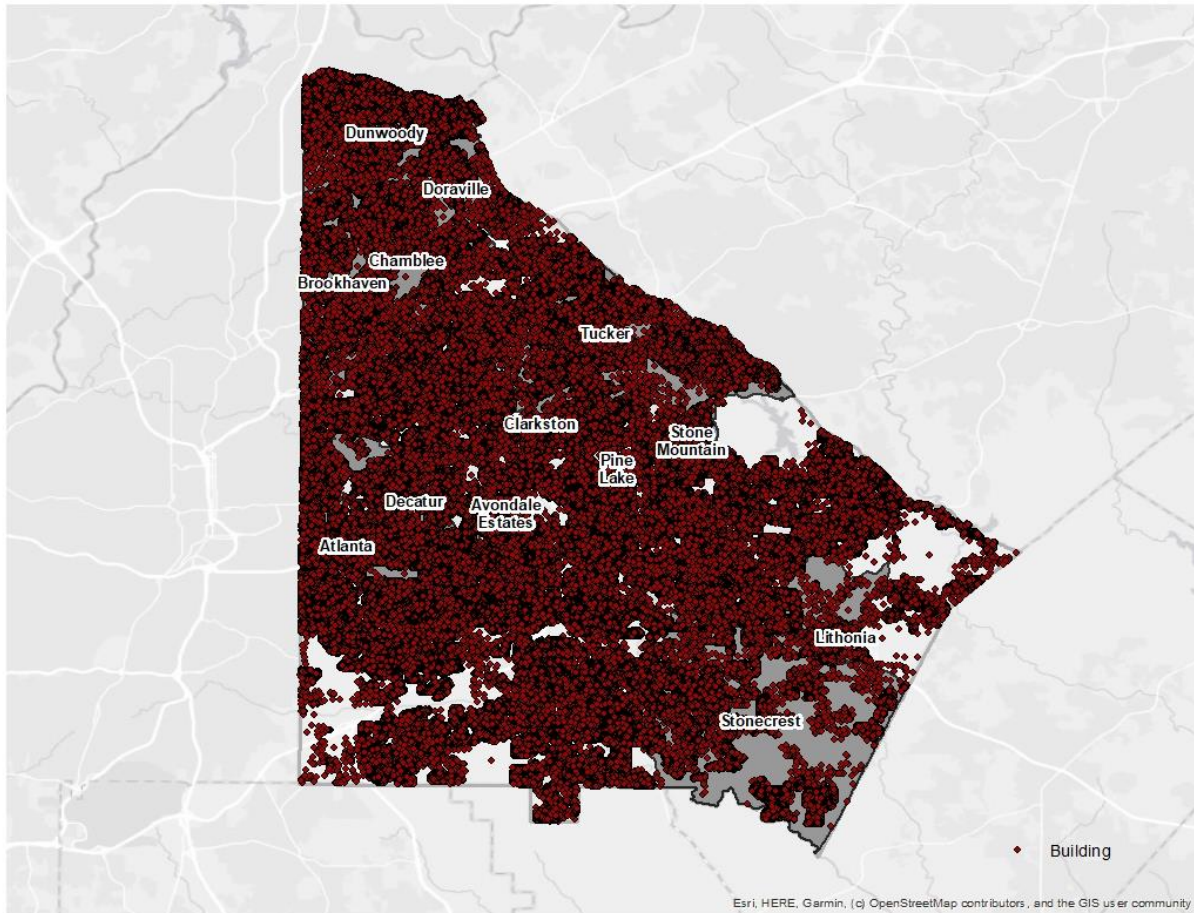


General Occupancy	Default Hazus-MH Count	Updated Count	Default Hazus-MH Exposure	Updated Exposure
Commercial	13,947	6,670	\$13,046,956,000	\$12,186,755,000
Industrial	3,328	951	\$2,315,533,000	\$1,871,459,000
Residential	206,947	213,813	\$65,913,862,000	\$124,235,839,000
Agricultural	525	0	\$196,471,000	\$0
Religious	1,583	230	\$1,526,135,000	\$250,159,000
Government	491	0	\$547,765,000	\$0
Education	639	89	\$1,513,469,000	\$323,004,000
<b>Total</b>	<b>227,460</b>	<b>221,753</b>	<b>\$85,060,191,000</b>	<b>\$138,867,216,000</b>

\*The exposure values represent the total number and replacement cost for all DeKalb County Buildings

For DeKalb County, the updated GBS was used to calculate hurricane wind losses. The flood losses and tornado losses were calculated from building inventory modeled in Hazus-MH as User-Defined Facility (UDF)<sup>2</sup>, or site-specific points. Figure 1 shows the distribution of buildings as points based on the county provided data.

<sup>2</sup> The UDF inventory category in Hazus-MH allows the user to enter site-specific data in place of GBS data.



**FIGURE 1: DEKALB COUNTY OVERVIEW**

### Essential Facility Updates

The default Hazus-MH essential facility data was updated to reflect improved information available in the Georgia Mitigation Information System (GMIS) as of November 2021. For these risk analyses, only GMIS data for buildings that Hazus-MH classified as Essential Facilities was integrated into Hazus-MH because the application provides specialized reports for these five facilities. Essential Facility inventory was updated for the analysis conducted for this report. The following table summarizes the counts and exposures, where available, by Essential Facility classification of the updated data.

#### Essential facilities include:

- Care facilities
- EOCs
- Fire stations
- Police stations
- Schools

**Table 2: Updated Essential Facilities**

Classification	Updated Count	Updated Exposure
<b>Atlanta</b>		
EOC	0	\$0
Care	3	\$45,209,000



Classification	Updated Count	Updated Exposure
Fire	0	\$0
Police	0	\$0
School	3	\$183,199,000
Total	6	\$228,408,000
<b>Avondale Estates</b>		
EOC	0	\$0
Care	0	\$0
Fire	1	\$114,000
Police	0	\$0
School	1	\$863,000
Total	2	\$977,000
<b>Brookhaven</b>		
EOC	0	\$0
Care	0	\$0
Fire	1	\$45,000
Police	1	\$34,000
School	11	\$75,038,000
Total	13	\$75,117,000
<b>Chamblee</b>		
EOC	0	\$0
Care	0	\$0
Fire	1	\$119,000
Police	0	\$0
School	5	\$14,227,000
Total	6	\$14,346,000
<b>Clarkston</b>		
EOC	0	\$0
Care	0	\$0
Fire	1	\$418,000
Police	0	\$0
School	0	\$0
Total	1	\$418,000
<b>Decatur</b>		
EOC	0	\$0
Care	0	\$0
Fire	0	\$0
Police	0	\$0
School	12	\$55,715,000



Classification	Updated Count	Updated Exposure
Total	12	\$55,715,000
<b>Doraville</b>		
EOC	0	\$0
Care	0	\$0
Fire	0	\$0
Police	0	\$0
School	2	\$10,568,000
Total	2	\$10,568,000
<b>Dunwoody</b>		
EOC	0	\$0
Care	0	\$0
Fire	3	\$31,755,000
Police	0	\$0
School	7	\$35,409,000
Total	10	\$67,164,000
<b>Lithonia</b>		
EOC	0	\$0
Care	0	\$0
Fire	0	\$0
Police	1	\$1,133,000
School	1	\$4,631,000
Total	2	\$5,764,000
<b>Pine Lake</b>		
EOC	0	\$0
Care	0	\$0
Fire	0	\$0
Police	0	\$0
School	0	\$0
Total	0	\$0
<b>Stone Mountain</b>		
EOC	0	\$0
Care	0	\$0
Fire	1	\$439,000
Police	0	\$0
School	2	\$6,351,000
Total	3	\$6,790,000
<b>Stonecrest</b>		
EOC	0	\$0



Classification	Updated Count	Updated Exposure
Care	1	\$6,655,000
Fire	2	\$809,000
Police	1	\$268,000
School	13	\$49,522,000
Total	17	\$57,254,000
<b>Tucker</b>		
EOC	1	\$17,950,000
Care	0	\$0
Fire	2	\$733,000
Police	2	\$18,117,000
School	9	\$25,004,000
Total	14	\$61,804,000
<b>Unincorporated Areas of DeKalb County</b>		
EOC	0	\$0
Care	3	\$60,133,000
Fire	14	\$9,008,000
Police	5	\$8,339,000
School	93	\$242,528,000
Total	115	\$320,008,000

### Assumptions and Exceptions

Hazus-MH loss estimates may be impacted by certain assumptions and process variances made in this risk assessment.

- The DeKalb County analysis used Hazus-MH Version 2.2 SP1, which was released by FEMA in May 2015.
- County provided parcel and property assessment data may not fully reflect all buildings in the county. For example, some counties do not report not-for-profit buildings such as government buildings, schools and churches in their property assessment data. This data was used to update the General Building Stock as well as the User Defined Facilities applied in this risk assessment.
- Georgia statute requires that the Assessor's Office assign a code to all of the buildings on a parcel based on the buildings primary use. If there is a residential or a commercial structure on a parcel and there are also agricultural buildings on the same parcel Hazus-MH looks at the residential and commercial "primary" structures first and then combines the value of all secondary structures on that parcel with the value of the primary structure. The values and building counts are still accurate but secondary structures are accounted for under the same classification as the primary structure. Because of this workflow, the only time that a parcel would show a value for an agricultural building is when there are no residential or commercial structures on the parcel thus making the agricultural building the primary structure. This is the reason that agricultural building counts and total values seem low or are nonexistent.
- GBS updates from assessor data will skew loss calculations. The following attributes were defaulted or calculated:
  - Foundation Type was set from Occupancy Class
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Replacement Cost
- It is assumed that the buildings are located at the centroid of the parcel.





- The essential facilities extracted from the GMIS were only used in the portion of the analysis designated as essential facility damage. They were not used in the update of the General Building Stock or the User Defined Facility inventory.

The hazard models included in this risk assessment included:

- Hurricane assessment which was comprised of a wind only damage assessment.
- Flood assessment based on the 1% annual chance event that includes riverine assessments.
- Tornado assessment based on GIS modeling.

## Hurricane Risk Assessment

### Hazard Definition

The National Hurricane Center describes a hurricane as a tropical cyclone in which the maximum sustained wind is, at minimum, 74 miles per hour (mph)<sup>3</sup>. The term hurricane is used for Northern Hemisphere tropical cyclones east of the International Dateline to the Greenwich Meridian. The term typhoon is used for Pacific tropical cyclones north of the Equator west of the International Dateline. Hurricanes in the Atlantic Ocean, Gulf of Mexico, and Caribbean form between June and November with the peak of hurricane season occurring in the middle of September. Hurricane intensities are measured using the Saffir-Simpson Hurricane Wind Scale (Table 3). This scale is a 1 to 5 categorization based on the hurricane's intensity at the indicated time.

Hurricanes bring a complex set of impacts. The winds from a hurricane produce a rise in the water level at landfall called storm surge. Storm surges produce coastal flooding effects that can be as damaging as the hurricane's winds. Hurricanes bring very intense inland riverine flooding. Hurricanes can also produce tornadoes that can add to the wind damages inland. In this risk assessment, only hurricane winds, and coastal storm surge are considered.

Table 3: Saffir-Simpson Hurricane Wind Scale

Category	Wind Speed (mph)	Damage
1	74 - 95	Very dangerous winds will produce some damage
2	96 - 110	Extremely dangerous winds will cause extensive damage
3	111 - 130	Devastating damage will occur
4	131 - 155	Catastrophic damage will occur
5	> 155	Catastrophic damage will occur

The National Oceanic and Atmospheric Administration's National Hurricane Center created the HURDAT database, which contains all of the tracks of tropical systems since the mid-1800s. This database was used to document the number of tropical systems that have affected DeKalb County by creating a 20-mile buffer around the county to include storms that didn't make direct landfall in DeKalb County but impacted the county. Note that the storms listed contain the peak sustained winds, maximum pressure and maximum attained storm strength for the entire storm duration. Since 1859, DeKalb County has had 16 tropical systems within 20 miles of its county borders (Table 4).

Table 4: Tropical Systems affecting DeKalb County<sup>4</sup>

YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1859	September 15-18	UNNAME D	81	0	H1

<sup>3</sup> National Hurricane Center (2011). "Glossary of NHC Terms." National Oceanic and Atmospheric Administration. <http://www.nhc.noaa.gov/aboutgloss.shtml#h>. Retrieved 2012-23-02.

<sup>4</sup> Atlantic Oceanic and Meteorological Laboratory (2012). "Data Center." National Oceanic and Atmospheric Administration. [http://www.aoml.noaa.gov/hrd/data\\_sub/re\\_anal.html](http://www.aoml.noaa.gov/hrd/data_sub/re_anal.html). Retrieved 7-20-2015.



YEAR	DATE RANGE	NAME	MAX WIND(Knots)	MAX PRESSURE	MAX CAT
1887	July 20-28	UNNAME D	98	0	H2
1893	September 27 - October 05	UNNAME D	132	948	H4
1900	September 11-15	UNNAME D	52	0	TS
1902	October 03-13	UNNAME D	104	970	H2
1903	September 09-16	UNNAME D	92	988	H1
1907	September 18-23	UNNAME D	46	0	TS
1911	August 23-31	UNNAME D	98	972	H2
1912	June 07-17	UNNAME D	69	0	TS
1940	August 05-14	UNNAME D	98	1008	H2
1959	October 06-09	IRENE	46	1003	TS
1994	June 30 - July 07	ALBERTO	63	1014	TS
1994	August 14-19	BERYL	58	1013	TS
1995	August 22-28	JERRY	40	1010	TS
1997	July 16-27	DANNY	81	1013	H1
2004	August 25 - September 10	FRANCE S	144	1009	H4

## Category Definitions:

TS – Tropical storm

TD – Tropical depression

H1 – Category 1 (same format for H2, H3, and H4)

E – Extra-tropical cyclone

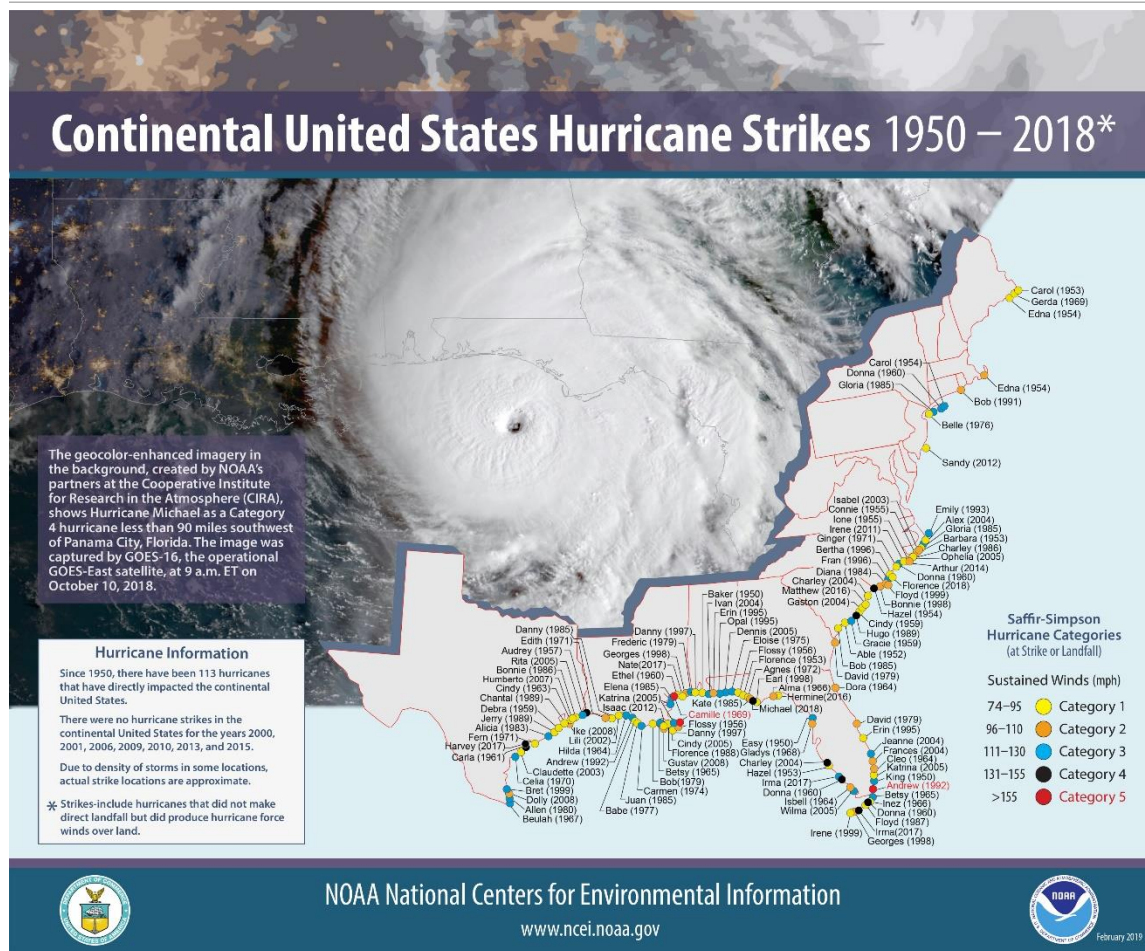


FIGURE 2: CONTINENTAL UNITED STATES HURRICANE STRIKES: 1950 TO 2018<sup>5</sup>

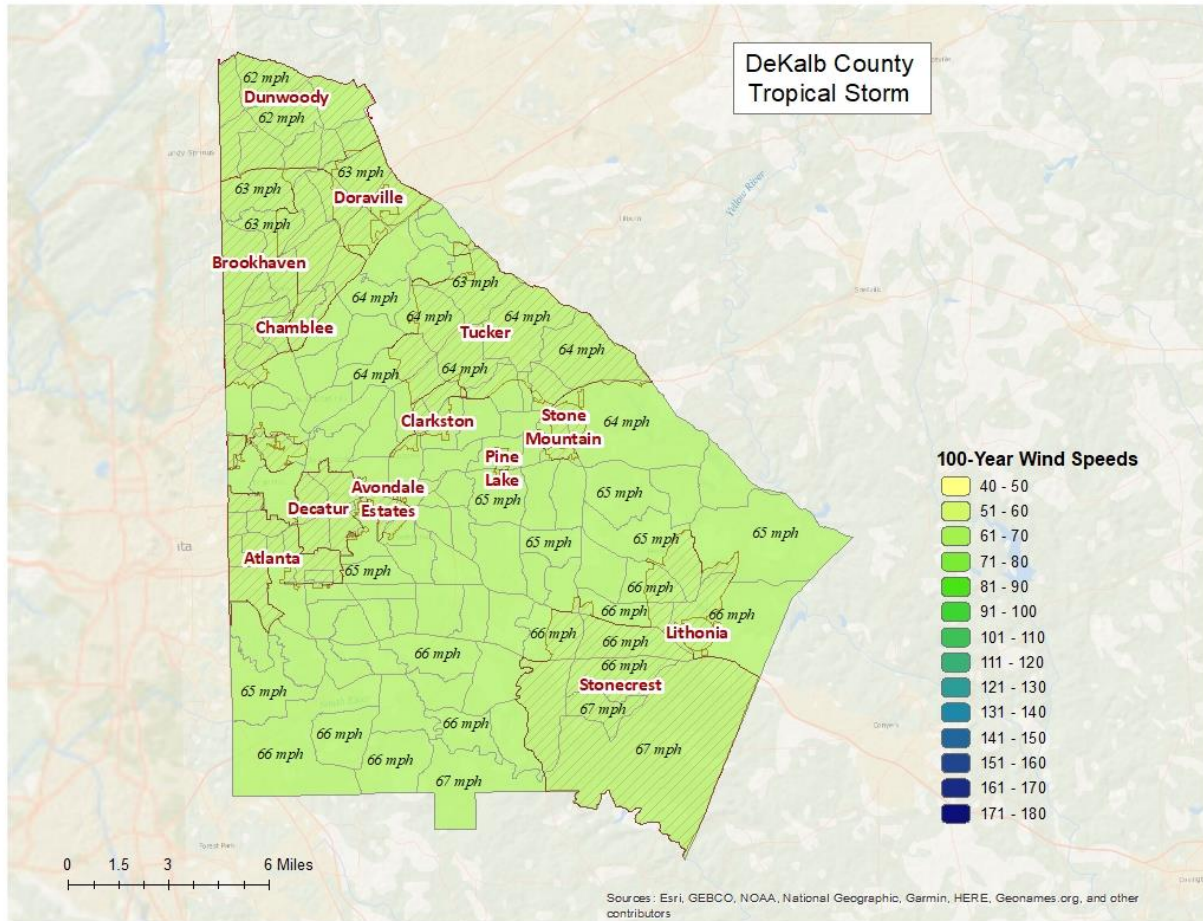
### Probabilistic Hurricane Scenario

The following probabilistic wind damage risk assessment modeled a Tropical Storm with maximum winds of 67 mph.

### Wind Damage Assessment

Separate analyses were performed to determine wind and hurricane storm surge related flood losses. This section describes the wind-based losses to DeKalb County. Wind losses were determined from probabilistic models run for the Tropical Storm which equates to the 1% chance storm event. Figure 3 shows wind speeds for the modeled Tropical Storm.

<sup>5</sup> Source: NOAA National Centers for Environmental Information



**FIGURE 3: WIND SPEEDS BY STORM CATEGORY**

### Wind-Related Building Damages

Buildings in DeKalb County are vulnerable to storm events, and the cost to rebuild may have significant consequences to the community. The following table shows a summary of the results of wind-related building damage in DeKalb County for the Tropical Storm (100 Year Event). The loss ratio expresses building losses as a percentage of total building replacement cost in the county. Figure 4 illustrates the building loss ratios of the modeled Tropical Storm.

**Table 5: Hurricane Wind Building Damage**

Classification	Number of Buildings Damaged	Total Building Damage	Total Economic Loss <sup>6</sup>	Loss Ratio
Tropical Storm	232	\$53,991,190	\$69,558,650	0.04%

Note that wind damaged buildings are not reported by jurisdiction. This is due to the fact that census tract boundaries – upon which hurricane building losses are based – do not closely coincide with jurisdiction boundaries.

<sup>6</sup> Includes property damage (infrastructure, contents, and inventory) as well as business interruption losses.



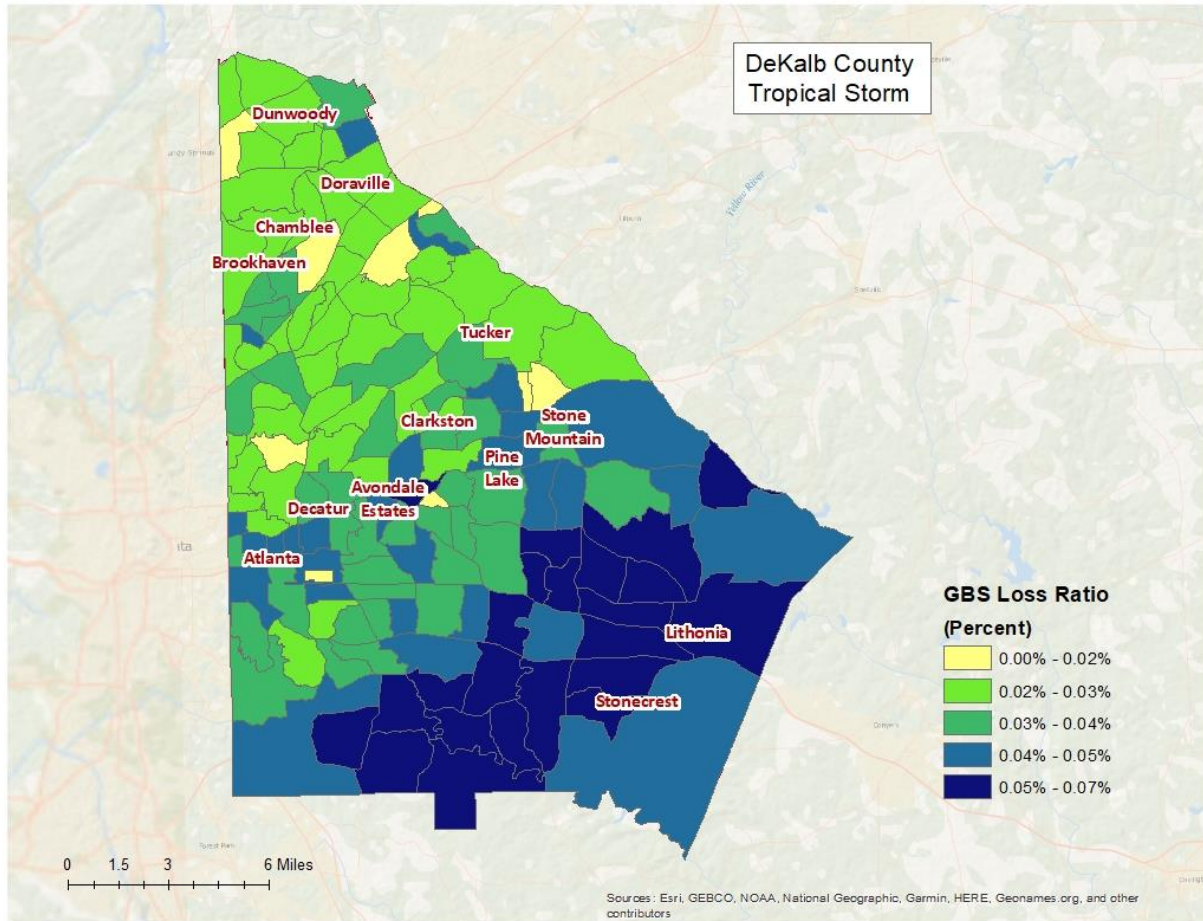


FIGURE 4: HURRICANE WIND BUILDING LOSS RATIOS

### Essential Facility Losses

Essential facilities are also vulnerable to storm events, and the potential loss of functionality may have significant consequences to the community. Hazus-MH identified the essential facilities that may be moderately or severely damaged by winds. The results are compiled in Table 6.

There are 203 essential facilities in DeKalb County.

Classification	Number
EOCs	1
Fire Stations	26
Care Facilities	7
Police Stations	10
Schools	159

Table 6: Wind-Damaged Essential Facility Losses

Classification	Facilities At Least Moderately Damaged > 50%	Facilities Completely Damaged > 50%	Facilities with Expected Loss of Use (< 1 day)
Tropical Storm	1	0	203





### Shelter Requirements

Hazus-MH estimates the number of households evacuated from buildings with severe damage from high velocity winds as well as the number of people who will require short-term sheltering. Since the 1% chance storm event for DeKalb County is a Tropical Storm, the resulting damage is not enough to displace Households or require temporary shelters as shown in the results listed in Table 7.

Table 7: Displaced Households and People

Classification	# of Displaced Households	# of People Needing Short-Term Shelter
Tropical Storm	0	0

### Debris Generated from Hurricane Wind

Hazus-MH estimates the amount of debris that will be generated by high velocity hurricane winds and quantifies it into three broad categories to determine the material handling equipment needed:

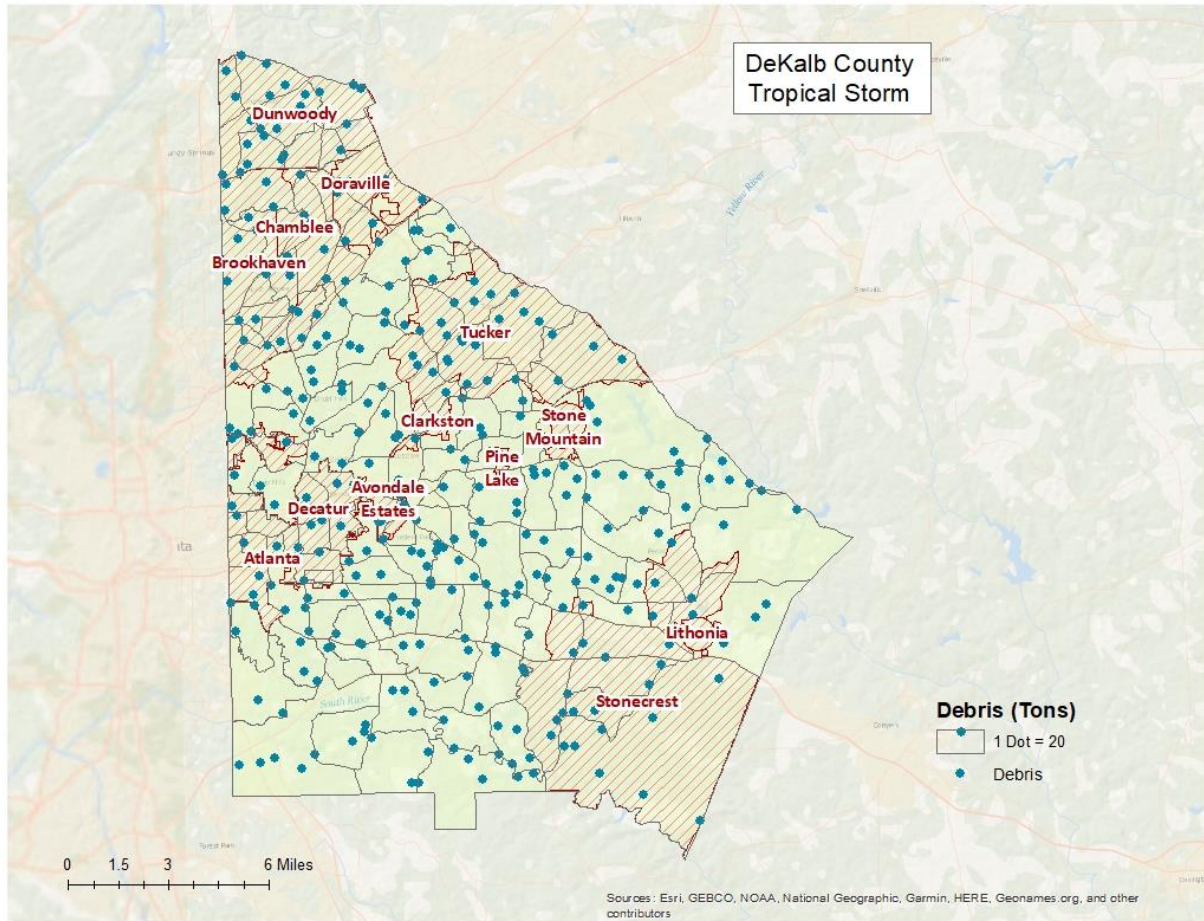
- Reinforced Concrete and Steel Debris
- Brick and Wood and Other Building Debris
- Tree Debris

Different material handling equipment is required for each category of debris. The estimates of debris for this scenario are listed in Table 8. The amount of hurricane wind related tree debris that is estimated to require pick up at the public's expense is listed in the eligible tree debris column.

Table 8: Wind-Related Debris Weight (Tons)

Classification	Brick, Wood, and Other	Reinforced Concrete and Steel	Eligible Tree Debris	Other Tree Debris	Total
Tropical Storm	757	0	5,922	3,259	9,938

Figure 5 shows the distribution of all wind related debris resulting from a Tropical Storm. Each dot represents 20 tons of debris within the census tract in which it is located. The dots are randomly distributed within each census tract and therefore do not represent the specific location of debris sites.



**FIGURE 5: WIND-RELATED DEBRIS WEIGHT (TONS)**



## Flood Risk Assessment

### Hazard Definition

Flooding is a significant natural hazard throughout the United States. The type, magnitude, and severity of flooding are functions of the amount and distribution of precipitation over a given area, the rate at which precipitation infiltrates the ground, the geometry and hydrology of the catchment, and flow dynamics and conditions in and along the river channel. Floods can be classified as one of three types: upstream floods, downstream floods, or coastal floods.

Upstream floods, also called flash floods, occur in the upper parts of drainage basins and are generally characterized by periods of intense rainfall over a short duration. These floods arise with very little warning and often result in locally intense damage, and sometimes loss of life, due to the high energy of the flowing water. Flood waters can snap trees, topple buildings, and easily move large boulders or other structures. Six inches of rushing water can upend a person; another 18 inches might carry off a car. Generally, upstream floods cause damage over relatively localized areas, but they can be quite severe in the local areas in which they occur. Urban flooding is a type of upstream flood. Urban flooding involves the overflow of storm drain systems and can be the result of inadequate drainage combined with heavy rainfall or rapid snowmelt. Upstream or flash floods can occur at any time of the year in Georgia, but they are most common in the spring and summer months.

Downstream floods, also called riverine floods, refer to floods on large rivers at locations with large upstream catchments. Downstream floods are typically associated with precipitation events that are of relatively long duration and occur over large areas. Flooding on small tributary streams may be limited, but the contribution of increased runoff may result in a large flood downstream. The lag time between precipitation and time of the flood peak is much longer for downstream floods than for upstream floods, generally providing ample warning for people to move to safe locations and, to some extent, secure some property against damage.

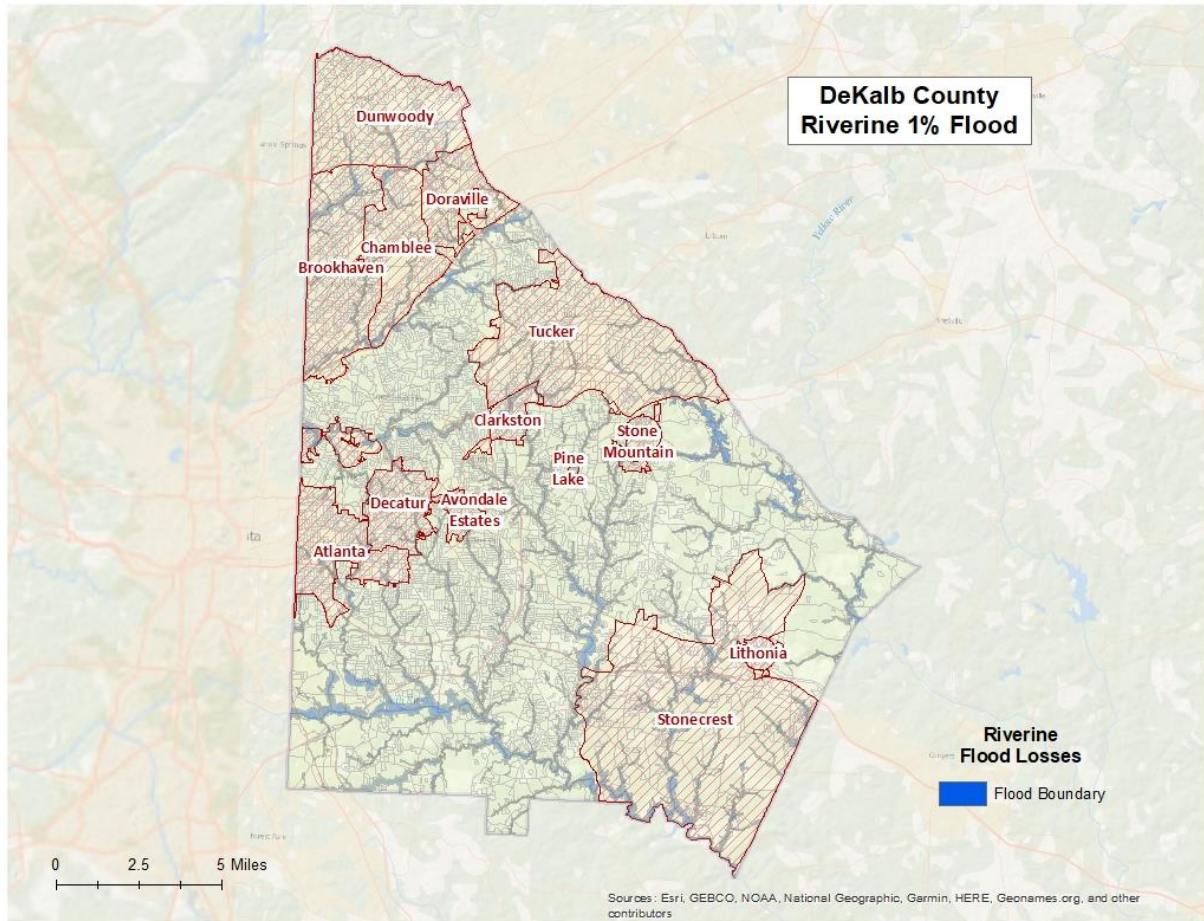
Coastal floods occurring on the Atlantic and Gulf coasts may be related to hurricanes or other combined offshore, nearshore, and shoreline processes. The effects of these complex interrelationships vary significantly across coastal settings, leading to challenges in the determination of the base (1-percent-annual-chance) flood for hazard mapping purposes. Land area covered by floodwaters of the base flood is identified as a Special Flood Hazard Area (SFHA). The DeKalb County flood risk assessment analyzed at risk structures in the SFHA.

The SFHA is the area where the National Flood Insurance Program's (NFIP) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The owner of a structure in a high-risk area must carry flood insurance, if the owner carries a mortgage from a federally regulated or insured lender or

The following probabilistic risk assessment involves an analysis of a 1% annual chance riverine flood event (100-Year Flood) and a 1% annual chance coastal flood.

### Riverine 1% Flood Scenario

Riverine losses were determined from the 1% flood boundaries downloaded from the FEMA Flood Map Service Center in January 2022. The flood boundaries were overlaid with the USGS 10 meter DEM using the Hazus-MH Enhanced Quick Look tool to generate riverine depth grids. The riverine flood depth grid was then imported into Hazus-MH to calculate the riverine flood loss estimates. Figure 6 illustrates the riverine inundation boundary associated with the 1% annual chance.



**FIGURE 6: RIVERINE 1% FLOOD INUNDATION**



**Riverine 1% Flood Building Damages**

Buildings in DeKalb County are vulnerable to flooding from events equivalent to the 1% riverine flood. The economic and social impacts from a flood of this magnitude can be significant. Table 9 provides a summary of the potential flood-related building damage in DeKalb County by jurisdiction that might be experienced from the 1% flood. Figure 7 maps the potential loss ratios of total building exposure to losses sustained to buildings from the 1% flood by 2010 census block and Figure 8 illustrates the relationship of building locations to the 1% flood inundation boundary.

**TABLE 9: DEKALB COUNTY RIVERINE 1% BUILDING LOSSES**

OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
<b>ATLANTA</b>					
COMMERCIAL	291	9	\$268,698,650	\$1,791,840	0.67%
RELIGIOUS	33	1	\$26,063,010	\$47,676	0.18%
RESIDENTIAL	12,181	182	\$9,728,152,969	\$30,868,391	0.32%
<b>AVONDALE ESTATES</b>					
RESIDENTIAL	1,495	12	\$1,118,375,123	\$3,669,867	0.33%
COMMERCIAL	74	1	\$33,711,240	\$27,701	0.08%
<b>BROOKHAVEN</b>					
RESIDENTIAL	13,616	241	\$13,731,481,344	\$46,482,665	0.34%
COMMERCIAL	327	6	\$1,984,293,540	\$28,361,187	1.43%
INDUSTRIAL	19	2	\$32,860,630	\$920,356	2.80%
<b>CHAMBLEE</b>					
COMMERCIAL	685	7	\$1,020,323,120	\$1,253,667	0.12%
INDUSTRIAL	149	1	\$168,908,930	\$181,776	0.11%
RESIDENTIAL	5,726	118	\$3,592,454,771	\$14,851,744	0.41%
<b>CLARKSTON</b>					
RESIDENTIAL	1,160	15	\$364,225,849	\$516,595	0.14%
<b>DECATUR</b>					





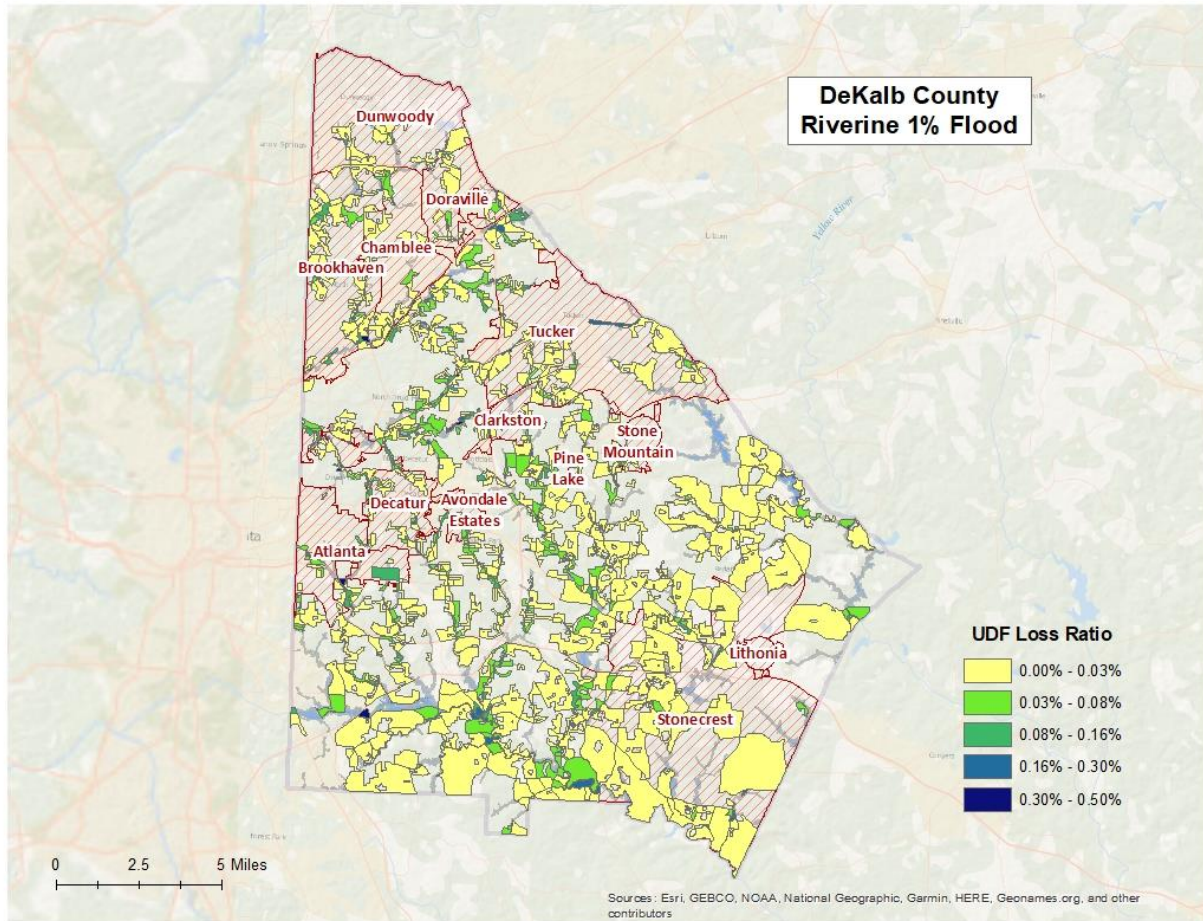
## APPENDIX

OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
COMMERCIAL	288	1	\$550,474,460	\$95,611	0.02%
INDUSTRIAL	15	1	\$3,801,220	\$120,631	3.17%
RESIDENTIAL	7,362	207	\$8,584,234,852	\$33,093,188	0.39%
DORAVILLE					
RESIDENTIAL	2,292	57	\$1,145,344,710	\$7,160,796	0.63%
COMMERCIAL	447	4	\$577,378,570	\$1,438,878	0.25%
INDUSTRIAL	97	2	\$172,759,740	\$496,380	0.29%
DUNWOODY					
RESIDENTIAL	12,607	42	\$10,478,841,349	\$5,619,995	0.05%
COMMERCIAL	400	2	\$2,254,785,560	\$13,026	0.00%
PINE LAKE					
RESIDENTIAL	343	10	\$153,868,426	\$920,951	0.60%
STONE MOUNTAIN					
RESIDENTIAL	1,978	29	\$571,337,319	\$1,906,618	0.33%
STONECREST					
COMMERCIAL	453	8	\$877,969,346	\$4,508,706	0.51%
INDUSTRIAL	120	1	\$231,795,755	\$515,005	0.24%
RESIDENTIAL	16,683	377	\$6,635,461,086	\$38,526,782	0.58%
TUCKER					
INDUSTRIAL	216	3	\$523,171,040	\$269,764	0.05%
RESIDENTIAL	11,302	162	\$6,939,302,119	\$18,903,800	0.27%

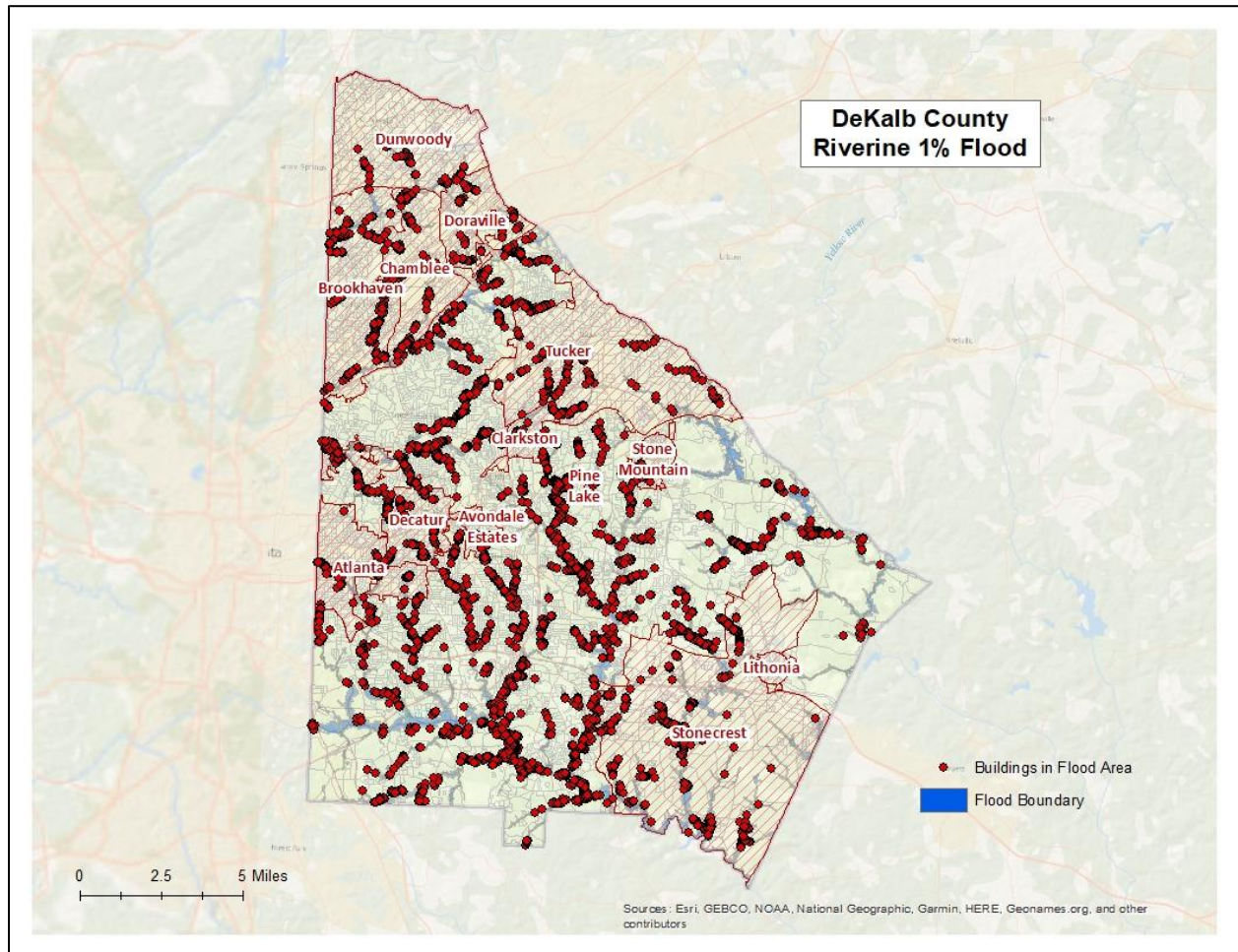


## APPENDIX

OCCUPANCY	TOTAL BUILDINGS IN THE JURISDICTION	TOTAL BUILDINGS DAMAGED IN THE JURISDICTION	TOTAL BUILDING EXPOSURE IN THE JURISDICTION	TOTAL LOSSES TO BUILDINGS IN THE JURISDICTION	LOSS RATIO OF EXPOSED BUILDINGS TO DAMAGED BUILDINGS IN THE JURISDICTION
COMMERCIAL	756	4	\$1,363,291,350	\$18,882,002	1.39%
UNINCORPORATED					
INDUSTRIAL	251	8	\$286,170,621	\$4,214,169	1.47%
RELIGIOUS	153	8	\$154,474,160	\$5,370,178	3.48%
COMMERCIAL	2,680	53	\$3,097,482,997	\$8,977,502	0.29%
RESIDENTIAL	126,579	2,842	\$61,044,179,900	\$339,233,087	0.56%
COUNTY TOTAL					
	220,778	4,416	\$137,697,673,756	\$619,240,534	



**FIGURE 7: DeKALB COUNTY POTENTIAL LOSS RATIOS OF TOTAL BUILDING EXPOSURE TO LOSSES SUSTAINED TO BUILDINGS FROM THE 1% RIVERINE FLOOD BY 2010 CENSUS BLOCK**



**FIGURE 8: DeKALB COUNTY DAMAGED BUILDINGS IN RIVERINE FLOODPLAIN (1% FLOOD)**

### Riverine 1% Flood Essential Facility Losses

An essential facility may encounter many of the same impacts as other buildings within the flood boundary. These impacts can include structural failure, extensive water damage to the facility and loss of facility functionality (e.g. a damaged police station will no longer be able to serve the community). The analysis identified one essential facility that was subject to damage in the DeKalb County riverine 1% probability floodplain.

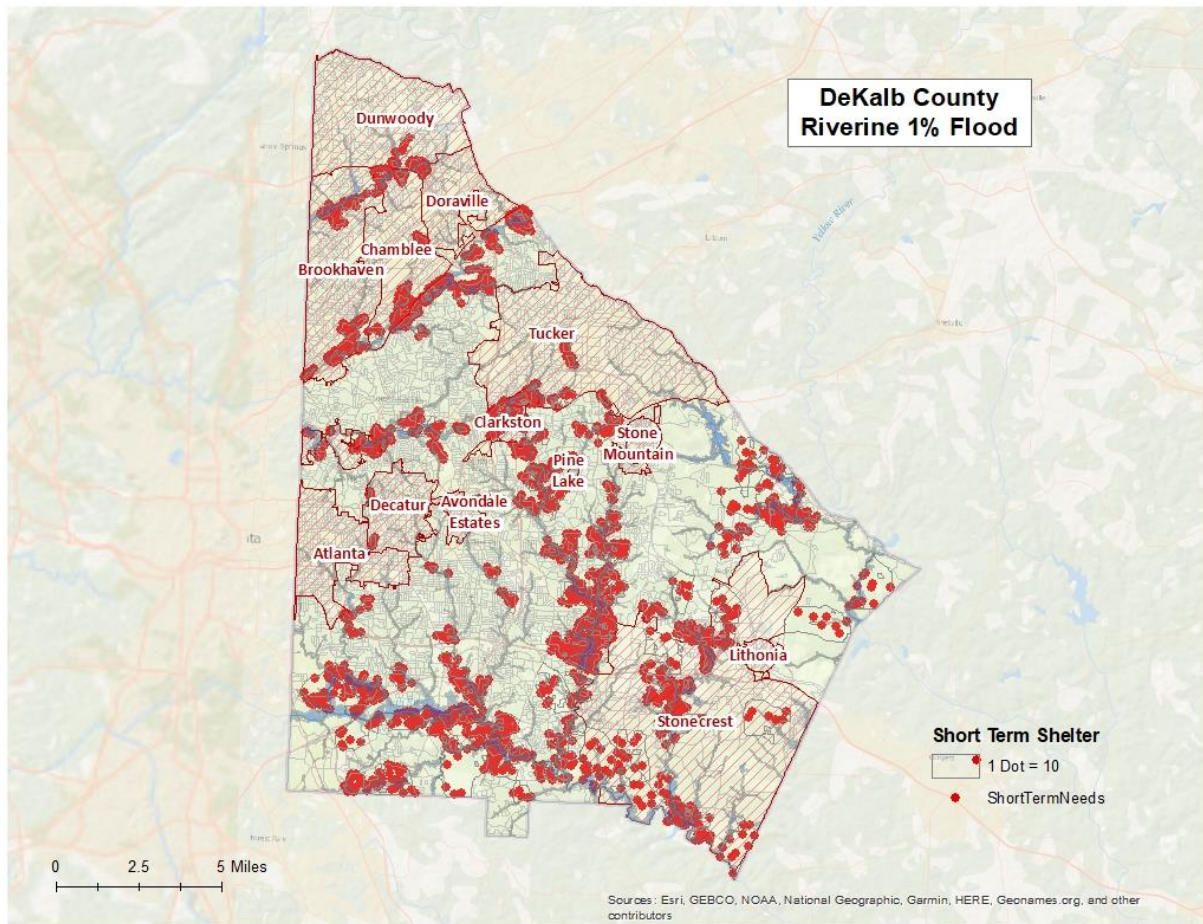
**TABLE 10: RIVERINE 1% FLOOD DAMAGED ESSENTIAL FACILITIES**

Name	Category	City
Fire Station 24	Fire Station	Stone Mountain



### Riverine 1% Flood Shelter Requirements

Hazus-MH estimates that the number of households that are expected to be displaced from their homes due to riverine flooding and the associated potential evacuation. The model estimates 13,994 households might be displaced due to the flood. Displacement includes households evacuated within or very near to the inundated area. Displaced households represent 41,982 individuals, of which 34,704 may require short term publicly provided shelter. The results are mapped in Figure 9.



**FIGURE 9: RIVERINE 1% ESTIMATED FLOOD SHELTER REQUIREMENTS**



## Riverine 1% Flood Debris

Hazus-MH estimates the amount of debris that will be generated by the flood. The model breaks debris into three general categories:

- Finishes (dry wall, insulation, etc.)
- Structural (wood, brick, etc.)
- Foundations (concrete slab, concrete block, rebar, etc.)

Different types of material handling equipment will be required for each category. Debris definitions applied in Hazus-MH are unique to the Hazus-MH model and so do not necessarily conform to other definitions that may be employed in other models or guidelines.

The analysis estimates that an approximate total of 172,505 tons of debris might be generated: 1) Finishes- 58,632 tons; 2) Structural – 58,251 tons; and 3) Foundations- 55,622 tons. The results are mapped in Figure 10.

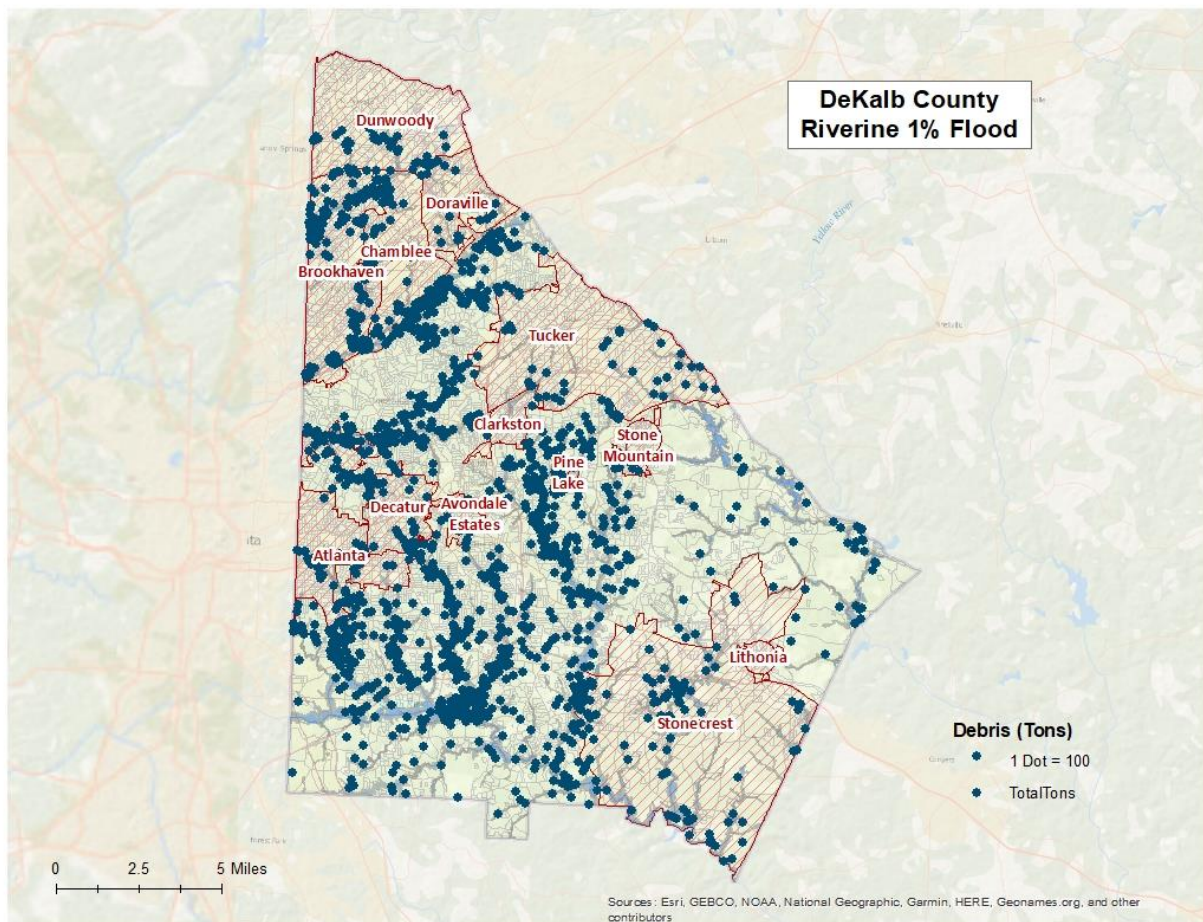


Figure 10: Riverine 1% Flood Debris Weight (Tons)



## Tornado Risk Assessment

## Hazard Definition

Tornadoes pose a great risk to the state of Georgia and its citizens. Tornadoes can occur at any time during the day or night. They can also happen during any month of the year. The unpredictability of tornadoes makes them one of Georgia's most dangerous hazards. Their extreme winds are violently destructive when they touch down in the region's developed and populated areas. Current estimates place the maximum velocity at about 300 miles per hour, but higher and lower values can occur. A wind velocity of 200 miles per hour will result in a wind pressure of 102.4 pounds per square foot of surface area—a load that exceeds the tolerance limits of most buildings. Considering these factors, it is easy to understand why tornadoes can be so devastating for the communities they hit.

Tornadoes are defined as violently-rotating columns of air extending from thunderstorms and cyclonic events. Funnel clouds are rotating columns of air not in contact with the ground; however, the violently-rotating column of air can reach the ground very quickly and become a tornado. If the funnel cloud picks up and blows debris, it has reached the ground and is a tornado.

Tornadoes are classified according to the Fujita tornado intensity scale. Originally introduced in 1971, the scale was modified in 2006 to better define the damage and estimated wind scale. The Enhanced Fujita Scale ranges from low intensity EF0 with effective wind speeds of 65 to 85 miles per hour, to EF5 tornadoes with effective wind speeds of over 200 miles per hour. The Enhanced Fujita intensity scale is included in Table 11.

TABLE 11: ENHANCED FUJITA TORNADO RATING

Fujita Number	Estimated Wind Speed	Path Width	Path Length	Description of Destruction
<b>EF0</b> Gale	65-85 mph	6-17 yards	0.3-0.9 miles	Light damage, some damage to chimneys, branches broken, sign boards damaged, shallow-rooted trees blown over.
<b>EF1</b> Moderate	86-110 mph	18-55 yards	1.0-3.1 miles	Moderate damage, roof surfaces peeled off, mobile homes pushed off foundations, attached garages damaged.
<b>EF2</b> Significant	111-135 mph	56-175 yards	3.2-9.9 miles	Considerable damage, entire roofs torn from frame houses, mobile homes demolished, boxcars pushed over, large trees snapped or uprooted.
<b>EF3</b> Severe	136-165 mph	176-566 yards	10-31 miles	Severe damage, walls torn from well-constructed houses, trains overturned, most trees in forests uprooted, heavy cars thrown about.
<b>EF4</b> Devastating	166-200 mph	0.3-0.9 miles	32-99 miles	Complete damage, well-constructed houses leveled, structures with weak foundations blown off for some distance, large missiles generated.
<b>EF5</b> Incredible	> 200 mph	1.0-3.1 miles	100-315 miles	Foundations swept clean, automobiles become missiles and thrown for 100 yards or more, steel-reinforced concrete structures badly damaged.

Source: <http://www.srh.noaa.gov>

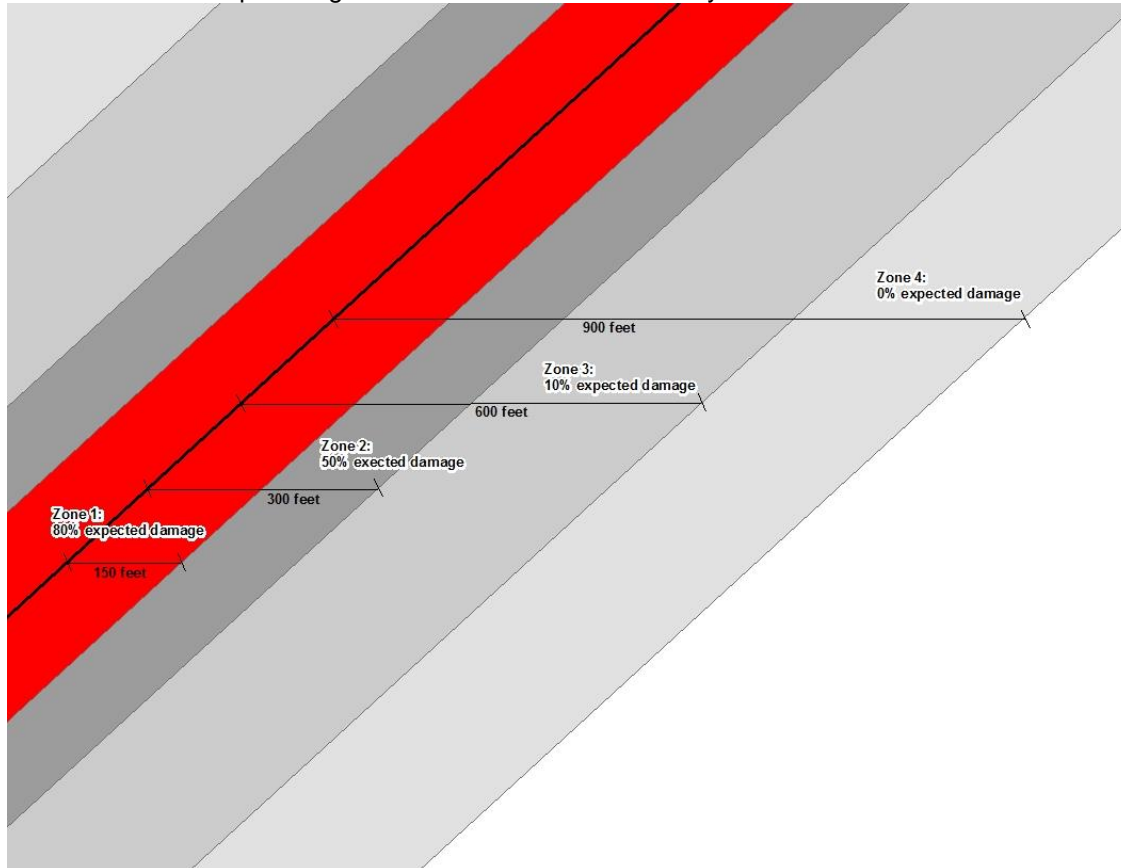
## Hypothetical Tornado Scenario

For this report, an EF3 tornado was modeled to illustrate the potential impacts of tornadoes of this magnitude in the county. The analysis used a hypothetical path based upon an EF3 tornado event running along the predominant direction of historical tornados (southeast to northwest). The tornado path was placed to travel through Atlanta, Decatur and Avondale Estates. The selected widths were modeled after a re-creation of the Fujita-Scale guidelines based on conceptual wind speeds, path widths, and path lengths. There is no guarantee that every tornado will fit exactly into one of these categories. Table 12 depicts tornado path widths and expected damage.

TABLE 12: TORNADO PATH WIDTHS AND DAMAGE CURVES

Fujita Scale	Path Width (feet)	Maximum Expected Damage
EF-5	2,400	100%
EF-4	1,800	100%
EF-3	1,200	80%
EF-2	600	50%
EF-1	300	10%
EF-0	300	0%

Within any given tornado path there are degrees of damage. The most intense damage occurs within the center of the damage path, with decreasing amounts of damage away from the center. After the hypothetical path is digitized on a map, the process is modeled in GIS by adding buffers (damage zones) around the tornado path. Figure 11 describes the zone analysis.



**FIGURE 11: EF SCALE TORNADO ZONES**

AN EF3 TORNADO HAS FOUR DAMAGE ZONES, DEPICTED IN TABLE 13. MAJOR DAMAGE IS ESTIMATED WITHIN 150 FEET OF THE TORNADO PATH. THE OUTER BUFFER IS 900 FEET FROM THE TORNADO PATH, WITHIN WHICH BUILDINGS WILL NOT EXPERIENCE ANY DAMAGE. THE SELECTED HYPOTHETICAL TORNADO PATH IS DEPICTED IN FIGURE 12 AND THE DAMAGE CURVE BUFFER ZONES ARE SHOWN IN FIGURE 13.

**TABLE 13: EF3 TORNADO ZONES AND DAMAGE CURVES**

Zone	Buffer (feet)	Damage Curve
1	0-150	80%
2	150-300	50%
3	300-600	10%
4	600-900	0%



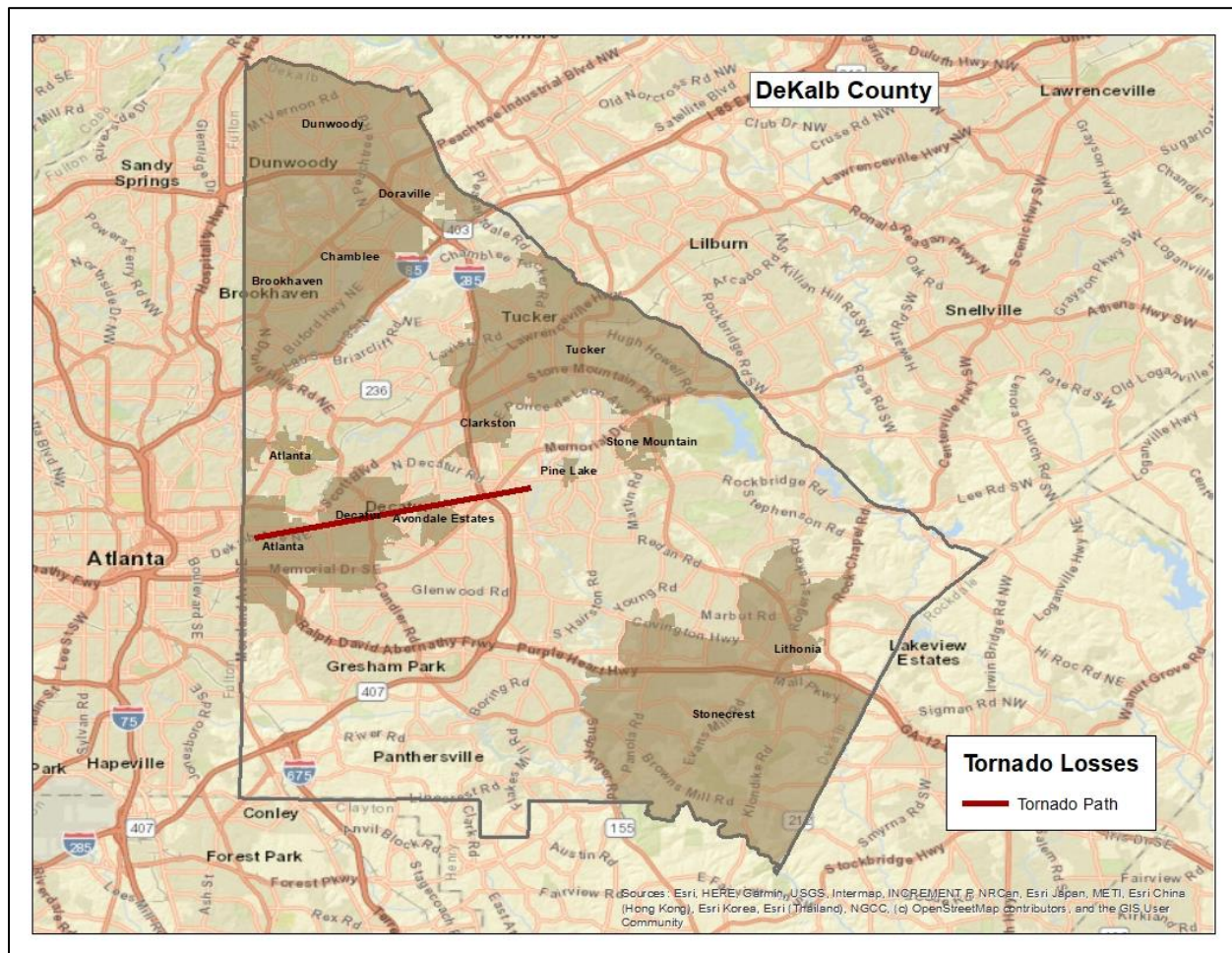
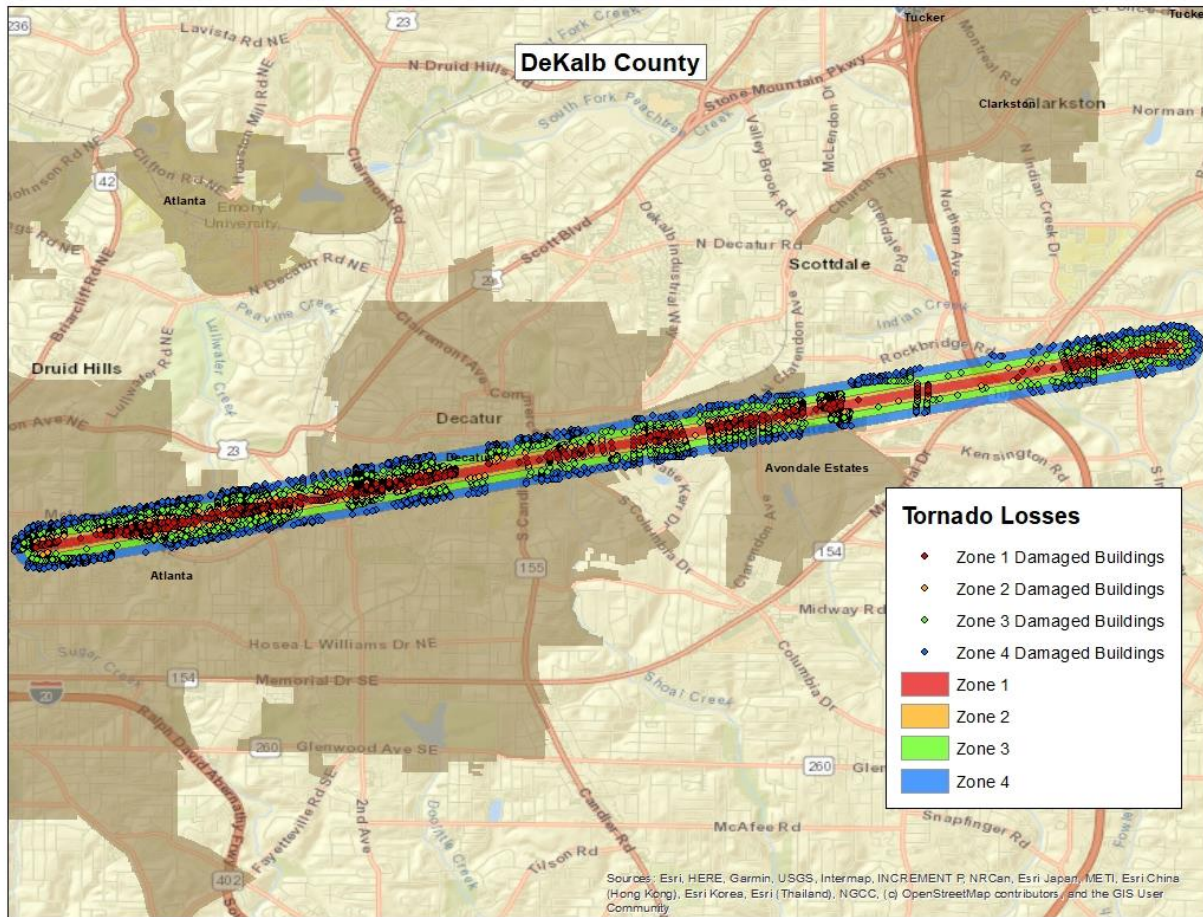


FIGURE 12: HYPOTHETICAL EF3 TORNADO PATH IN DEKALB COUNTY



**FIGURE 13: MODELED EF3 TORNADO DAMAGE BUFFERS IN DEKALB COUNTY**

### EF3 Tornado Building Damages

The analysis estimated that approximately 3708 buildings could be damaged, with estimated building losses of \$745 million. The building losses are an estimate of building replacement costs multiplied by the percentages of damage. The overlay was performed against parcels provided by DeKalb County that were joined with Assessor records showing estimated property replacement costs. The Assessor records often do not distinguish parcels by occupancy class if the parcels are not taxable and thus the number of buildings and replacement costs may be underestimated. The results of the analysis are depicted in Table 14.

**TABLE 14: ESTIMATED BUILDING LOSSES BY OCCUPANCY TYPE**

Occupancy	Buildings Damaged	Building Losses
Commercial	184	\$29,799,298
Education	6	\$4,490,370
Industrial	23	\$2,407,978
Religious	2	\$44,173
Residential	3,493	\$707,780,592
<b>Total</b>	<b>3,708</b>	<b>\$744,522,411</b>



**EF3 Tornado Essential Facility Damage**

There were six essential facilities located in the tornado path – five schools and one fire station. Table 15 outlines the specific facility and the amount of damage under the scenario.

**TABLE 15: ESTIMATED ESSENTIAL FACILITIES DAMAGED**

Facility	Amount of Damage
Agnes Scott College	Major Damage
Decatur High School	Minor Damage
Dunwoody Elementary School (PK-5)	Minor Damage
Renfro Middle School	Minor Damage
Talley Street Upper Elementary School	Minor Damage
Fire Station 3	Minor Damage

According to the Georgia Department of Education, Decatur High School's enrollment was approximately 1,732 students, Dunwoody Elementary (PK-5) School's enrollment was approximately 409 students, Renfro Middle School's enrollment was approximately 1,339 students, and Talley Street Upper Elementary School's enrollment was approximately 697 students as of October 2021. Agnes Scott College's enrollment was approximately 1,014 students as of Fall Semester 2020. Depending on the time of day, a tornado strike as depicted in this scenario could result in significant injury and loss of life. In addition, arrangements would have to be made for the continued education of the students in another location.

The location of the damaged Essential Facility is mapped in Figure 14.

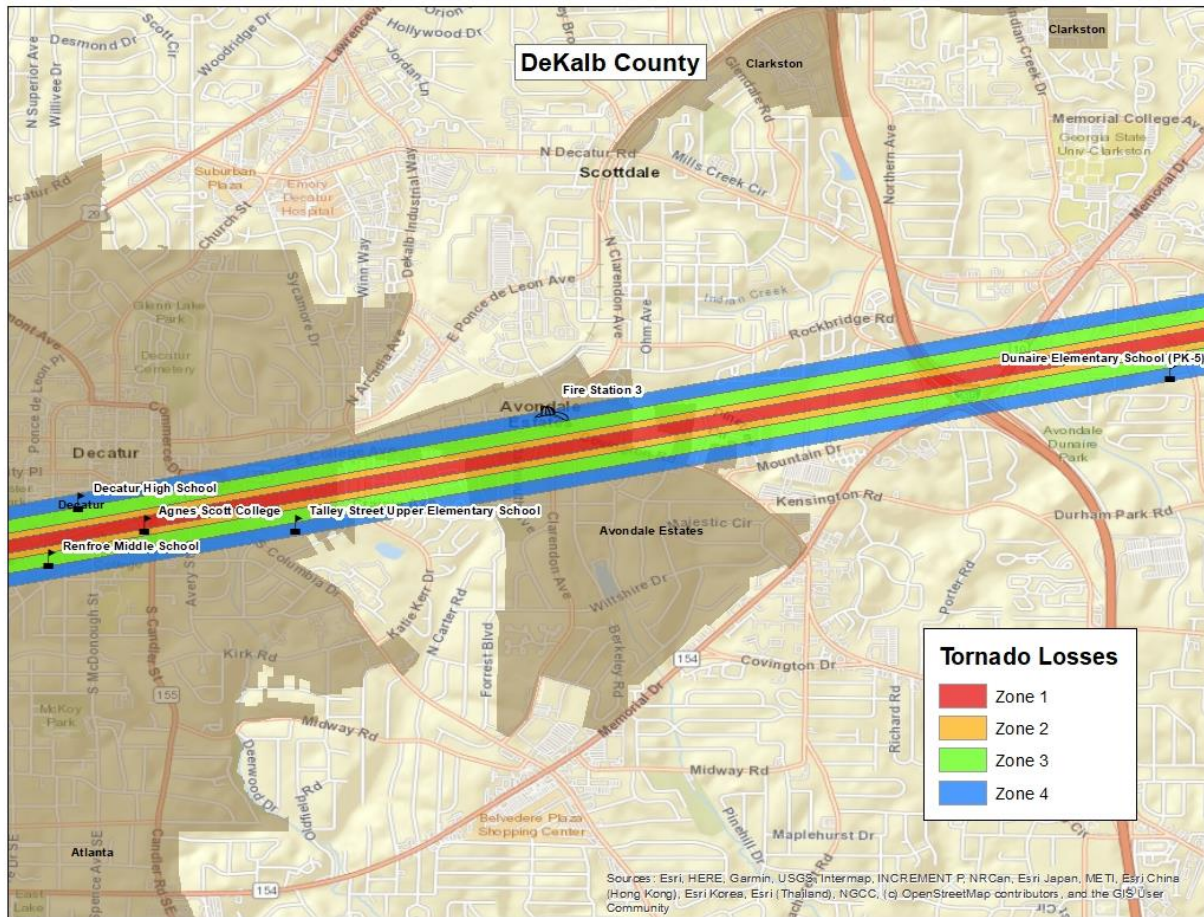


FIGURE 14: MODELED ESSENTIAL FACILITY DAMAGE IN DEKALB COUNTY



## Exceptions Report

Hazus Version 2.2 SP1 was used to perform the loss estimates for DeKalb County, Georgia. Changes made to the default Hazus-MH inventory and the modeling parameters used to setup the hazard scenarios are described within this document.

Reported losses reflect the updated data sets. Steps, algorithms and assumptions used during the data update process are documented in the project workflow named PDM\_GA\_Workflow.doc.

### Statewide Inventory Changes

The default Hazus-MH Essential Facility inventory was updated for the entire state prior to running the hazard scenarios for DeKalb County.

Updates to the Critical Facility data used in GMIS were provided by DeKalb County in November 2021. These updates were applied by The Carl Vinson Institute of Government at the University of Georgia. Table 16 summarizes the difference between the original Hazus-MH default data and the updated data for DeKalb County.

**TABLE 16: ESSENTIAL FACILITY UPDATES**

Site Class	Feature Class	Default Replacement Cost	Default Count	Updated Replacement Cost	Updated Count
EF	Care	\$303,084,000	15	\$111,997,000	7
EF	EOC	\$880,000	1	\$17,950,000	1
EF	Fire	\$14,271,000	20	\$43,440,000	26
EF	Police	\$7,999,000	11	\$27,891,000	10
EF	School	\$542,613,000	189	\$703,055,000	159

### County Inventory Changes

The GBS records for DeKalb County were replaced with data derived from parcel and property assessment data obtained from DeKalb County. The county provided property assessment data was current as of November 2021 and the parcel data current as of November 2021.

### General Building Stock Updates

The X and Y coordinates for the center point of each parcel and assessor records were provided to The University of Georgia's Carl Vinson Institute of Government from DeKalb County. The X and Y coordinates were converted to parcel points located in the centroids of each parcel. Each parcel point was linked to an assessor record based upon matching parcel numbers. Since these points were created from the tabular assessment records, there is naturally a 100% match between the data and the geography. If there are any records that were not contained in the assessment records, they also did not create a centroid and likewise, do not generate a tax bill. The generated Building Inventory represents the approximate locations (within a parcel) of building exposure. The Building Inventory was aggregated by Census Block and imported into Hazus-MH using the Hazus-MH Comprehensive Data Management System (CDMS). Both the 2010 Census Tract and Census Block tables were updated.

Less than one percent of the CAMA values were either missing (<Null> or '0'), did not match CAMA domains or were unusable ('Unknown', 'Other', 'Pending'). These were replaced with 'best available' values. Missing Year Built values were populated from average values per Census Block. Missing Condition, Construction and Foundation values were populated with the highest-frequency CAMA values per Occupancy Class. Missing Area values were populated with the average CAMA values per Occupancy Class.

The resulting Building Inventory was used to populate the Hazus-MH General Building Stock and User Defined Facility tables. The updated General Building Stock was used to calculate flood and tornado losses. Changes to the building counts and exposure that were modeled in DeKalb County are sorted by General Occupancy in Table 1 at the beginning of this report. If replacements cost or building value were



not present for a given record in the Assessor data, replacement costs were calculated from the Building Area (sqft) multiplied by the Hazus-MH RS Means (\$/sqft) values for each Occupancy Class. Differences between the default and updated data are due to various factors. The Assessor records often do not distinguish parcels by occupancy class when the parcels are not taxable; therefore, the total number of buildings and the building replacement costs for government, religious/non-profit, and education may be underestimated.

#### User Defined Facilities

Building Inventory was used to create Hazus-MH User Defined Facility (UDF) inventory for flood modeling. Hazus-MH flood loss estimates are based upon the UDF point data. Buildings within the flood boundary were imported into Hazus-MH as User Defined Facilities and modeled as points.

**TABLE 18: USER DEFINED FACILITY EXPOSURE**

Class	Hazus-MH Feature	Counts	Exposure
BI	Building Exposure	221,753	\$138,867,869,333
Riverine UDF	Structures Inside 1% Annual Chance Riverine Flood Area	4,762	\$2,679,551,960

#### Assumptions

- Flood analysis was performed on Building Inventory. Building Inventory within the flood boundary was imported as User Defined Facilities. The point locations are parcel centroid accuracy.
- The analysis is restricted to the county boundary. Events that occur near the county boundary do not contain loss estimates from adjacent counties.
- The following attributes were defaulted or calculated:
  - First Floor Height was set from Foundation Type
  - Content Cost was calculated from Building Cost



## APPENDIX E: GEMHSA WORKSHEET #3A – INVENTORY OF ASSETS

**Note:** These worksheets are a requirement for Georgia Emergency Management Agency/Homeland Security (GEMA/HS). This information is used to determine the equivalent process for DeKalb County and its participating jurisdictions' building inventory within the affected hazard area for the spatially (flooding) and non-spatially (all-hazards) that could impact the planning area.

### GEMHSA Worksheet #3a

### Inventory of Assets

**Jurisdiction: DeKalb County**

**Hazard: All Hazards (except flooding)**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	213,813	213,813	100.000%	124,235,839,000	124,235,839,000	100.000%	764,382	764,382	100%
Commercial	6,670	6,670	100.000%	12,186,755,000	12,186,755,000	100.000%	0	0	0%
Industrial	951	951	100.000%	1,871,459,000	1,871,459,000	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non-profit	230	230	100.000%	250,159,000	250,159,000	100.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	89	89	100.000%	323,004,000	323,004,000	100.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>221,753</b>	<b>221,753</b>	<b>100.000%</b>	<b>138,867,216,000</b>	<b>138,867,216,000</b>	<b>100.000%</b>	<b>764,382</b>	<b>764,382</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect DeKalb County. The data was taken from GBS Building Exposure Updates by Occupancy Class from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this plan.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>



**GEMHSA Worksheet #3a****Inventory of Assets****Jurisdiction: City of Avondale Estates****Hazard: All Hazards (except flooding)****Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	1,495	1,495	100.000%	1,118,375,123	1,118,375,123	100.000%	3,567	3,567	100%
Commercial	74	74	100.000%	33,711,240	33,711,240	100.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>1,569</b>	<b>1,569</b>	<b>100.000%</b>	<b>1,152,086,363</b>	<b>1,152,086,363</b>	<b>100.000%</b>	<b>3,567</b>	<b>3,567</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect the City of Avondale Estates. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>



## GEMHSA Worksheet #3a

Jurisdiction: City of Brookhaven

Hazard: All Hazards (except flooding)

## Inventory of Assets

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	13,616	13,616	100.000%	13,731,481,344	13,731,481,344	100.000%	55,161	55,161	100%
Commercial	327	327	100.000%	1,984,293,540	1,984,293,540	100.000%	0	0	0%
Industrial	19	19	100.000%	32,860,630	32,860,630	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	13,962	13,962	100.000%	15,748,635,514	15,748,635,514	100.000%	55,161	55,161	100%

**\*Note:** This table represents all hazards that could affect the City of Brookhaven. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	Y	N
1. Do you know where the greatest damages may occur in your area?	Y	N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N



**GEMHSA Worksheet #3a**  
**Jurisdiction: City of Chamblee**  
**Hazard: All Hazards (except flooding)**

**Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	5,726	5,726	100.000%	3,592,454,771	3,592,454,771	100.000%	30,164	30,164	100%
Commercial	685	685	100.000%	1,020,323,120	1,020,323,120	100.000%	0	0	0%
Industrial	149	149	100.000%	168,908,930	168,908,930	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	6,560	6,560	100.000%	4,781,686,821	4,781,686,821	100.000%	30,164	30,164	100%

**\*Note:** This table represents all hazards that could affect the City of Chamblee. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>



**GEMHSA Worksheet #3a**  
**Jurisdiction: City of Clarkson**  
**Hazard: All Hazards (except flooding)**

**Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	1,160	1,160	100.000%	364,225,849	364,225,849	100.000%	14,756	14,756	100%
Commercial	0	0	0.000%	0	0	0.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>1,160</b>	<b>1,160</b>	<b>100.000%</b>	<b>364,225,849</b>	<b>364,225,849</b>	<b>100.000%</b>	<b>14,756</b>	<b>14,756</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect the City of Clarkson. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>



## GEMHSA Worksheet #3a

Jurisdiction: City of Decatur

Hazard: All Hazards (except flooding)

## Inventory of Assets

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	7,362	7,362	100.000%	8,584,234,852	8,584,234,852	100.000%	24,928	24,928	100%
Commercial	288	288	100.000%	550,474,460	550,474,460	100.000%	0	0	0%
Industrial	15	15	100.000%	3,801,220	3,801,220	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	7,665	7,665	100.000%	9,138,510,532	9,138,510,532	100.000%	24,928	24,928	100%

**\*Note:** This table represents all hazards that could affect the City of Decatur. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	Y	N
1. Do you know where the greatest damages may occur in your area?	Y	N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N





## GEMHSA Worksheet #3a

Jurisdiction: City of Doraville

Hazard: All Hazards (except flooding)

## Inventory of Assets

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	2,292	2,292	100.000%	1,145,344,710	1,145,344,710	100.000%	10,623	10,623	100%
Commercial	447	447	100.000%	577,378,570	577,378,570	100.000%	0	0	0%
Industrial	97	97	100.000%	172,759,740	172,759,740	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non-profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	2,836	2,836	100.000%	1,895,483,020	1,895,483,020	100.000%	10,623	10,623	100%

**\*Note:** This table represents all hazards that could affect the City of Doraville. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	Y	N
1. Do you know where the greatest damages may occur in your area?	Y	N
2. Do you know whether your critical facilities will be operational after a hazard event?		N
3. Is there enough data to determine which assets are subject to the greatest potential damages?	Y	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	Y	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	Y	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	Y	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		N



**GEMHSA Worksheet #3a**  
**Jurisdiction: City of Dunwoody**  
**Hazard: All Hazards (except flooding)**

**Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	12,607	12,607	100.000%	10,478,841,349	10,478,841,349	100.000%	51,683	51,683	100%
Commercial	400	400	100.000%	2,254,785,560	2,254,785,560	100.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non-profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	13,007	13,007	100.000%	12,733,626,909	12,733,626,909	100.000%	51,683	51,683	100%

**\*Note:** This table represents all hazards that could affect the City of Dunwoody. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>

**GEMHSA Worksheet #3a****Jurisdiction: City of Lithonia****Hazard: All Hazards (except flooding)****Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	24,452	24,452	100.000%	22,811,371,129	22,811,371,129	100.000%	2,662	2,662	100%
Commercial	0	0	0.000%	0	0	0.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	2	2	100.000%	5,764,000	5,764,000	100.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>24,454</b>	<b>24,454</b>	<b>100.000%</b>	<b>22,817,135,129</b>	<b>22,817,135,129</b>	<b>100.000%</b>	<b>2,662</b>	<b>2,662</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect the City of Lithonia. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>



**GEMHSA Worksheet #3a**  
**Jurisdiction: City of Pine Lake**  
**Hazard: All Hazards (except flooding)**

**Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	343	343	100.000%	153,868,426	153,868,426	100.000%	752	752	100%
Commercial	0	0	0.000%	0	0	0.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	343	343	100.000%	153,868,426	153,868,426	100.000%	752	752	100%

**\*Note:** This table represents all hazards that could affect the City of Pine Lake. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>

**GEMHSA Worksheet #3a****Inventory of Assets****Jurisdiction: City of Stone Mountain****Hazard: All Hazards (except flooding)**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	1,978	1,978	100.000%	571,337,319	571,337,319	100.000%	6,703	6,703	100%
Commercial	0	0	0.000%	0	0	0.000%	0	0	0%
Industrial	0	0	0.000%	0	0	0.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non-profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>1,978</b>	<b>1,978</b>	<b>100.000%</b>	<b>571,337,319</b>	<b>571,337,319</b>	<b>100.000%</b>	<b>6,703</b>	<b>6,703</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect the City of Stone Mountain. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>





**GEMHSA Worksheet #3a**  
**Jurisdiction: City of Stonecrest**  
**Hazard: All Hazards (except flooding)**

**Inventory of Assets**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	16,683	16,683	100.000%	6,635,461,086	6,635,461,086	100.000%	59,194	59,194	100%
Commercial	453	453	100.000%	877,969,346	877,969,346	100.000%	0	0	0%
Industrial	120	120	100.000%	231,795,755	231,795,755	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non-profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
Total	17,256	17,256	100.000%	7,745,226,187	7,745,226,187	100.000%	59,194	59,194	100%

**\*Note:** This table represents all hazards that could affect the City of Stonecrest. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>

**GEMHSA Worksheet #3a****Inventory of Assets****Jurisdiction: City of Tucker****Hazard: All Hazards (except flooding)**

**Task A. Determine the proportion of buildings, the value of buildings, and the population in your community or state that are in hazard areas.**

Type of Structure (Occupancy Class)	Number of Structures			Value of Structures			Number of People		
	# in Community of State	# in Hazard Area	% in Hazard Area	\$ in Community or State	\$ in Hazard Area	% in Hazard Area	# in Community or State	# in Hazard Area	% in Hazard Area
Residential	11,302	11,302	100.000%	6,939,302,119	6,939,302,119	100.000%	37,005	37,005	100%
Commercial	756	756	100.000%	1,363,291,350	1,363,291,350	100.000%	0	0	0%
Industrial	216	216	100.000%	523,171,040	523,171,040	100.000%	0	0	0%
Agricultural	0	0	0.000%	0	0	0.000%	0	0	0%
Religious/ Non- profit	0	0	0.000%	0	0	0.000%	0	0	0%
Government	0	0	0.000%	0	0	0.000%	0	0	0%
Education	0	0	0.000%	0	0	0.000%	0	0	0%
Utilities	0	0	0.000%	0	0	0.000%	0	0	0%
<b>Total</b>	<b>12,274</b>	<b>12,274</b>	<b>100.000%</b>	<b>8,825,764,509</b>	<b>8,825,764,509</b>	<b>100.000%</b>	<b>37,005</b>	<b>37,005</b>	<b>100%</b>

**\*Note:** This table represents all hazards that could affect the City of Tucker. The data was taken from DeKalb County Riverine 1% Building Losses – Total Building and Total Building Exposure value from the Hazard Risk Analyses Supplement to the DeKalb County Joint Hazard Mitigation Plan (HAZUS®) and Community Demographics within this 2022 DeKalb County MJHMP update.

**Task B. Determine whether (and where) you want to collect additional inventory data.**

	<b>Y</b>	<b>N</b>
1. Do you know where the greatest damages may occur in your area?	<b>Y</b>	<b>N</b>
2. Do you know whether your critical facilities will be operational after a hazard event?		<b>N</b>
3. Is there enough data to determine which assets are subject to the greatest potential damages?	<b>Y</b>	
4. Is there enough data to determine whether significant elements of the community are vulnerable to potential hazards?	<b>Y</b>	
5. Is there enough data to determine whether certain areas of historic, environmental, political, or cultural significance are vulnerable to potential hazards?	<b>Y</b>	
6. Is there concern about a particular hazard because of its severity, repetitiveness, or likelihood of occurrence?	<b>Y</b>	
7. Is additional data needed to justify the expenditure of community or state funds for mitigation initiatives?		<b>N</b>

**APPENDIX F: PLAN ADOPTION RESOLUTIONS**

**APPENDIX G: STATE OF GEORGIA APPROVAL LETTER**

**APPENDIX H: FEMA APPROVAL LETTER**



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## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Courtney Smith, Community Development Director  
**CC:** Tami Hanlin, City Manager  
**Date:** October 2, 2023  
**RE:** Memo for Lawrenceville Highway Rezoning

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### **Description for on the Agenda:**

First read and public hearing of an Ordinance to amend the Official Zoning Map of the City of Tucker relating to properties along Lawrenceville Highway, Steel Drive, Woodbriar Circle, Weston Lane, Sheridan Street, Lexington Road, Stockton Drive and Brockett Road.

### **Issue:**

The Lawrenceville Highway corridor, between Brockett and Cooledge Roads, was identified for a new special zoning district in order to better align zoning regulations with the community's vision for the corridor. The corridor has a number of challenges including it being a heavily trafficked, 5-lane state highway with a high density of curb cuts. It also runs parallel to an active rail line and there are multiple narrow parcels along the corridor that limit redevelopment options.

Rezoning this area to the Lawrenceville Highway special zoning districts would better align the area with surrounding zoning districts and would allow it to be consistent with the Light Industrial and Commercial Redevelopment Corridor Character Areas. The zoning districts included in this rezoning are LH-1 (Lawrenceville Highway Residential), LH-2 (Lawrenceville Highway Neighborhood), LH-3 (Lawrenceville Highway Core), and LH-4 (Lawrenceville Highway Industry).

Staff finds that the proposed rezonings to LH-1, LH-2, LH-3, and LH-4, aligns with the surrounding zoning districts, abutting residential uses, and the Tucker Tomorrow Comprehensive Plan.

### **Recommendation:**

Staff recommends approval of the rezoning.

Planning Commission recommends approval of the rezoning.

### **Background:**

The first step in this process was to create a new zoning code that establishes the LH zoning districts. This code was drafted by Pond & Company after extensive research and community engagement and was adopted by the City Council on September 11, 2023 (02023-08-13). The second step is the city-initiated rezoning of the 224 properties within the study area. Pond & Company, along with Staff, have created a proposed map based on zoning standards, as well as input from property owners and abutting neighbors. An excel spreadsheet has also been created which lists each property, the existing zoning, and the proposed zoning.

**Summary:**

The land use petition to rezone 224 parcels along Lawrenceville Highway between Brocket and Cooledge Roads is consistent with the recommendations of the Comprehensive Plan and would be compatible with the surrounding neighborhoods.



**AN ORDINANCE TO AMEND THE OFFICIAL ZONING MAP OF THE CITY OF  
TUCKER RELATING TO PROPERTIES ALONG LAWRENCEVILLE HIGHWAY,  
STEEL DRIVE, WOODBRIAR CIRCLE, WESTON LANE, SHERIDAN STREET,  
LEXINGTON ROAD, STOCKTON DRIVE AND BROCKETT ROAD.**

**WHEREAS:** Notice to the public regarding said rezoning have been duly published in The Champion, the Official News Organ of Tucker; and

**WHEREAS:** A Public Hearing was held by the Mayor and City Council of Tucker on October 10, 2023 and November 13, 2023;

**WHEREAS:** The Mayor and City Council is the governing authority for the City of Tucker;

**WHEREAS:** The Mayor and City Council has reviewed the rezoning request based on the criteria found in Section 46-1560 of the Zoning Ordinance of the City of Tucker;

**NOW THEREFORE,** the Mayor and City Council of the City of Tucker while in Regular Session on November 13, 2023 hereby ordains and approves rezoning RZ-23-0002, as listed in “O2023-10-20 Exhibit A,” and shown in the attached map titled “Proposed Map with Requested Changes City Council First Read October 10, 2023” with no conditions.

**SO EFFECTIVE** this 13<sup>th</sup> day of November 2023.

Approved by:

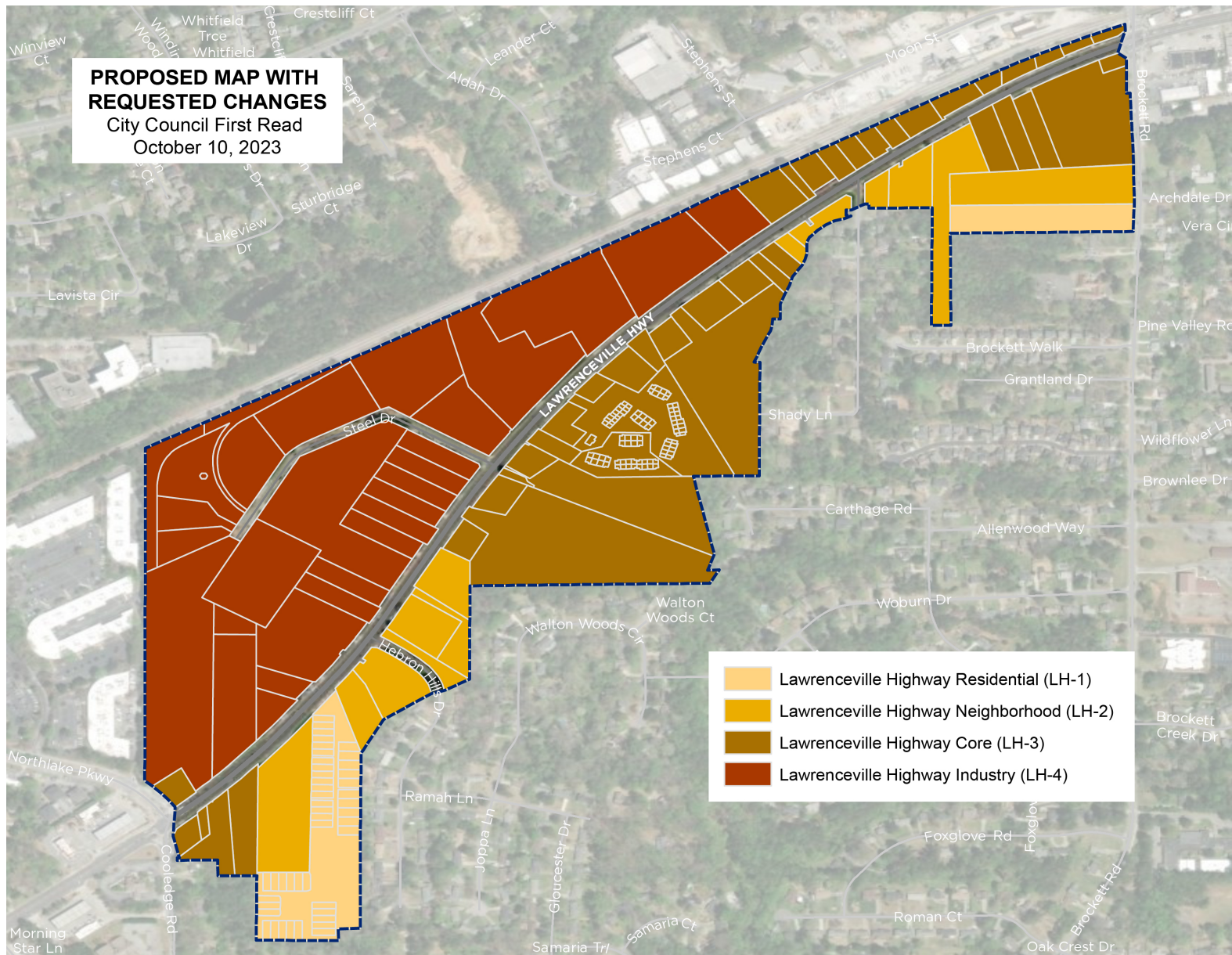
\_\_\_\_\_  
Frank Auman, Mayor

Attest:

\_\_\_\_\_  
Bonnie Warne, City Clerk

SEAL

City Council First Read  
October 10, 2023



O2023-10-20 Exhibit A

PARCEL ID	ACREAGE	ADDRESS	STREET NAME	UNIT	EXISTING ZONING	ZONING CONDITIONS	PROPOSED ZONING
18 212 06 005	2.86803888	2140 BROCKETT ROAD			R-75		LH1
18 212 06 006	3.72065096	2154 BROCKETT ROAD			R-75		LH2
18 188 04 047	0.55539264	3567 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 188 04 048	0.6961763	3549 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 04 010	0.35393659	3766 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 017	0.87289941	3540 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 07 009	0.90586177	3671 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 188 01 014	0.87425126	3516 LAWRENCEVILLE HIGHWAY			M		LH4
18 187 01 092	0.35058827	3613 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 04 002	0.29167814	3820 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 05 066	4.20711129	3431 LAWRENCEVILLE HIGHWAY			RSM	CZ-15-20067, CZ-07-13322	LH1
18 212 07 007	0.40956559	3701 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 04 017	4.00252649	3658 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 04 011	4.53476378	3555 LAWRENCEVILLE HIGHWAY			MR-2		LH3
18 212 06 017	1.27474916	3781 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 188 01 010	0.90163499	3482 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 01 028	0.48852356	3378 LAWRENCEVILLE HIGHWAY			M		LH3
18 188 04 018	0.61809904	3605 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 07 012	0.35445453	3691 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 07 010	0.71240878	3687 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 188 04 007	1.44222684	3489 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 212 04 011	0.39392863	3756 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 033	3.07732144	3400 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 06 013	0.8964525	3815 LAWRENCEVILLE HIGHWAY			C-2	Z-76027	LH3
18 212 04 003	0.18162245	3850 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 212 07 011	0.28960546	3709 LAWRENCEVILLE HIGHWAY			C-2		LH2
18 188 01 011	0.87868782	3492 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 01 005	0.63514791	3430 LAWRENCEVILLE HIGHWAY			C-2	CZ-89066, Z-76112	LH4
18 187 01 202	0.81941924	3619 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 04 013	0.53991663	3744 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 016	0.87160283	3532 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 04 023	0.59683731	3477 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 188 01 045	4.85033953	3602 LAWRENCEVILLE HIGHWAY			C-2	CZ-91038	LH4
18 212 04 007	0.1965742	3836 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 212 06 012	0.93613581	3823 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 05 014	1.48119918	3393 LAWRENCEVILLE HIGHWAY			C-2	Z-76114	LH3
18 188 05 013	0.39639318	3367 LAWRENCEVILLE HIGHWAY			C-2	CZ-77013	LH3
18 188 04 049	0.57825325	3531 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 06 009	4.62286151	3853 LAWRENCEVILLE HIGHWAY			C-1	S-14-19265, CZ-77056	LH3
18 187 01 001	0.41245636	3627 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 04 004	0.17291655	3862 LAWRENCEVILLE HIGHWAY			DT-2	RZ-19-0002	LH3
18 212 04 016	1.67601968	3702 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 04 017	0.47708478	3597 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 212 06 029	2.72593095	3797 LAWRENCEVILLE HIGHWAY			MZ	Z-73076	LH2
18 188 05 016	0.15767465	3377 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 187 01 198	6.56041263	3665 LAWRENCEVILLE HIGHWAY			MR-2		LH3
18 212 04 008	0.54015672	3782 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 05 003	3.92867803	3417 LAWRENCEVILLE HIGHWAY			C-2	CZ-93066	LH2
18 188 05 067	1.11807733	3443 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 188 04 020	0.85148967	3495 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 188 01 006	0.62058698	3440 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 04 015	1.19490871	3734 LAWRENCEVILLE HIGHWAY			C-2	Z-83191	LH3
18 188 01 037	0.50831652	3446 LAWRENCEVILLE HIGHWAY			M		LH4
18 187 01 002	0.56879468	3641 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 188 04 009	9.08626155	3535 LAWRENCEVILLE HIGHWAY			MR-2		LH3
18 212 04 012	0.42741397	3750 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 212 04 014	0.23447808	3738 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 025	8.84241708	3386 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 01 040	1.24809888	3394 LAWRENCEVILLE HIGHWAY	REAR		M		LH4
18 188 01 015	0.91878871	3524 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 01 019	0.87993036	3556 LAWRENCEVILLE HIGHWAY			M		LH4
18 188 05 022	1.74526676	3469 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 212 06 019	0.42100824	3761 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 188 05 002	1.20081142	3383 LAWRENCEVILLE HIGHWAY			C-1		LH3
18 211 01 030	5.23231589	3630 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 04 005	0.51627024	3800 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 039	2.18413911	3566 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 04 001	0.23237301	3816 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 212 06 010	0.20082746	3863 LAWRENCEVILLE HIGHWAY			DT-2	RZ-19-0002	LH3
18 188 04 008	1.36337178	3507 LAWRENCEVILLE HIGHWAY			C-1		LH2
18 212 04 009	0.33278859	3776 LAWRENCEVILLE HIGHWAY			C-2		LH3
18 188 01 018	0.87874701	3548 LAWRENCEVILLE HIGHWAY			M		LH4
18 212 07 008	0.59992733	3717 LAWRENCEVILLE HIGHWAY			C-2	CZ-91032	LH2

18 188 04 046	0.128302	3553 LAWRENCEVILLE HIGHWAY		C-1		LH3
18 188 01 009	3.59077077	3476 LAWRENCEVILLE HIGHWAY		M		LH4
18 212 06 014	1.00122705	3807 LAWRENCEVILLE HIGHWAY		C-2	Z-77004	LH3
18 188 05 094	0.08863655	3707 LEXINGTON ROAD		RSM		LH1
18 188 05 095	0.08760886	3709 LEXINGTON ROAD		RSM		LH1
18 188 05 096	0.08711042	3711 LEXINGTON ROAD		RSM		LH1
18 188 05 098	0.08972469	3715 LEXINGTON ROAD		RSM		LH1
18 188 05 097	0.08766809	3713 LEXINGTON ROAD		RSM		LH1
18 188 05 085	0.08228907	3718 SHERIDAN STREET		RSM		LH1
18 188 05 087	0.08362149	3714 SHERIDAN STREET		RSM		LH1
18 188 05 090	0.08421085	3708 SHERIDAN STREET		RSM		LH1
18 188 05 086	0.08462695	3716 SHERIDAN STREET		RSM		LH1
18 188 05 089	0.08419566	3710 SHERIDAN STREET		RSM		LH1
18 188 05 088	0.08376759	3712 SHERIDAN STREET		RSM		LH1
18 188 01 032	0.01949268	2014 STEEL DRIVE		M		LH4
18 188 01 036	1.06524153	2000 STEEL DRIVE		M		LH4
18 188 01 035	0.94006217	1996 STEEL DRIVE		M		LH4
18 188 01 029	2.18819392	2018 STEEL DRIVE		M		LH4
18 188 01 021	3.15436401	2040 STEEL DRIVE		M		LH4
18 188 01 038	3.71703047	2070 STEEL DRIVE		M		LH4
18 188 01 031	2.12277141	2008 STEEL DRIVE		M		LH4
18 188 01 041	1.0797722	2016 STEEL DRIVE		M		LH4
18 188 01 024	6.77112432	2043 STEEL DRIVE		M-2	CZ-11-17339, S-11-17340	LH4
18 188 01 048	3.81349591	1995 STEEL DRIVE		M-2		LH4
18 188 05 091	0.08884981	1864 STOCKTON DRIVE		RSM		LH1
18 188 05 092	0.0895342	1862 STOCKTON DRIVE		RSM		LH1
18 188 05 093	0.08829279	1860 STOCKTON DRIVE		RSM		LH1
18 188 05 113	0.10369186	1901 WESTON LANE		RSM		LH1
18 188 05 070	0.08337474	1908 WESTON LANE		RSM		LH1
18 188 05 071	0.08127831	1906 WESTON LANE		RSM		LH1
18 188 05 072	0.08288522	1904 WESTON LANE		RSM		LH1
18 188 05 073	0.08250434	1902 WESTON LANE		RSM		LH1
18 188 05 074	0.08305007	1900 WESTON LANE		RSM		LH1
18 188 05 075	0.08334397	1896 WESTON LANE		RSM		LH1
18 188 05 076	0.08436627	1894 WESTON LANE		RSM		LH1
18 188 05 103	0.08941158	1859 WESTON LANE		RSM		LH1
18 188 05 109	0.11880577	1893 WESTON LANE		RSM		LH1
18 188 05 111	0.11770633	1897 WESTON LANE		RSM		LH1
18 188 05 112	0.11783089	1899 WESTON LANE		RSM		LH1
18 188 05 077	0.08345152	1892 WESTON LANE		RSM		LH1
18 188 05 079	0.08408277	1888 WESTON LANE		RSM		LH1
18 188 05 080	0.08403372	1886 WESTON LANE		RSM		LH1
18 188 05 081	0.08421973	1882 WESTON LANE		RSM		LH1
18 188 05 083	0.08567676	1878 WESTON LANE		RSM		LH1
18 188 05 101	0.08919516	1855 WESTON LANE		RSM		LH1
18 188 05 104	0.11515154	1881 WESTON LANE		RSM		LH1
18 188 05 105	0.1167867	1883 WESTON LANE		RSM		LH1
18 188 05 106	0.11548702	1885 WESTON LANE		RSM		LH1
18 188 05 082	0.08376114	1880 WESTON LANE		RSM		LH1
18 188 05 100	0.08845629	1853 WESTON LANE		RSM		LH1
18 188 05 084	0.08321486	1876 WESTON LANE		RSM		LH1
18 188 05 108	0.11773247	1889 WESTON LANE		RSM		LH1
18 188 05 102	0.08858482	1857 WESTON LANE		RSM		LH1
18 188 05 110	0.11553635	1895 WESTON LANE		RSM		LH1
18 188 05 107	0.11586482	1887 WESTON LANE		RSM		LH1
18 188 05 078	0.08331617	1890 WESTON LANE		RSM		LH1
18 188 05 099	0.0887666	1851 WESTON LANE		RSM		LH1
18 188 05 069	0.08049966	1910 WESTON LANE		RSM		LH1
18 187 07 021	0.01436383	3603 WOODBRIAR CIRCLE	E	MR-2		LH3
18 187 07 078	0.01242683	3607 WOODBRIAR CIRCLE	J	MR-2		LH3
18 187 07 012	0.01583978	3601 WOODBRIAR CIRCLE	D	MR-2		LH3
18 187 07 086	0.01762878	3609 WOODBRIAR CIRCLE	B	MR-2		LH3
18 187 07 014	0.02122189	3601 WOODBRIAR CIRCLE	F	MR-2		LH3
18 187 07 016	0.01572901	3601 WOODBRIAR CIRCLE	H	MR-2		LH3
18 187 07 053	0.01910416	3599 WOODBRIAR CIRCLE	C	MR-2		LH3
18 187 07 066	0.01608055	3605 WOODBRIAR CIRCLE	H	MR-2		LH3
18 187 07 070	0.01242656	3607 WOODBRIAR CIRCLE	B	MR-2		LH3
18 187 07 081	0.01721052	3607 WOODBRIAR CIRCLE	M	MR-2		LH3
18 187 07 047	0.00824096	3595 WOODBRIAR CIRCLE	M	MR-2		LH3
18 187 07 063	0.01206189	3605 WOODBRIAR CIRCLE	E	MR-2		LH3
18 187 07 007	0.0195634	3597 WOODBRIAR CIRCLE	G	MR-2		LH3
18 187 07 039	0.00944187	3595 WOODBRIAR CIRCLE	E	MR-2		LH3
18 187 07 045	0.01380062	3595 WOODBRIAR CIRCLE	K	MR-2		LH3
18 187 07 052	0.01908637	3599 WOODBRIAR CIRCLE	B	MR-2		LH3
18 187 07 059	0.01087551	3605 WOODBRIAR CIRCLE	A	MR-2		LH3

18 187 07 008	0.01563584	3597 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 055	0.01622836	3599 WOODBRIAR CIRCLE	E	MR-2	LH3
18 187 07 062	0.01543618	3605 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 072	0.01242642	3607 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 074	0.01242704	3607 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 087	0.01758474	3609 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 089	0.01178817	3609 WOODBRIAR CIRCLE	E	MR-2	LH3
18 187 07 092	0.0109774	3609 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 004	0.01518858	3597 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 013	0.01634745	3601 WOODBRIAR CIRCLE	E	MR-2	LH3
18 187 07 028	0.01468112	3603 WOODBRIAR CIRCLE	L	MR-2	LH3
18 187 07 093	0.03764226	3593 WOODBRIAR CIRCLE		MR-2	LH3
18 187 07 085	0.01159541	3609 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 035	0.00997838	3595 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 076	0.00658009	3607 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 080	0.01300785	3607 WOODBRIAR CIRCLE	L	MR-2	LH3
18 187 07 049	0.00894272	3595 WOODBRIAR CIRCLE	O	MR-2	LH3
18 187 07 060	0.01553367	3605 WOODBRIAR CIRCLE	B	MR-2	LH3
18 187 07 029	0.01229491	3603 WOODBRIAR CIRCLE	M	MR-2	LH3
18 187 07 058	0.01557698	3599 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 043	0.01017533	3595 WOODBRIAR CIRCLE	I	MR-2	LH3
18 187 07 067	0.01612853	3605 WOODBRIAR CIRCLE	I	MR-2	LH3
18 187 07 069	0.01242645	3607 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 082	0.01721033	3607 WOODBRIAR CIRCLE	N	MR-2	LH3
18 187 07 025	0.01411688	3603 WOODBRIAR CIRCLE	I	MR-2	LH3
18 187 07 044	0.01174231	3595 WOODBRIAR CIRCLE	J	MR-2	LH3
18 187 07 083	0.01721036	3607 WOODBRIAR CIRCLE	O	MR-2	LH3
18 187 07 065	0.01603138	3605 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 031	0.01439669	3603 WOODBRIAR CIRCLE	O	MR-2	LH3
18 187 07 019	0.0137886	3603 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 048	0.01107259	3595 WOODBRIAR CIRCLE	N	MR-2	LH3
18 187 07 010	0.01960156	3601 WOODBRIAR CIRCLE	B	MR-2	LH3
18 187 07 011	0.01944793	3601 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 022	0.01554719	3603 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 023	0.0152576	3603 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 075	0.01242645	3607 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 079	0.01242656	3607 WOODBRIAR CIRCLE	K	MR-2	LH3
18 187 07 006	0.01991583	3597 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 032	0.01226681	3603 WOODBRIAR CIRCLE	P	MR-2	LH3
18 187 07 064	0.01080702	3605 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 036	0.01147107	3595 WOODBRIAR CIRCLE	B	MR-2	LH3
18 187 07 018	0.01407504	3603 WOODBRIAR CIRCLE	B	MR-2	LH3
18 187 07 001	0.01579099	3597 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 054	0.01552898	3599 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 050	0.01103142	3595 WOODBRIAR CIRCLE	P	MR-2	LH3
18 187 07 034	4.03866397	3611 WOODBRIAR CIRCLE		MR-2	LH3
18 187 07 061	0.01548462	3605 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 017	0.01266603	3603 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 026	0.01576786	3603 WOODBRIAR CIRCLE	J	MR-2	LH3
18 187 07 037	0.01286607	3595 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 009	0.01592543	3601 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 077	0.01242621	3607 WOODBRIAR CIRCLE	I	MR-2	LH3
18 187 07 030	0.01411348	3603 WOODBRIAR CIRCLE	N	MR-2	LH3
18 187 07 015	0.0213742	3601 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 033	1.25154502	3591 WOODBRIAR CIRCLE		MR-2	LH3
18 187 07 040	0.01473384	3595 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 090	0.01661354	3609 WOODBRIAR CIRCLE	F	MR-2	LH3
18 187 07 057	0.02011726	3599 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 084	0.00974054	3607 WOODBRIAR CIRCLE	P	MR-2	LH3
18 187 07 005	0.0153998	3597 WOODBRIAR CIRCLE	E	MR-2	LH3
18 187 07 091	0.01665693	3609 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 051	0.01613046	3599 WOODBRIAR CIRCLE	A	MR-2	LH3
18 187 07 073	0.01242635	3607 WOODBRIAR CIRCLE	E	MR-2	LH3
18 187 07 042	0.01125249	3595 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 027	0.01605442	3603 WOODBRIAR CIRCLE	K	MR-2	LH3
18 187 07 088	0.01105275	3609 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 002	0.02000333	3597 WOODBRIAR CIRCLE	B	MR-2	LH3
18 187 07 071	0.01242652	3607 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 038	0.01262648	3595 WOODBRIAR CIRCLE	D	MR-2	LH3
18 187 07 003	0.02035576	3597 WOODBRIAR CIRCLE	C	MR-2	LH3
18 187 07 024	0.01301049	3603 WOODBRIAR CIRCLE	H	MR-2	LH3
18 187 07 068	0.01188979	3605 WOODBRIAR CIRCLE	J	MR-2	LH3
18 187 07 041	0.01150147	3595 WOODBRIAR CIRCLE	G	MR-2	LH3
18 187 07 046	0.01127515	3595 WOODBRIAR CIRCLE	L	MR-2	LH3
18 187 07 020	0.01193764	3603 WOODBRIAR CIRCLE	D	MR-2	LH3







**Land Use Petition:** RZ-23-0002

**Date of Staff Recommendation Preparation:** September 14, 2023

**Planning Commission:** September 21, 2023

**Mayor and City Council, 1<sup>st</sup> Read:** October 10, 2023

**Mayor and City Council, 2<sup>nd</sup> Read:** November 11, 2023

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<b>PROJECT LOCATION:</b>	Properties between Brockett and Cooledge Roads on Lawrenceville Highway, Steel Drive, Woodbridge Circle, Weston Lane, Sheridan Street, Lexington Road, Stockton Drive and Brockett Road.
<b>APPLICATION NUMBER</b>	RZ-23-0002
<b>DISTRICT/LANDLOT(S):</b>	Land District 18/Land Lots 187, 188, 211, 212
<b>ACREAGE:</b>	151 +/- acres
<b>EXISTING ZONING</b>	C-1 (Local Commercial), C-2 (General Commercial), DT-2 (Downtown, Corridor Zone), M (Light Industrial), M-2 (Heavy Industrial), MR-2 (Medium Density Residential – 2), MZ (Multiple Zoning), R-75 (Residential Medium Lot – 75), R-85 (Residential Medium Lot – 85), and RSM (Small Lot Residential Mix)
<b>PROPOSED ZONING</b>	LH-1 (Lawrenceville Highway Residential), LH-2 (Lawrenceville Highway Neighborhood), LH-3 (Lawrenceville Highway Core), and LH-4 (Lawrenceville Highway Industry)
<b>EXISTING LAND USE</b>	Commercial Redevelopment Corridor, Light Industrial
<b>FUTURE LAND USE MAP DESIGNATION:</b>	Commercial Redevelopment Corridor, Light Industrial
<b>OVERLAY DISTRICT:</b>	N/A
<b>APPLICANT:</b>	City of Tucker
<b>OWNER:</b>	Multiple – 224 parcels.
<b>PROPOSED DEVELOPMENT:</b>	None
<b>STAFF RECOMMENDATION:</b>	<b>Approval</b>

## Project Data and Background

The City of Tucker strives to follow the goals and policies of the Tucker Tomorrow Comprehensive Plan, which includes bolstering the economic base, improving transportation connections, and preserving and improving neighborhoods. This involves enhancing zoning to preserve existing neighborhoods; guiding future development to the most appropriate places; and implementing other measures to enhance neighborhoods such as improving external and internal connections.

In the City of Tucker's Zoning Ordinance Article 7 (*Administration*), Division 3 outlines Zoning and Comprehensive Plan Amendments and Procedures. Section 46-1556 states that in addition to property owners of a subject property having the opportunity to initiate rezoning, a proposed amendment to the text of this chapter, the official zoning map, or the comprehensive plan may be introduced by the community development director. City initiated rezoning can occur for various reasons including resolving discrepancies between zoning districts and the comprehensive plan character areas, changing conditions, or the implementation of new special zoning districts.

The Lawrenceville Highway corridor, between Brockett and Cooledge Roads, was identified for a new special zoning district in order to better align zoning regulations with the community's vision for the corridor. The corridor has a number of challenges including it being a heavily trafficked, 5-lane state highway with a high density of curb cuts. It also runs parallel to an active rail line and there are multiple narrow parcels along the corridor that limit redevelopment options.

The first step in the process was to create a new code that establishes the LH special zoning districts and sets regulations for permitted uses, dimensional requirements, site design, building form and design, and other code provisions. This code was drafted by Pond and Company after extensive community engagement and research and was adopted by the City Council on September 11, 2023 (O2023-08-13). The new special zoning districts includes four tiers:

LH-1 (Lawrenceville Highway Residential). The intent of the LH-1 district is to preserve existing residential character while allowing a wider variety of housing types for new development.

LH-2 (Lawrenceville Highway Neighborhood). The intent of the LH-2 district is to create a human-scale built environment that includes a variety of housing types, including cottage homes, townhomes, two-family developments and three-family developments. This tier also permits neighborhood-scale commercial uses that serve the existing and future residents. In this tier, consideration should be given to those more intense uses and how they interact with the existing single-family homes.

LH-3 (Lawrenceville Highway Core). The intent of the LH-3 district is to allow high density housing options and innovative uses that may be compatible with adaptive reuse. Mixed use development is encouraged where Lawrenceville Highway intersects with Brockett Road to the east and Cooledge Road to the west.

LH-4 (Industry). The intent of the LH-4 district is to preserve the light industrial uses that serve as economic assets to the community, as well as those services and uses that have been historically located along Lawrenceville Highway.

The second step in the process is the city-initiated rezoning of the 224 properties within the study area. Pond and Company, along with Staff, have created a proposed map based off zoning standards, as well as input from property owners and abutting neighbors. An excel sheet has also been created with lists each property, their existing zoning, and their proposed zoning.

A moratorium (R2023-02-04) was put into effect on February 27, 2023, so that the city could study and draft the proposed zoning amendments. The moratorium was scheduled to expire on September 26, 2023, but was renewed on September 11, 2023 (R2023-09-18), to allow ample review and public engagement for the rezoning portion of the project. The extension will expire on November 28, 2023, or until it is repealed, whichever occurs first.

Community engagement throughout this process has included the following:

- Dedicated city website; social media posts
- April 18, 2023 Community Meeting (code related)
  - Letters sent to all property owners and tenants within the study area
- April 18, 2023 to May 2, 2023 Online Survey
- April 24, 2023 City Council Work Session
- June 26, 2023 City Council Work Session
- August 30, 2023 Neighborhood Meeting (rezoning related)
  - Letters send to all property owners within the study area

Additionally, 164 letters were mailed to residential property owners within 500' of the south side of Lawrenceville Highway regarding the public hearing process for the city-initiated rezoning.

### **CHARACTER AREAS (Future Land Use)**

The subject parcels are in the Commercial Redevelopment Corridor and Light Industrial Character Areas on the Future Land Use Map. Primary Land Uses in the Commercial Redevelopment Corridor Character Area include retail, service commercial, office, townhomes, and mixed-use commercial with ancillary residential or office uses. Primary Land Uses in the Light Industrial Character Area include light industrial uses, manufacturing, warehouse/distribution, wholesale/trade, automotive uses, and accessory commercial uses. Development strategies for both character areas include:

- Enhance the mix of uses and the overall visual quality of the corridor.
- Upgrading the appearance of existing older commercial buildings with façade improvements, new architectural elements or awnings.
- Providing pedestrian and bicycling amenities, including sidewalks and crosswalks.
- Adding landscaping, implementing enhanced signage standards and other appearance enhancements, such as trees in parking lots to provide shade and help reduce storm water runoff.
- Supporting the redevelopment or establishment of new compatible commercial land uses within these character areas so that they grow as both local and regional generators of jobs.
- Installing landscaping and other design measures to soften or shield views of buildings and parking lots and loading docks.

The Commercial Redevelopment Corridor and Light Industrial Character Areas align with the 'Improve Transportation Connections', 'Preserve and Improve Neighborhoods', and 'Bolster Economic Base' goals of the comprehensive plan.

## Rezoning (RZ-23-0002)

Criteria (standards and factors) for rezoning decisions are provided in Section 46-1560 of the City of Tucker Zoning Ordinance. The applicant is required to address these criteria (see application); below are the staff's findings which are independent of the applicant's responses to these criteria.

**1. Whether the zoning proposal is in conformity with the policy and intent of the comprehensive plan.**

The proposed zoning classification meets the policy and intent of the Tucker Tomorrow comprehensive plan. Rezoning this section of Lawrenceville Highway to LH-1 (Lawrenceville Highway Residential), LH-2 (Lawrenceville Highway Neighborhood), LH-3 (Lawrenceville Highway Core), and LH-4 (Lawrenceville Highway Industry) would align the properties with surrounding zoning districts and would allow them to be consistent with the Commercial Redevelopment Corridor and Light Industrial Character Areas. It would also meet the goals of improving transportation connections, bolstering the economic base, and preserving and improving neighborhoods.

**2. Whether the zoning proposal will permit a use that is suitable in view of the use and development of adjacent and nearby property or properties.**

The proposed rezoning and new special zoning districts will allow more appropriate uses on the south side where the parcels abut single-family detached homes. It will also allow for more opportunities for adaptive reuse and assemblages, which will allow more cohesive redevelopment.

**3. Whether the property to be affected by the zoning proposal has a reasonable economic use as currently zoned.**

The subject properties have reasonable economic uses under the existing zoning designations. Staff believes that rezoning the properties will allow for the highest and best use of the properties and would improve the neighborhood as a whole and will allow new uses and building types along the corridor as parcels are redeveloped. The new zoning districts will preserve uses along the corridor that are beneficial to the community.

**4. Whether the zoning proposal will adversely affect the existing use or usability of adjacent or nearby property or properties.**



The proposed zoning will mitigate the impact of new development on the single-family residential parcels that abut the new zoning district. Existing uses will be allowed to remain under the new zoning classifications per Article VII Nonconformities.

**5. Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the zoning proposal.**

The Tucker Tomorrow Comprehensive Plan, as well as other plans and studies that have evaluated the area, gives supporting grounds for the approval of the city-initiated rezoning. The City of Tucker's initiative to try and improve aesthetics and promote compatible future redevelopment along the Lawrenceville Highway corridor provides additional reasons to approve the proposal.

**6. Whether the zoning proposal will adversely affect historic buildings, sites, districts, or archaeological resources.**

There are no known historic districts or archaeological resources on the subject properties.

**7. Whether the zoning proposal will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.**

The proposed zoning classifications will not result in excessive or burdensome use of existing streets, transportation facilities, utilizes, or schools as no development is proposed.

**8. Whether the zoning proposal adversely impacts the environment or surrounding natural resources.**

The proposed zoning request will not adversely impact the environment or surrounding natural resources as no development is proposed.

### **CONCLUSION**

Staff finds that the proposed rezonings to LH-1, LH-2, LH-3, and LH-4, aligns with the surrounding zoning districts, abutting residential uses, and the Tucker Tomorrow Comprehensive Plan.

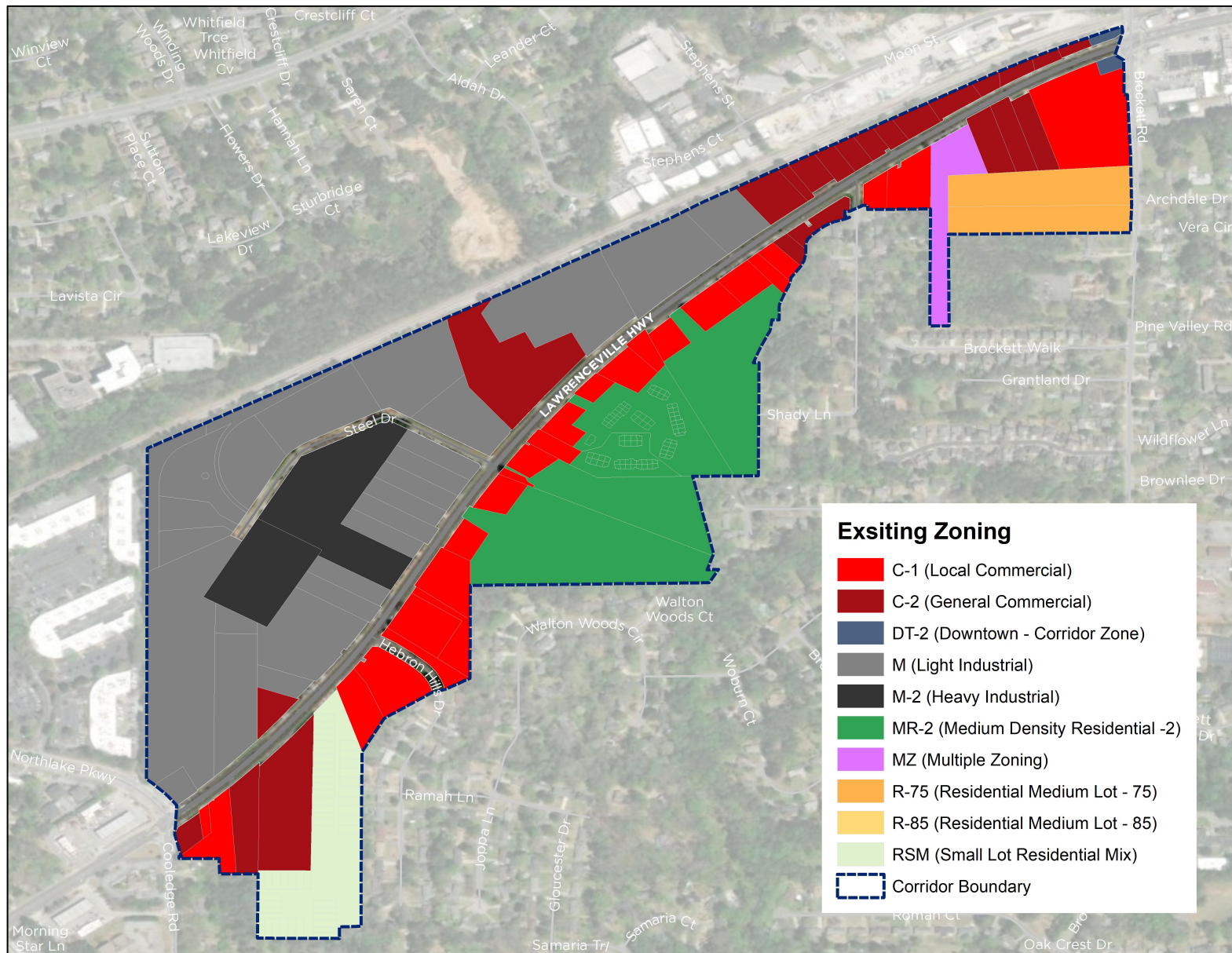
Therefore, Staff recommends **APPROVAL** of the city-initiated rezoning.

### **Staff Recommendation**

Based upon the findings and conclusions herein, Staff recommends **APPROVAL** of Land Use Petition **RZ-23-0002**, per the attached exhibit which lists property addresses, existing zoning classifications, and proposed zoning classifications.

### **Planning Commission Recommendation**

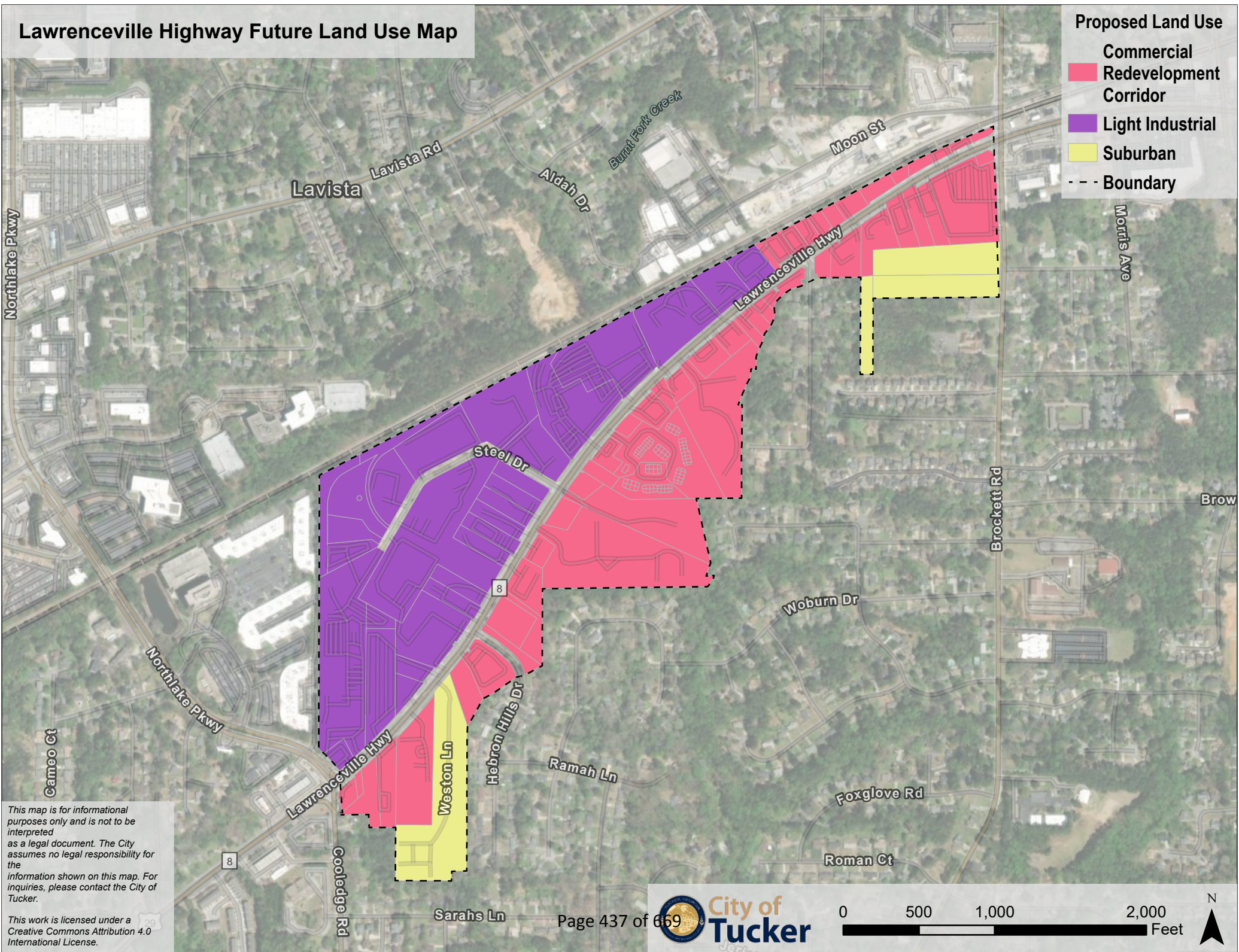
Based upon the findings and conclusions herein, at its September 21, 2023 public hearing, the Planning Commission recommends **APPROVAL** of **RZ-23-0002** as presented.





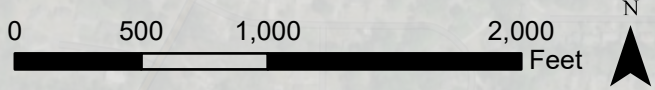
Lawrenceville Highway Future Land Use Map

- Proposed Land Use
- Commercial
  - Redevelopment Corridor
  - Light Industrial
  - Suburban
  - - - Boundary



This map is for informational purposes only and is not to be interpreted as a legal document. The City assumes no legal responsibility for the information shown on this map. For inquiries, please contact the City of Tucker.

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## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Courtney Smith, Community Development Director  
**CC:** Tami Hanlin, City Manager  
**Date:** October 18, 2023  
**RE:** Memo for TA-23-0006

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### **Description for on the Agenda:**

First Read and Public Hearing for consideration of amendments to the City of Tucker City Code, Chapter 46, including changes to adult entertainment establishment regulations.

### **Issue:**

Adult entertainment establishments are protected under the First Amendment of the Constitution of the United States and therefore, the zoning ordinance must allow the use. However, the city recognizes there are various adverse secondary effects of sexually oriented businesses that warrant supplemental use regulations. The Mayor & City Council previously adopted Resolution No. 2016-07-13 to accept findings of certain negative secondary effects of sexually oriented business. In addition to the provisions governing adult entertainment establishments under Article XI of Chapter 10 of the Tucker Code of Ordinances, the zoning ordinance dictates where these businesses can operate within the city.

### **Recommendation:**

Staff recommends approval of TA-23-0006.

### **Background:**

Staff and the City Attorney have drafted code changes to Sec. 46-1125 and 46-1149 to update the general and supplemental use regulations involving adult entertainment establishments. It is common for a city to update these code provisions over time as rezoning occurs and institutional locations change over time.

### **Summary:**

The code changes include:

- Permit adult entertainment establishments in the M-2 zoning district and prohibit such businesses in the C-2 and M zoning districts.
- Reduce the distance separation between adult entertainment establishments to 200'.
- Reduce the minimum lot area for adult entertainment establishments to one (1) acre.
- Remove other supplemental regulations that are no longer needed based on the other code changes.

**AN ORDINANCE OF THE MAYOR AND CITY COUNCIL OF TUCKER, GEORGIA, FOR THE PURPOSE OF AMENDING THE CITY OF TUCKER CODE CHAPTER 46 ZONING (ARTICLES 4) REGARDING AMENDMENTS TO ADULT ENTERTAINMENT ESTABLISHMENT/ADULT SERVICE FACILITY REGULATIONS.**

**WHEREAS**, The Mayor and City Council desires to promote the public health, safety, and general welfare of the residents of the city; and

**WHEREAS**, the Mayor and City Council desires to achieve compliance with all applicable state and federal regulations; and

**WHEREAS**, the Mayor and City Council desires to provide for protection of the constitutional rights and obligations of all citizens within the city; and

**WHEREAS**, the Mayor and City Council previously adopted Resolution No. 2016-07-13 regarding various adverse secondary effects of sexually oriented businesses; and

**WHEREAS**, notice to the public regarding said text amendment has been duly published in The Champion, the Official News Organ of Tucker; and

**WHEREAS**, a Public Meeting was held by the Mayor and City Council of Tucker on October 23, 2023 and November 13, 2023; and

**WHEREAS**, The Mayor and City Council is the governing authority for the City of Tucker;

**WHEREAS**, the Mayor and City Council desires to amend Table 4.1 in Sec. 46-1125 to prohibit adult entertainment establishments in the C-2 and M zoning districts and allow the use in the M-2 zoning district, as shown in Exhibit A; and

**WHEREAS**, the Mayor and City Council desires to amend Table 4.1 in Sec. 46-1125 to prohibit adult service facilities in the C-2 and M zoning districts, as shown in Exhibit A; and

**WHEREAS**, the Mayor and City Council wish to amend the supplemental use regulations for adult entertainment establishment/adult services facility in Sec. 46.1149, as shown in Exhibit A; and

**NOW THEREFORE**, the Mayor and City Council of the City of Tucker while in Regular Session on November 13, 2023, hereby ordains and approves the amendments to Chapter 46 as shown in Exhibit A, which is attached to this ordinance.



So effective this 13<sup>th</sup> day of November 2023.

Approved by:

\_\_\_\_\_  
Frank Auman, Mayor

Attest:

\_\_\_\_\_  
Bonnie Warne, City Clerk

SEAL

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**Sec. 46-1125. Use table.**

Table 4.1 indicates the permitted uses within the base zoning districts. Even though a use is listed as an allowable use within a particular base zoning district, additional use restrictions may apply based on the applicable overlay zoning district requirements specified in article III of this chapter.

- (1) The uses listed in table 4.1 shall be permitted only within the zoning districts identified, and no use shall be established and no structure associated with such use shall be erected, structurally altered or enlarged unless the use is permitted as:
  - a. A permitted use (P);
  - b. A special use (SP) subject to the special land use permit application procedures specified in article VII of this chapter;
  - c. An administratively approved use (SA) subject to the special administrative permit procedures specified in article VII of this chapter;
  - d. An accessory use (Pa) as regulated by this article IV of this chapter. Table 4.1 does not list all accessory uses but clarifies uses acceptable as accessory, though not typically considered principal uses for the zoning classification;
  - e. Uses lawfully established prior to the effective date of the ordinance from which this chapter is derived.
- (2) Any use not listed in table 4.1 or interpreted to be allowed by the planning and zoning director pursuant to section 46-1224 is prohibited. Any applicant denied a permit to allow a use of property in a zoning district other than as provided in this section may file an appeal before the zoning board of appeals as provided in article VII of this chapter.
- (3) If there is a conflict between table 4.1 and the text of this chapter, the text shall prevail.

Table 4.1. Use Table

Key:

P—Permitted use; SA—Special administrative permit from director of planning; Pa—Permitted as an accessory use; SP—Special land use permit from BoC (SLUP)

Table 4.1. Use Table																									
Use	RE	RLG	R-100	R-85	R-75	R-60	RSM	MR-1	MR-2	HR-1	MHP	RN C	OI	OIT	NS	C-1	C-2	O D	M	M-2	MU-1	MU-2	MU-3	MU-4	See div. 2 of this article
Recreation and Entertainment																									
Adult entertainment establishments																	<del>P</del>		<del>P</del>	<del>P</del>					✓
Adult service facility																	<del>P</del>		<del>P</del>	P					✓
Drive-in theater																	P		P	P					✓
Fairground or amusement park																	P		P	P					✓
Indoor recreation (bowling alleys, movie theatres and other activities conducted wholly indoors)															P	P	P	P	P	P	P	P	P	P	
Nightclub or late night establishment																SP	SP	SP	SP	SP	SP	SP	SP	SP	✓
Outdoor recreation (miniature golf, batting cages, tennis, go-cart and other outdoor activities)	SP																P	P	SP						✓
Special events facility	SP												P	P		P	P	P	P		P	P	P	P	
Theaters with live performance, assembly or concert halls, or similar entertainment within enclosed building													P	P		P	P						P	P	

(Ord. No. 2016-06-07, att. (4.1.3), 7-11-2016; Ord. No. 2016-07-16, att. (4.1), 9-1-2016; Ord. No. 2016-10-37, att. (4.1), 11-14-2016; Ord. No. 2017-03-57, § 3, 3-27-2017; Ord. No. O2017-09-76, exh. A(4.1), 10-9-2017; Ord. No. O2018-03-7, exh. A(4.1), 4-9-2018; Ord. No. 2018-12-40, 1-14-2019; Ord. No. O2019-04-15, exh. A(4.1), 6-26-2019; Ord. No. O2020-03-07, exh. A, 3-23-2020; Ord. No. O2021-07-12, Exh. A, 8-9-2021; Ord. No. O2021-10-21, Exh. A, 11-8-2021; Ord. No. O2022-06-45, Exh. A, 7-11-2022; Ord. No. O2022-10-52, Exh. A, 11-14-2022)

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(Supp. No. 14)

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**Sec. 46-1149. Adult entertainment establishments; adult services facility.**

- (a) The regulations that follow and that otherwise are contained in this Code regarding adult entertainment establishments constitute content-neutral requirements that have been carefully designed to minimize adverse impacts caused by secondary effects of these establishments. The city finds that studies in other jurisdictions, including, but not limited to, studies referenced in article XI of chapter 10, demonstrating a correlation between these establishments and such negative secondary effects as diminishing market values in neighboring residential and related areas, increasing crime rates, difficulty in securing residential and related financing, an influx of patrons to these establishments from outside the immediate neighboring areas, and similar effects, are pertinent and relevant to the situation that exists in the city. The city further finds that there is evidence in the city demonstrating a correlative link between adult entertainment establishments and pernicious secondary effects upon surrounding communities. The city finds that adoption of regulations restricting these establishments to certain districts and imposing distance and development standards is consistent with the general comprehensive planning standards and policies of the city, will reduce the negative secondary effects caused by these establishments, and will afford protection to residential uses and other uses consistent with residential uses so as to protect the public health, safety and welfare while respecting and protecting the free speech rights of these establishments.
- (b) Adult entertainment establishments shall be subject to the following standards:
- (1) An adult entertainment establishment shall be located no closer than ~~1,000~~200 feet from another adult entertainment establishment. The measurement of distances for purposes of this subsection shall be from structure to structure along the shortest possible course (i.e., "as the crow flies"), regardless of any customary or common route or path of travel.
  - (2) An adult entertainment establishment shall be located on property that is located no closer than 1,000 feet from a residential district or from property being used for residential purposes. The measurement of distances for purposes of this subsection shall be from property line to property line along the shortest possible course (i.e., "as the crow flies"), regardless of any customary or common route or path of travel.
  - (3) An adult entertainment establishment shall be located no closer than 500 feet from any church and no closer than 1,000 feet from any governmental facility, residence, park, library, school ground, day care, or college campus. The measurement of distances for purposes of this subsection shall be from property line to property line along the shortest possible course (i.e., "as the crow flies"), regardless of any customary or common route or path of travel.
  - (4) The minimum lot area for an adult entertainment establishment shall be onetwo acres.
  - ~~(5) Adult entertainment establishments shall be located on lots with a minimum of 150 feet of road frontage on a public road, street, or highway.~~
  - ~~(56)~~ In addition to development standards governing ~~C-2 and the~~ M-2 zoning districts, buildings establishued in connection with an adult entertainment establishment shall be set back at least 40 feet from any other business establishment.
  - ~~(7) Adult entertainment establishments shall be required to provide one automobile parking space for each 75 square feet of gross building area.~~

(Ord. No. 2016-06-07, att. (4.2.6), 7-11-2016; Ord. No. 2018-12-40, 1-14-2019)



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Courtney Smith, Community Development Director  
**CC:** Tami Hanlin, City Manager  
**Date:** Nov. 8, 2023  
**RE:** Memo for TA-23-0005, Art. 7 SLUP Changes

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### **Description for on the Agenda:**

First Read and Public Hearing of an Ordinance for Amending the City of Tucker Code, Chapter 46 Zoning, including changes to special land use permit regulations. (TA-23-0005)

### **Issue:**

Staff and the City Attorney have drafted code changes to Sec. 46-1599 and 46-1600 pertaining to the limitations of special land use permits and the transfer of special land use permits. These changes are required due to the Zoning Procedures Law and the applicants' right to a hearing. The changes include:

- A SLUP can no longer automatically expire. There must be a hearing or an option for a hearing before a SLUP is terminated or extended.
- Allow for the transfer of special land use permits to successive property owners/business owners/users. The SLUP will run with the land, not the entity.

Staff will note that there are several options for how the expiration language in Sec. 46-1599 could be changed. Currently, the code states that a SLUP will automatically expire within 12 months if the use does not begin/construction does not begin. Staff may give one 12-month extension, if requested, but any additional extensions require the approval of mayor and city council. Staff first recommended that the SLUP be valid for 24 months and that any time extensions be granted by mayor and city council. Other options to consider include:

- Keep the time frame at 12 months and allow the community development director to grant one 12-month extension. The code would be written so that if the extension is denied by the community development director, the appeal of that decision would go before mayor and city council.
- Keep the time frame at 12 months and require any requests for extensions to go before mayor and city council.

The extension request would be reviewed using the same SLUP criteria that was used to grant the SLUP the first time. If the extension is reviewed by mayor and city council (at either 12 or 24 months), it would require two reads.



**Recommendation:**

Staff recommends approval of TA-23-0005.

Planning Commission recommends approval of TA-23-0005.

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## Sec. 46-1599. Limitations of special land use permits.

- (a) *Development of an approved special use.* The issuance of a special land use permit shall only constitute approval of the proposed use, and development of the use shall not be carried out until the applicant has secured all other permits and approvals required by any applicable law or regulation.
- (b) *Expiration of a special land use permit.* Unless a building permit or other required approval is applied for within ~~24~~12 months of the mayor and city council's approval, and construction pursuant to such building permit is promptly begun and diligently pursued thereafter, ~~the special land use permit shall expire automatically, unless the permit is extended upon application to a hearing shall be held before~~ the mayor and city council in accordance with subsection (c) of this section for the purpose of determining whether the permit shall terminate or be extended.
- (c) *Time extension of a special land use permit.* ~~A time limitation imposed on special land use permits by the mayor and city council and the expiration date established pursuant to subsection (b) of this section may be extended once for 12 consecutive months upon written request by the applicant and approval by the planning and zoning director. Any further time extensions shall be by the mayor and city council upon written request by the applicant and approval of the mayor and city council after compliance with the public notice provisions of section 46-1526(c). In making their decision, considering a request to extend, the planning and zoning director and the mayor and city council shall consider the criteria described in section 46-1594.~~
- (d) *Limitations on approvals for special land use permits.* ~~A special land use permit shall expire automatically and cease to be of any force or effect if~~ if such a use granted by a special land use permit shall, for any reason, be discontinued for a period of 12 consecutive months, a hearing shall be held before the mayor and city council in accordance with subsection (c) of this section for the purpose of determining whether the permit shall terminate or be extended.-
- (e) *Modifications to a special land use permit.* Changes to an approved special land use permit, including changes to approved conditions, expansion of the approved use, or expansion of building square footage, shall be subject to the same application, review and approval process as a new application, including the payment of relevant fees.

## Sec. 46-1600. Transfer of special land use permits.

A special land use permit, including the site plan and any conditions imposed at the time of the grant of the special land use permit by the mayor and city council, ~~shall be binding on all successive owners and subject to the provisions of Sec. 1599 beginning with the original date of issuance of such permit. is granted to the person, corporation or other legal entity that applied for the permit. A special land use permit expires automatically upon change in ownership of the subject property, unless the special land use permit is transferred as authorized in this section. A special land use permit may only be transferred from one person, corporation, or other legal entity to another person, corporation, or other legal entity upon application to the planning and zoning director. Any such application by any person, corporation, or other legal entity to transfer a special land use permit shall be accompanied by an affidavit of the proposed transferee certifying that the new owner or operator is familiar with and will abide by the approved site plan and all of the conditions, if any, imposed by the mayor and city council at the time of the grant of the special land use permit. At the time a special land use permit transfer is requested, the district councilmembers shall be notified by the planning and zoning director.~~



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ishri Sankar, PE  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for Text Amendment Ordinance for Traffic Calming (CH 38)

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### **Description for on the Agenda:**

The City of Tucker Public Work Department's Traffic Calming Policy as developed based on best industry practices.

### **Recommendation:**

The Department of Public Works is seeking feedback, input, and questions regarding the proposed policy.

### **Background:**

Based on prior experience in neighboring cities and reviewing documentation/policy established by other cities, the Public Works Department has developed a draft traffic calming policy to alleviate vehicular speeding through residential streets and neighborhoods.

In Summary, the process to create a traffic calming district would include:

The process is initiated when any city residential property owner can obtain an interest petition from the Public Works department. If they return the petition within 45 days with signatures of 50% of the property owners in the area identified, the public works department will order a traffic study for the impacted area.

Traffic studies will be conducted based on the order qualifying in which qualifying petitions are received and subject to the availability of budgeted funding.

After a traffic study is returned, the public work department will evaluate and determine based on the study whether traffic calming measures are appropriate and the petitioners are notified of the decision.

If the department decides that measures are warranted, it will design a plan layout with details and then share the plan with the initiators, indicating the annual cost of \$25/year/property in the impacted area for maintenance that would be imposed if approved and provide the initiators with a final traffic-calming petition.

If the final traffic calming petition is returned to the public works department within 90 days with signatures representing 75% of the properties, then the public works director presents a resolution for city council consideration that creates

the special services district. If approved, the measures are installed and the fees for the special district are collected annually.

If, after 10 years, a petition to remove the traffic-calming petition bearing signatures representing 75% of the property owners in the area is received and returned to the public works department within 90 days, then a resolution to abolish the special district and eliminate the fees shall be presented for consideration by city council.

**STATE OF GEORGIA**

**CITY OF TUCKER**

**ORDINANCE O2023-**

**AN ORDINANCE BY THE MAYOR AND CITY COUNCIL FOR THE CITY OF TUCKER, GEORGIA FOR THE PURPOSE OF AMENDING THE TUCKER CODE OF ORDINANCES TO CREATE ARTICLE IV, TRAFFIC CALMING, OF CHAPTER 38, STREETS, SIDEWALKS, AND OTHER PUBLIC PLACES; TO PROVIDE DEFINITIONS; TO PROVIDE FOR THE CREATION OF SPECIAL DISTRICTS UNDER CERTAIN CIRCUMSTANCES; TO PROVIDE FOR PROCEDURES; TO PROVIDE FOR THE CREATION OF ENTERPRISE FUNDS; TO PROVIDE FOR FEES AND BILLING RELATED TO THE FUNDING OF SAID DISTRICTS; TO PROVIDE AN EFFECTIVE DATE; AND FOR OTHER PURPOSES.**

**WHEREAS**, the Georgia Constitution, Article IX, Section II, Paragraph VI(c) empowers this City to create special districts for the provision of local government services within such districts; and fees, assessments, and taxes to be levied and collected within such districts to pay, wholly or partially, the cost of providing such services therein and to construct and maintain facilities therefor; and

**WHEREAS**, the City Council desires to create a system by which property owners on residential streets can chose to have a higher level of service related to traffic calming infrastructure; and

**WHEREAS**, a first and second read of this ordinance by the Mayor and Council took place on November 13, 2023 and December 11, 2023; and

**WHEREAS**, this ordinance is adopted to address the interests of public health, welfare, and safety of the citizens of the City of Tucker;

**NOW THEREFORE**, the Mayor and City Council find that in the interests of the public health, safety, and welfare of the residents and visitors to this city, the enactment of this ordinance by reasonable means, as allowed under state law, and not unduly oppressive is necessary to protect the health, safety, and general welfare of the citizens of the city.



## **SECTION ONE**

The Code of Ordinances of the City of Tucker, Georgia is hereby amended to add Article IV to Chapter 38, thereof, which shall read in words as follows:

### **ARTICLE IV. -TRAFFIC CALMING**

#### **Sec. 38-50. - Definitions.**

For purposes of this article, certain terms and words are defined. Where words have not been defined, but are defined in a subsequent sub-section of this article, those words shall have the meaning as defined therein. The following words, terms and phrases when used in this article shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

*AASHTO* means the American Association of State Highway and Transportation Officials.

*Affected area* means a geographic portion of a neighborhood consisting of all property owners whose quality of life as a resident in the neighborhood, and not necessarily as a traveler through the neighborhood, is being directly impacted by the cut-through or speeding traffic problem being addressed. The affected area will include all lots from which residents must traverse the traffic calming measure. The affected area will also include all lots from which residents may have an alternate route without traffic calming measures but whose lots have driveways that access the residential street for which traffic calming measures are sought.

*Department* means the public works department.

*Eligible petitioner* means a person whose name is recorded as a property owner in the tax records maintained by the county's tax commissioner and board of tax assessors for the address listed on the petition that falls within the affected area.

*Initiator* is a real property owner who has requested an initial interest petition form and/or has assumed a primary role in circulating the city's traffic study petition and the subsequent traffic-calming petition and undertakes to serve as the city's sole contact with respect to the progress of the initial interest petition and any subsequent traffic study and traffic-calming petition.

*I. T. E.* means the Institute of Transportation Engineers.

*MUTCD* means the Manual on Uniform Traffic Control Devices.

*Real property owners* means homeowners or other real property owners as indicated in the tax records maintained by the county's tax commissioner and board of tax assessors.

*Reference number* means the number assigned to a completed initial interest petition which meets the city's criteria for a study that will be used to determine the order in which traffic studies will be conducted.

*Residential street* means a street classified and defined as "residential" in the records of the City of Tucker.

*Traffic-calming measures* means those methods and processes, prescribed by "AASHTO" or other nationally recognized organizations, that the city may use to reduce aggressive driving behavior that impairs the quality of life of its citizens in any neighborhood in which the posted speed limit is no greater than thirty (30) miles per hour. Such measures include, but are not limited to, speed humps, bicycle lanes, center traffic islands, splitter islands, and striping and turn restriction lanes.

*Traffic-calming program guidelines* means the guidelines for the design and application of speed humps and alternative traffic-calming measures utilized by the city public works department.

*Traffic study* means the process by which data pertinent to the flow, rate of speed and density of traffic, collected over a defined period of time, is measured and analyzed to determine its impact on the safety of citizens within a neighborhood or affected area.

Sec. 38-51. - Procedure for requesting a traffic study.

- (a) The city shall require the filing of the initial interest petition on a form promulgated by the department director or the director's designee.
- (b) Any eligible petitioners interested in pursuing the installation of traffic-calming measures on a residential street, upon request to the department, will be provided with an initial interest petition for the department to perform a traffic study. The initial interest petition must be marked with the date on which it is required to be returned to the department, hereinafter referred to as the return date. Such return date shall be forty-five (45) days after the date the department issues the initial interest petition. The initial interest petition will allow for eligible petitioners to sign in favor of requesting a traffic study.
- (c) All eligible petitioners signing an initial interest petition to request that the department carry out a traffic study shall hereinafter be referred to as applicants.
- (d) All applicants must be eligible petitioners.

Sec. 38-52. - Initial interest petition.

- (a) The department will not consider an initial interest petition unless it is complete, as that term is defined herein, and unless at least fifty (50) percent of the properties in the affected area are represented by signatures of eligible petitioners in the affected area are in favor of the traffic study.
- (b) The completed initial interest petition shall be filed with the department by the return date as provided for in section 38-51 or it shall be deemed abandoned and any further action by the city will require a new initial interest petition.
- (c) In order to be considered complete, the initial interest petition shall include all of the following:
  - (1) The full name, signature, home address, and daytime telephone number of each eligible petitioner that signed the initial interest petition.
  - (2) The date upon which each eligible petitioner signed the initial interest petition.
  - (3) A description of the precise area for which the traffic study is requested by reference to the name of the subdivision or popular name of the neighborhood, or the bridges, streets, roads and where appropriate with house numbers that identify the area where a perceived speeding or cut-through problem exists.
  - (4) The name, address and telephone number of an initiator.
- (d) Only one (1) eligible petitioner for each property in the affected area may sign the initial interest petition.

Sec. 38-53. - Evaluating the initial interest petition and informing the initiator.

- (a) Upon receipt of a completed initial interest petition, the department will make a determination as to whether at least fifty (50) percent of the properties in the affected area are represented by signatures of eligible petitioners.
- (b) After the department has received the complete initial interest petition, no signature will be withdrawn from an initial interest petition unless the department is notified in writing within thirty (30) days, that there is reasonable proof that fraud or other impropriety occurred regarding the obtaining of the petitioner's signature.
- (c) Within sixty (60) days, the initiator of the initial interest petition will be notified in writing by the department as to whether the initial interest petition meets the criteria for a traffic study. In the event that the department decides to conduct a traffic study, the written notification to the initiator will include a reference number assigned to the initial interest petition for the conduct of the study.
- (d) In the event that the initiator moves away or is otherwise no longer a point of contact for the department and a new initiator's name or address has not been provided to the

department, the department shall consider the initial interest petition abandoned and shall cease all work on processing of the initial interest petition and any subsequent traffic study.

Sec. 38-54. - Traffic study to comply with national standards.

National standards promulgated by the American Association of State Highway and Transportation Officials, the Institute of Transportation and other national standards shall govern the execution of traffic studies and the design and installation of traffic-calming measures.

Sec. 38-55. - Priority for the conduct of traffic studies.

- (a) The department will conduct traffic studies based on the order in which completed petitions are received, relying on the reference number assigned to the completed initial interest petition, unless circumstances described in subsection (b) are found to apply.
- (b) The department reserves the right to change the order in which a traffic study is conducted where the department determines that there is an initial interest petition further down the waiting list for an area that may relate to, or be affected by, another traffic study to be conducted on a neighboring street or in a neighboring area.

Sec. 38-56. - The affected area and the traffic-calming plan.

- (a) Where a traffic study is warranted it will be conducted at a time to be determined by, and within the sole discretion of, the department; provided however, that such study shall be completed within twelve (12) months of a determination that the initial interest petition initiator is notified that the completed initial interest petition has met the criteria as provided for in section 38-53.
- (b) Upon completion of a traffic study, the department shall make a determination as to whether the results clearly demonstrate that the installation of traffic-calming measures are warranted based upon the criteria established in the traffic-calming program guidelines.
- (c) When considering traffic-calming program guidelines relating to speeding, the determination regarding whether the established criteria for traffic-calming measures have been met will be based on a comparison of actual study speeds obtained to the posted speed limit. When considering the criteria in traffic-calming program guidelines that relate to cut-through, the determination will include a comparison of cut-through traffic volumes obtained in a study to allowable volumes of cut-through traffic established in those guidelines.

Sec. 38-57. - Notification that traffic-calming measures are not warranted.

Following the completion of the study, if the department director or designee determines that no traffic-calming measures are warranted, then the department director or designee shall notify the initiator of that conclusion in writing.

Sec. 38-58. - Notification to initiator for commencement of traffic-calming conceptual design and presentation of the traffic-calming plan for public hearing.

- (a) Where traffic-calming measures are warranted, the department shall, within a reasonable time following the completion of the traffic study, not to exceed twelve (12) months, prepare a traffic-calming conceptual plan and notify the initiator in writing about the traffic-calming conceptual plan. The plan shall be available from city hall.
- (b) The traffic-calming conceptual plan must identify the affected area and include a recommendation for a specific traffic-calming measure or a combination of such measures that the department has determined to provide the most effective solution to the speeding and/or cut-through problems identified in the traffic study for installation in the affected area, having regard to the pavement width, grades, the physical features of the proposed location for the installation measures and any structures that facilitate drainage. The plan may also include alternative measures that could be installed to provide some relief to the speeding and/or cut-through problems identified in the traffic study for installation in the affected area, having regard to the pavement width, grades, the physical features of the proposed location for the installation measures and any structures that facilitate drainage.

Sec. 38-59. - Traffic-calming petition; choice of measures.

- (a) Following the publication of the traffic-calming conceptual plan, the department director or designee shall provide the initiator with a traffic-calming petition form to be used for recording all of the signatures. The petition must set forth the traffic-calming measures identified in the traffic-calming conceptual plan prepared by the department and the annual fee to be collected from each real property parcel. The traffic-calming petition will allow for eligible petitioners to sign in favor of requesting the implementation of the traffic-calming plan.
- (b) The initiator is responsible for circulating the traffic-calming petition to all eligible petitioners in the affected area.
- (c) A traffic-calming petition must be returned to the department within ninety (90) days of the notification to the initiator. If the initiator fails to return the completed traffic-calming petition within such time frame, it will be deemed abandoned and no further action shall be taken on the traffic calming petition or the initial interest petition from which it arose.
- (d) The traffic-calming petition shall indicate the full name, signature, home address date, and daytime telephone number for each eligible petitioner signing the selection petition.
- (e) The tax records maintained by the county's tax commissioner and board of tax assessors shall control in determining whether a signatory to the petition is a real property owner and thus an eligible petitioner.



Sec. 38-60. Creation of a special tax district and assessment of costs associated with the maintenance of the traffic-calming measure.

- (a) In order for the affected area to be eligible for the implementation of the traffic-calming measures, the petition must secure signatures in favor of the installation of traffic-calming measures from eligible petitioners representing seventy-five (75) percent of properties in the affected area.
- (b) In the event that the petition secures the requisite percentage of signatures in favor of the approved traffic-calming measure or combination of traffic calming measures, the director of the department shall present a resolution to the city council at a regularly scheduled meeting for consideration.
- (c) The city council shall conduct a hearing on the resolution utilizing the same rules as those utilized for the conduct of hearings on zoning matters.
- (d) Any resolution approving implementing traffic-calming measures pursuant to this Article shall be funded by special tax district which shall be created as part of the resolution.
- (c) The special tax district shall be created to include all of real property in the affected area for which the traffic-calming measure was approved. The annual fee identified in the traffic-calming conceptual plan shall be assessed to and collected from property owners within the affected area as part of their annual property tax assessment for the maintenance of the traffic-calming measures installed.

Sec. 38-61. - Removal of traffic-calming measures.

- (a) Upon presentation of a petition from eligible petitioners representing seventy-five (75) percent of the properties in the affected area, traffic-calming measures previously installed may be removed. No such petition shall be presented earlier than ten (10) years after initial installation of the traffic-calming measure(s).
- (b) A removal petition may be obtained from the department director or the director's designee.
- (c) The removal petition shall be returned and filed with the department within ninety (90) days of the date on which it was provided pursuant to a request or it shall be deemed abandoned and any further action by the city shall require a new removal petition.
- (d) The removal petition shall be presented to the city council at a public hearing within sixty (60) days of the department's receipt of the petition.

- (e) The procedures for the conduct of the city council hearing held pursuant to this section shall be substantially the same as those utilized under section 38-60.

Sec. 38-62. – Traffic-Calming Special District Fees.

- (a) It shall be the policy of the city that fees for traffic-calming special districts, shall be equitably derived through methods which have a demonstrable relationship to the impacts imposed by maintenance of the traffic-calming infrastructure on properties served by the traffic calming infrastructure. Traffic-calming fees shall be structured so as to be fair and reasonable, and the resultant charges shall bear a substantial relationship to the cost of maintain service.
- (b) The cost of the traffic-calming program and infrastructure may include operating, capital investment and reserve expenses, and may consider management problems, needs and requirements.
- (c) Fees shall not be based on property values and such fees shall not be construed to be a tax. All properties within the affected area shall be charged the fee.

**SECTION II.**

This ordinance shall become effective upon adoption.

SO ORDAINED, this 11th day of December 2023.

Approved:

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Frank Auman, Mayor  
City of Tucker

ATTEST:

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Bonnie Warne, City Clerk

[SEAL]



CITY OF TUCKER  
PUBLIC WORKS DEPARTMENT

*TRAFFIC CALMING POLICY*

Revised: August 2023



## **I. Introduction**

Because of increased congestion on the City's arterial and collector road network, combined with driver's desires to find shorter travel routes, drivers frequently seek alternate travel routes. Frequently, the routes include the City's local and residential subdivision streets. Many of these streets have experienced increases in volume and speeding that has diminished the quality of life and the safety of residents, pedestrians, bicyclist, and other motorists.

Traffic Calming as defined by the Institute of Transportation Engineers (ITE), is the use of physical and psychological devices "to reduce the negative effects of motor vehicle use, alter driver behavior and improve conditions for non-motorized street users." The use of Traffic Calming techniques may return the quality of life and safety in a neighborhood by alerting drivers to share the road, drive with more care, drive more slowly, and, in some cases, divert to more appropriate routes.

While each neighborhood and each situation may be somewhat unique, a systematic approach is taken by the Traffic Calming Program. Thus, the same definitions and criteria, as outlined in this policy, are applied in all cases. As a part of that approach, the transportation system of the City needs to be considered as a whole. Solving a problem on one neighborhood or street should not cause another problem to appear somewhere else.

## **II. Minimum Requirements**

In order for the installation of Traffic Calming Measures to be considered, the following criteria must be met:

1. Only local residential subdivision streets with a speed limit of 30 mph or less are eligible for the Traffic Calming Program.
2. Streets classified as Arterial, Collector, and/or Thoroughfare are not eligible for Traffic Calming.
3. The 85<sup>th</sup> percentile speed as measured by a speed study must be 11 mph greater than the posted speed limit of the street for residential subdivision streets with a measured two-way, 24-hour traffic volume less than 1,000 vehicles per day. On residential subdivision streets with volumes above this threshold, the 85<sup>th</sup> percentile speed must be 9 mph greater than the posted speed.
4. The traffic study must show that the Traffic Calming techniques will not divert traffic on to other residential subdivision streets in the study area.
5. Impacts to emergency vehicle response times must be considered and minimized.
6. Pedestrian and Bicycle access must be preserved
7. The neighborhood Traffic Calming plan shall be designed using sound planning practices and engineering judgment.



### III. Definitions

For purposes of this Policy, certain terms and words are defined. Where words have not been defined, but are defined in a subsequent section of this Policy, those words shall have the meaning as defined therein. The following words, terms and phrases when used in this Policy shall have the meanings ascribed to them in this section, except where the context clearly indicates a different meaning:

**AASHTO** means the American Association of State Highway and Transportation Officials.

**Affected area** means a geographic portion of a neighborhood consisting of all property owners whose quality of life as a resident in the neighborhood, and not necessarily as a traveler through the neighborhood, is being directly impacted by the cut-through or speeding traffic problem being addressed. The affected area will include all lots from which residents must traverse the traffic calming measure. The affected area will also include all lots from which residents may have an alternate route without traffic calming measures but whose lots have driveways that access the segment of the residential subdivision street for which traffic calming measures are sought.

**Department** means the City of Tucker's Public Works Department.

**Eligible Petitioner** means the person whose name is recorded as the owner or co-owner of real property in the tax records maintained by the DeKalb County's Tax Commissioner and Board of Tax Assessors for the address listed on the petition within the affected area or an alternate individual who is legally authorized to act as an agent for the individual, trust, or organization listed as the owner or co-owner.

**Neighborhood Coordinator** is an eligible petitioner who has initiated a request for traffic calming measures and/or has assumed a primary role in circulating the subsequent traffic-calming petition and undertakes to serve as the City's sole contact with respect to the progress of any subsequent traffic study and traffic-calming petition.

**ITE** means the Institute of Transportation Engineers.

**MUTCD** means the Manual on Uniform Traffic Control Devices.

**Owner of Real Property** means homeowners or other real property owners as indicated in the tax records maintained by the DeKalb County Tax Commissioner and Board of Tax Assessors.

**Local Residential Subdivision Street** means a street within a platted residential subdivision.

**Traffic-calming measures** means those methods and processes, prescribed by "AASHTO" or other nationally recognized organizations, that the City may use to reduce aggressive driving behavior that impairs the quality of life of its citizens in any neighborhood in which the posted speed limit is no greater than thirty (30) miles per hour. Such measures include, but are not limited to, speed humps, bicycle lanes, center traffic islands, splitter islands, and striping and turn restriction lanes.





**Traffic study** means the process by which data pertinent to the flow, rate of speed and density of traffic, collected over a defined period of time, is measured and analyzed to determine its impact on the safety of citizens within a neighborhood or affected area.

#### IV. Traffic Calming Process

1. A Homeowners' Association, neighborhood group, or individual can request a Traffic Calming Project for their neighborhood or street. The Public Works Department will discuss with them the:
  - Application Process
  - Responsibilities of the Neighborhood Coordinator
  - Traffic Study Process
  - Petition Requirements
  - Financial Participation
  - Potential Passive Traffic Calming Solutions
2. Upon establishment of the Neighborhood Coordinator, the Department of Public Works will define the affected area and provide a list of owner names and addresses to the Neighborhood Coordinator.
3. To establish initial interest from the neighborhood, the Neighborhood Coordinator must submit an Initial Petition Form with signatures showing support for a Traffic Calming project from a minimum of 50% of the property owners within the affected area. (See Appendix B for example petition forms.)
4. The Public Works Department will then conduct appropriate studies to determine the existence and extent of the problem.
  - If the results of the study indicate that the minimum requirements established in Section II of this document are not met, the neighborhood coordinator will be informed in writing. The neighborhood may not submit future requests for a minimum of 2-years.
  - If the results of the study indicate that the street meets the minimum requirements of Section II, Public Works staff will develop recommendations, including suggested passive and active traffic calming measures.
5. For qualifying streets Public Works staff will schedule a neighborhood meeting and invite the households within the affected area to discuss study findings, suggested passive and active measures, definition of the affected area, anticipated costs, and the petition process.
6. Public Works will prepare a preliminary design of the proposed traffic calming measures and provide it to the neighborhood coordinator for distribution. A petition deadline date will be established 90 calendar days from the date of distribution and communicated to the neighborhood coordinator.
7. To show awareness and support for the proposed traffic calming plan, the neighborhood coordinator must submit a petition to Public Works with signatures of 75% of the property owners within the affected area approving the proposed plan. If the neighborhood cannot obtain

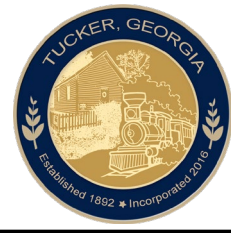


75% support, the neighborhood may not submit future requests for a minimum of 2-years from the initial petition date.

8. Public Works shall verify the signatures on the petition and, once verified, will develop a final project design and cost, based on the suggested passive and active measures.
9. Final design and cost for any active measures will be presented to the Mayor and City Council for funding and approval.
10. The City will fund 100% of the cost-necessary for construction of any active traffic calming measures. Funding will be allocated to neighborhoods in the order that their petition is approved by the City Council. Any neighborhoods that are approved for the construction of active traffic calming measures after the current budget has been expended will be funded out of future year's budgets.
11. Passive measures and/or any needed modifications or temporary measures may be implemented and studies for effectiveness before active measures are installed.
12. Upon City Council approval and the allocation of funds in the City budget, the traffic calming project will be implemented at the direction of the Public Works Department.
13. Each property in the affected area will be assessed a \$25 fee per year on their property tax bill for maintenance of the Traffic Calming Devices, beginning the year after the devices are installed. Annually the Public Works Department will compare the annual revenue generated by the fee to the replacement cost of the traffic calming measures and recommend adjustment recommendations to the city council if costs increase beyond the revenue generated.
14. Within 6 months of project installation, Public Works staff will conduct follow-up studies to measure project effectiveness.
15. In the case of resurfacing, most existing traffic calming devices will need to be removed in order for resurfacing to take place. However, existing traffic calming devices will be considered as "grandfathered" and will be replaced following completion of the resurfacing project. No additional neighborhood funding or petitions will be required.

#### **IV. Removal of Traffic Calming Devices**

If the neighborhood decides that they no longer want previously installed traffic calming devices, they must follow the same procedure to obtain 75% support by petition as listed above for installation. Active traffic calming devices should remain in place at least 12 months before removal. If devices are removed, the road must also be brought back to City standards. The City of Tucker reserves the right to remove speed humps for any reason.



## **APPENDIX A – EXAMPLE TRAFFIC CALMING MEASURES**



### Appendix A – Example Traffic Calming Measures

#### *Passive Measures*

The primary use of passive measures is to reduce the speed of traffic while raising awareness of the traffic problems on residential subdivision streets. These methods are less costly than active devices, as they do not affect the geometry of the roadway or require extensive construction. Passive traffic calming measures include radar signs, re-striping, and installing signs.

General advantages of passive traffic calming measures:

- Pose no restrictions for bicycles or pedestrian traffic
- Does not affect intersection capacity or operation
- Cheaper than active traffic calming devices
- Raise awareness of drivers to speeding problems
- No impacts to transit or emergency services
- Can be done regardless of the grade of the road

General disadvantages of passive traffic calming measures:

- Not necessarily enforceable
- Not always effective over time

#### **Radar Signs**

##### Description

Radar signs may include short-term deployment of the DeKalb Police radar trailer or long-term installation of a radar sign capable of measuring vehicle speed and graphically displaying the speed of the motorist.

##### Primary Purpose

Reduce vehicle speeds by raising the awareness of the driver to their speed

##### Advantages

- Possible speed reduction at the radar location
- Opportunity to collect volume and speed data, dependant upon equipment

##### Disadvantages

- Not an enforcement tool
- Minimal effectiveness on reducing traffic speeds over time except under certain conditions
- Fixed locations require regular maintenance



### Other Considerations

Based on before and after studies conducted by the city, fixed radar signs appear to have little effect on speeds over time except when located on straight, downhill sections of certain roadways. Future installation of fixed radar signs should only be considered under the following conditions:

- When the posted speed limit is not less than 35 mph, and the 85<sup>th</sup> percentile speed is greater than 8 mph over the posted speed, AND
- Where the roadway is straight for over 1,000 feet and on a downhill grade of over 3%.

Based on these conditions permanent radar sign installation will be limited to arterial and collector roads. Upon request, locations will be considered based on an engineering review by Public Works and funding availability.

## **Narrowing lanes**

### Description

Striping is used to narrow travel lanes to 10-foot or 11-foot widths.

### Primary Purpose

Reduce vehicle speed by creating the perception of a narrower road. Generally, speeds are lower in 10-foot wide lanes than in 12-foot wide lanes.

### Advantages

- Re-striping can include bike lanes. This reduces the vehicular lane width while also providing a safe place for bikes to travel. Striping to include bike lanes also reduces the potential for driver to drive outside the lane.
- Striping is easily modified

### Disadvantages

- Citizens do not always perceive striping to be an effective traffic calming technique

### Other Considerations

Truck and bus traffic should be considered when determining the appropriate lane width.

## **Signs and Signals**

Advisory and regulatory signs and signals can assist with many problems addressed by traffic calming. Installation of any signs and signals should conform to the standards set forth in the *Manual on Uniform Traffic Control Devices (MUTCD)*, as established by the Federal Highway Administration





### Turn Movement Prohibition

#### Description

Particular turning movements are prohibited by the installation of enforceable signage at an intersection. These signs can be installed to restrict certain turning movements altogether or just for certain hours (usually the peak traffic hours).

#### Primary Purpose

Helps to prevent excessive volumes on residential subdivision streets during peak hours

#### Advantages

- Enforceable manner of preventing cut through traffic

#### Disadvantages

- Turn movement prohibition applies to everyone – including residents
- Can further restrict traffic flow in already congested areas

#### Other Considerations

When restricting turn movement, special care should be given to considering the overall local system to prevent moving the problem to another location.

### One Way Treatment

#### Description

One-way treatment involves having streets or roadways upon which vehicular traffic is allowed to travel in one direction only.

#### Primary Purpose

Increase the safety of a roadway by reducing the number of conflicting movements. One-way treatment is not a traffic calming method, but can be used to manage traffic flow in an area.

#### Advantages

- Increases the safety of the roadway by reducing the number of conflicting movements
- One way treatment of a roadway is enforceable

#### Disadvantages

- Changing a street from a two-way operation to a one-way operation takes a lengthy implementation process
- Changing a street from a two-way operation to a one-way operation may impact emergency services or transit systems



- Changing a street from a two-way operation to a one-way operation requires the consideration of the impact on the local system. Steps should be taken to ensure that making a roadway one way will not move the problem elsewhere or create new problems.
- Works best in a roadway network comprised of parallel roads

### Other Considerations

Emergency services and transit routes should be considered when changing from two-way operation to one-way operation. Their opinions will be solicited and weighed appropriately.

## **On-street Parking**

### Description

On street parking provides designated parking spots on the sides of roadways.

### Primary Purpose

On-street spaces provide both additional parking and traffic calming benefits. Drivers tend to travel more slowly when driving past a lane of parked cars due to a reduction in the perceived travel way.

### Advantages

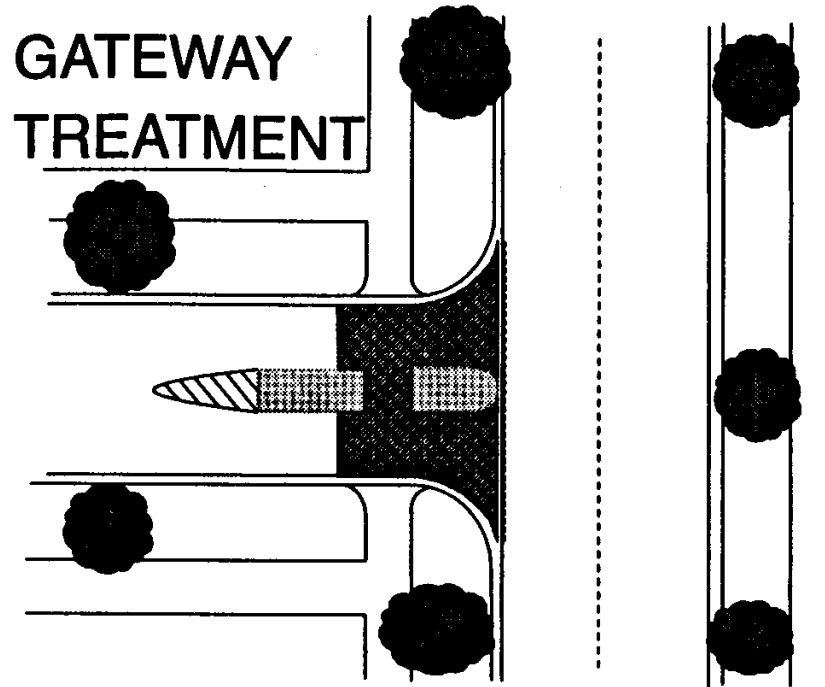
- May reduce the speeds of the passing traffic
- Increase pedestrian safety – on-street parking provides a greater buffer between the sidewalk and the traveling vehicular lanes

### Disadvantages

- Common perception that on-street parking is not aesthetically pleasing
- Possible difficulty seeing pedestrians crossing at mid-block locations

### Other Considerations

Parking spaces should be prohibited at least 100' from an intersection and at least 10' on both sides of a fire hydrant.



## Gateway and Pavement Treatments

### Description

Gateway treatments are decorative entrances indicating transition from one area to another. Pavement treatments involve decorative pavement in the form of different colors and textures.

### Primary Purpose

Visually alert the driver that they are entering a new area, such as a residential area from an arterial road. Gateway treatments can include signs, decorative walls, arches, pillars, hedgerows, etc. Pavement treatments can include colored concrete, stamped concrete, or bricks.

### Advantages

- Versatile and easily individualized for each specific neighborhood
- Aesthetically pleasing
- Easy to implement with active traffic calming devices

### Disadvantages

- Limited utility in speed reduction

### Other Considerations



Gateway treatments should not obscure proper sight distance, therefore making the intersection less safe. Structures are not permitted in the public right-of-way.

### **Increased Patrolling and Target Enforcement**

#### Description

Police can intensify coverage for an area of concern, most commonly to enforce speed limits and stop signs.

#### Primary Purpose

Increase the awareness of the traveling public of law enforcement and to encourage them to obey traffic laws.

#### Advantages

- Citizens perceive as achieving results
- Decrease in traffic violations in the general area

#### Disadvantages

- Police generally do not have the staff to regularly patrol most residential areas
- Time that police officers spend patrolling for traffic violators is not directly spent in reducing violent crime
- Many residential subdivision streets have insufficient geometric alignment for radar enforcement
- Increasing patrols and enforcement only reduces speeds in the general area during the period of intensified attention. Once the intensity subsides, the traffic violators typically return to their previous habits.
- Enforcement applies to all residents in violation

#### Other Considerations

If heavy truck traffic is an issue, citizens can request that the road be added to the truck route prohibition list.

### **Neighborhood Safety and Awareness Program (Neighborhood Watch)**

#### Description

Teach techniques motorists, pedestrians, and parents can use to help address speeding issues, and increase awareness of their driving habits. Unique programs can be developed for specific cases, such as crime awareness or parking enforcement.



### Primary Purpose

Increase the awareness and activity of the neighborhood. Frequently, it is members of the neighborhood who are the most flagrantly violating traffic ordinances (i.e. stops signs or the speed limit).

### Advantages

- Involves the neighborhood actively and regularly in the solution
- Easily combines with other traffic calming techniques

### Disadvantages

- Citizens do not always perceive neighborhood watch programs as effective traffic calming techniques
- Program effectiveness is proportional to neighborhood involvement

## **Right-of-Way Clearing**

### Description

Clearing of brush or other objects in the right-of-way that obscure signs or sight distance either along roadways or at intersections can improve safety.

### Primary Purpose

Maintain minimum sight distances along roadway. Sight distances over a certain length may increase the speed of a roadway, but sight distances below the minimum adversely affect safety. Clearing the right-of-way does not assist in traffic calming, but does assist in improving safety.

### Advantages

- Potential quick turn-around on a request for the clearing of the right-of-way
- City program is already in place to trim trees and clear the right-of-way
- Improve safety of intersections and roadways by providing ample view of signs and improving sight distances

### Other Considerations

The City of Tucker encourages homeowners to keep the right of ways clear from vegetation or improvements that may affect public safety. Right of way clearing performed by City work crews may be done without regard for existing landscaping or vegetation.





### *Active Measures*

The primary purposes of active traffic calming devices are to reduce the speed of traffic, improve bike and pedestrian safety, and raise awareness of traffic problems along a residential subdivision street. These methods are more expensive than passive devices because they often affect the geometry of the roadway, which requires extensive construction and maintenance. Active traffic calming devices include speed humps, traffic circles, and splitters.

General advantages of active traffic calming devices

- Effective at solving specific traffic issues, especially speeding
- Raises awareness of drivers to speeding problems

General disadvantages of active traffic calming devices

- May pose restrictions for bicycle traffic
- May negatively impact transit or emergency services
- Higher cost than passive traffic calming measures

### **Standard Speed Humps**

#### Description

The standard speed hump is a 22-foot long, four to six inch high, and constructed of asphalt or concrete, extending the entire width of the roadway which causes vertical displacement of the vehicle. The hump consists of two 6 foot long ramps flanking a 10 foot flat section. Humps can be colored and/or textured to add aesthetic appeal.

#### Primary Purpose

Reduce vehicle speeds by providing vertical displacement of the vehicle that result in a jolt if the vehicle's speed is too high.

#### Advantages

- Reduces vehicle speeds – encouraging 25 mph vehicle speeds
- Pose no restrictions for bicycles
- Do not affect intersection capacity or operation

#### Disadvantages

- Potentially increase traffic noise from braking and acceleration of vehicles, particularly buses and trucks

#### Transit Service Impacts

22-foot speed humps create a minor impact to transit scheduling.

#### Emergency Services Impacts



When speed hump designs are selected for any street, one should consider whether it is used as a primary response route. Minor impacts to response time may occur.

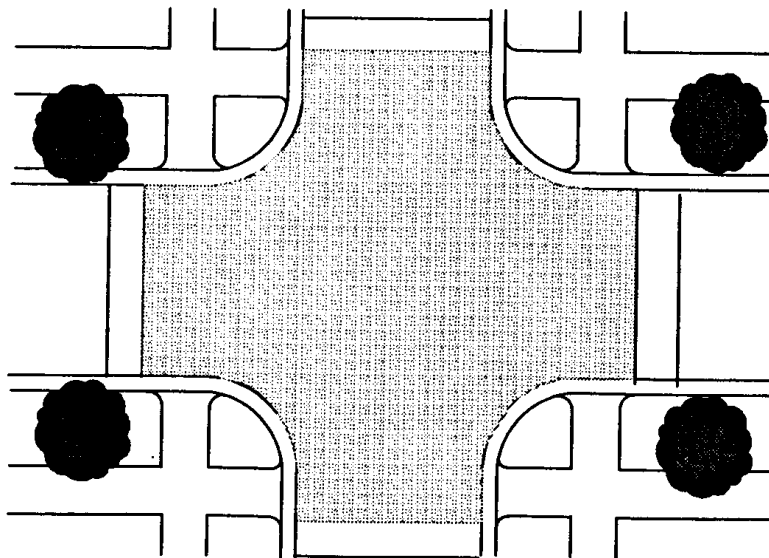
#### Other Considerations

Speed humps should not be considered on grades of eight percent or greater.

For streets that qualify under the lower speed threshold due to higher traffic volume, active measures other than speed humps should be considered.

### Intersection Humps

#### Intersection Hump



#### Description

Similar to the speed hump, the intersection hump slopes are all straight lines and are typically constructed out of concrete with a surface treatment or patterning. The top of the intersection hump is flat, and the one pictured above extends beyond the boundary of the intersection providing a spot close to the curb for pedestrians to safely cross.

#### Primary Purpose

Reduce vehicle speeds at intersections by providing vertical displacement of the vehicle that results in a jolt if the vehicle's speed is too high. They may also provide a place for pedestrians to safely navigate the intersection. At an intersection where an all-way stop is unwarranted, an intersection hump forces motorists to navigate the intersection more slowly, making them more likely to yield the right-of-way to other motorists and pedestrians.

#### Advantages

- Reduce vehicle speeds – encourage 25 mph vehicle speeds
- Pose no restrictions for bicycles



- Increase pedestrian safety by providing a distinct location for drivers to yield right-of-way
- Increase intersection safety by providing a distinct location for drivers to yield right-of-way to other legs of the intersection

#### Disadvantages

- Potentially increase traffic noise from braking and acceleration of vehicles particularly buses and trucks

#### Transit Service Impacts

Intersection humps do not significantly impede transit services.

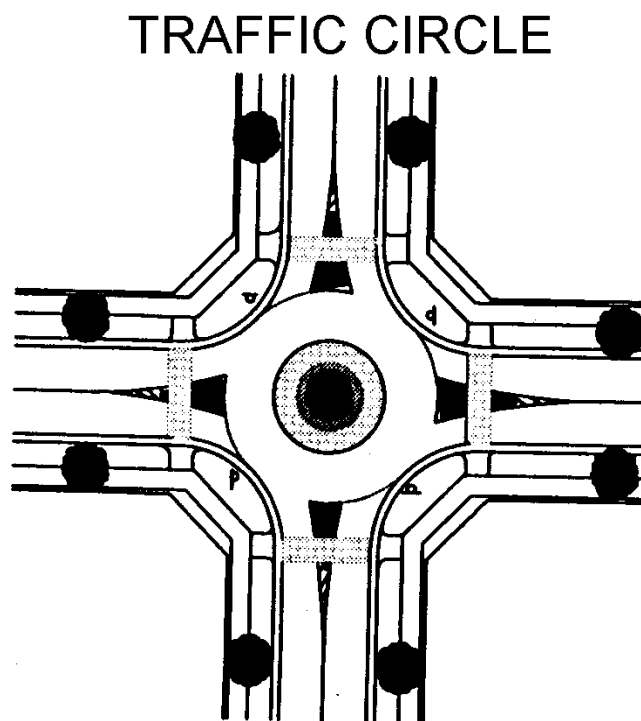
#### Emergency Services Impacts

When intersection hump designs are selected for any street, one should consider whether it is used as a primary response route. Intersection humps may cause difficulty with the turning radii of large vehicles.

#### Other Considerations

Intersection humps should not be considered on grades of eight percent or greater. Intersection hump may also pose challenges with surface water management.

### Neighborhood Traffic Circles (Mini Roundabouts)





#### Description

Traffic circles or roundabouts consist of a landscaped island in the center of the intersection with appropriate signage and marking. A driver enters a traffic circle by turning right, after yielding to any traffic coming from the left. All turns from a roadway intersection that has a traffic circle are right in, right-out.

#### Advantages

- Increase operational safety by reducing the number of conflicting movements
- Reduce speeds in the intersection
- Cannot be ignored like an intersection controlled by stop signs
- May improve intersection capacity and operation
- Accommodates intersections with a wide range of access points (i.e. three to five way intersections) and can include driveways in the intersection

#### Disadvantages

- Provides a potential obstruction for collision
- Maintenance costs increase over all-way stop due to increased landscaping and/or pavement

#### Transit Service Impacts

Traffic circles can be designed such that buses can navigate left turns by going the wrong way through a traffic circle. On roads with high average daily traffic that would make such maneuvers infeasible, traffic circles should be designed large enough for buses to navigate.

#### Emergency Services Impacts

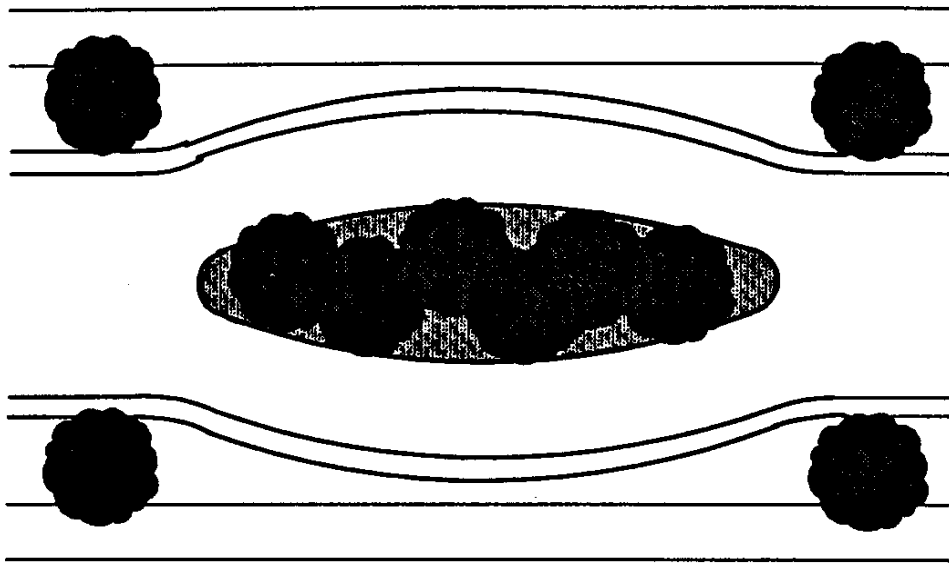
Traffic circles can be designed such that emergency service vehicles can navigate left turns by going the wrong way through a traffic circle. On roads with high average daily traffic that would make such maneuvers infeasible, traffic circles should be designed large enough for emergency service vehicles to navigate.



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Splitters (short median)

## SPLITTER



### Description

Splitter islands divert traffic laterally, often narrowing the roadway, while providing one-way flow for short intervals. Splitters are frequently landscaped for aesthetic appeal.

### Primary Purpose

Reduce though traffic speeds.

### Advantages

- Reduce speeds on roadways through lateral deflection and roadway narrowing
- Provide areas for landscaping and improving the aesthetic value of the neighborhood
- Provide locations for safer mid-block pedestrian crossings
- Allowable on grades of eight percent or higher

### Disadvantages

- Create obstructions for potential collision
- Maintenance costs increase due to increased landscaping and/or pavement

### Transit Service Impacts

There is no significant impact to transit services.

### Emergency Services Impacts





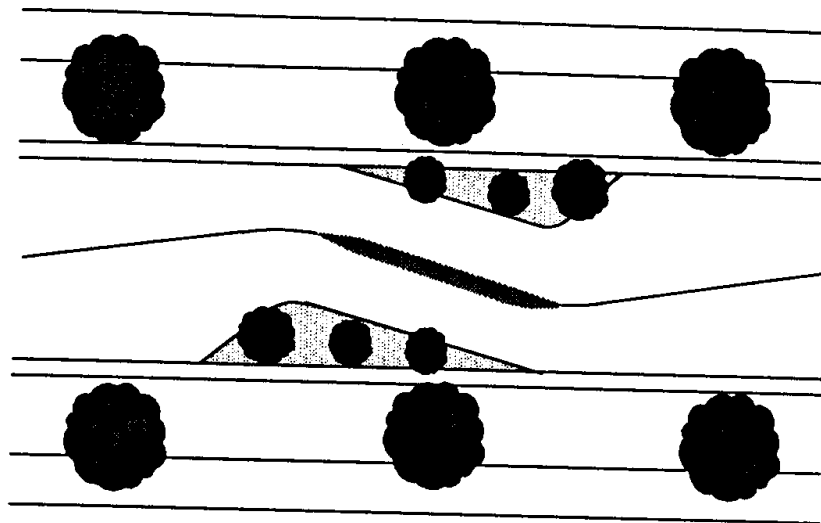
There is no significant impact to emergency services.

#### Other Considerations

- Driveways with access directly to the splitter are not allowable. If there is hardship in the placement of splitters due to driveway locations, chicanes could be considered instead.
- Installation of a splitter island requires modifying the adjacent property. While this work can usually be done within the right of way, it impacts perceived property.
- Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs.

#### **Chicanes (deflectors)**

### CHICANES



#### Description

Chicanes change the physical characteristics of a roadway section from an existing straight alignment to a series of horizontal curves, causing horizontal displacement of the vehicle.

#### Primary Purpose

Reduce vehicle speeds by providing horizontal deflection and a narrowed vehicle travel path, as well as potentially reducing sight distance that is too great for desired speed

#### Advantages

- Reduce vehicle speeds with less impact on emergency service vehicles
- Pose no restrictions for bicycle
- Allowable on grades of eight percent or higher



#### Disadvantages

- Existing driveways can limit placement
- Create obstructions for potential collision
- Maintenance costs increase due to increased landscaping and pavement
- May pose challenges with surface water management

#### Transit Service Impacts

There is no significant impact to transit services.

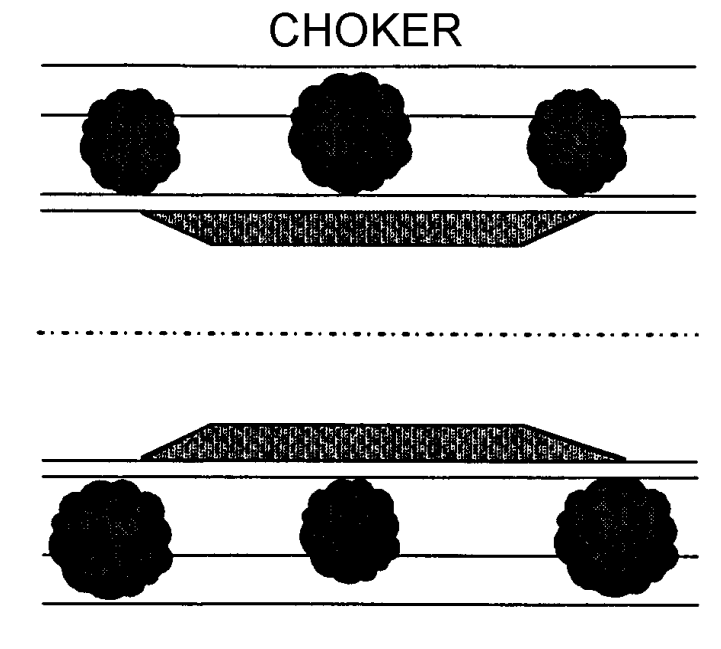
#### Emergency Services Impacts

There is no significant impact to emergency services.

#### Other Considerations

Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs.

### **Chokers (neck-downs)**



#### Description

Chokers narrow a street at an intersection or mid-block by construction of a wider sidewalk, landscape strip, or gateway treatment. Alternatively, lanes can be reduced to 10' by moving the curb lines.



### Primary Purpose

Reduce vehicle speeds by providing horizontal deflection and a narrowed vehicle travel path, as well as potentially reducing sight distance that is too great for desired speed.

### Advantages

- Reduce vehicle speeds with less impact on emergency service vehicles
- Provide shorter pedestrian crossing distances and better motorist-pedestrian visibility
- Discourage truck traffic
- Allowable on grades of eight percent or higher

### Disadvantages

- Existing driveways can limit placement
- Create obstruction for potential collision
- Potentially impede bicycle safety and mobility
- Maintenance costs increase due to increased landscaping and pavement
- May pose challenges with surface water management
- May result in the loss of curbside parking

### Transit Service Impacts

There is no significant impact to transit services.

### Emergency Services Impacts

There is no significant impact to emergency services.

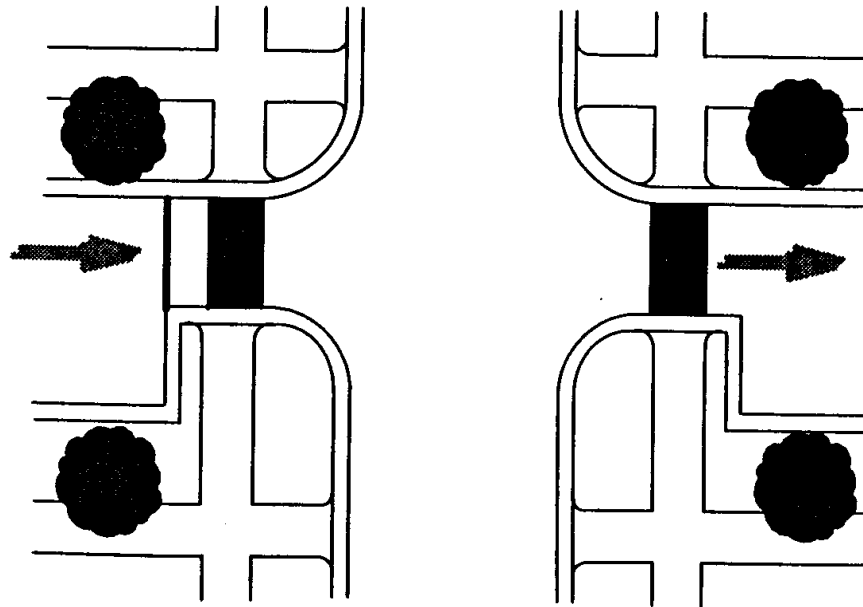
### Other Considerations

Visibility of the device should be optimized through the use of raised pavement markers, striping, and signs



Exit-only/one way entry treatment

## ONE-WAY ENTRY AND EXIT



### Description

Similar to a choker, this treatment restricts the intersection such that either entry or exit movements are allowed, but not both.

### Primary Purpose

More effectively manage traffic patterns within a neighborhood.

### Advantages

- Reduce the number of conflicting movements in that intersection
- Reduce the need for future installation of traffic signals
- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection
- Do not create dead-end streets, making routes more direct, compared to road closures
- Reduce motorist speeds
- Alternative to a one-way street designation that allows residents within the block to continue to use the street for two-way travel

### Disadvantages



- May relocate traffic to other locations where the desired movement opportunities exist
- May inconvenience local residents who may be forced to drive longer, more circuitous routes to reach their destination
- Maintenance costs increase due to increased landscaping and/or pavement
- Easy to violate because they only block half the intersection

#### Transit Service Impacts

To minimize the negative effect transit routes should be planned to accommodate barriers. However, they should not be placed at any location where transit service performs a relevant turning movement.

#### Emergency Services Impacts

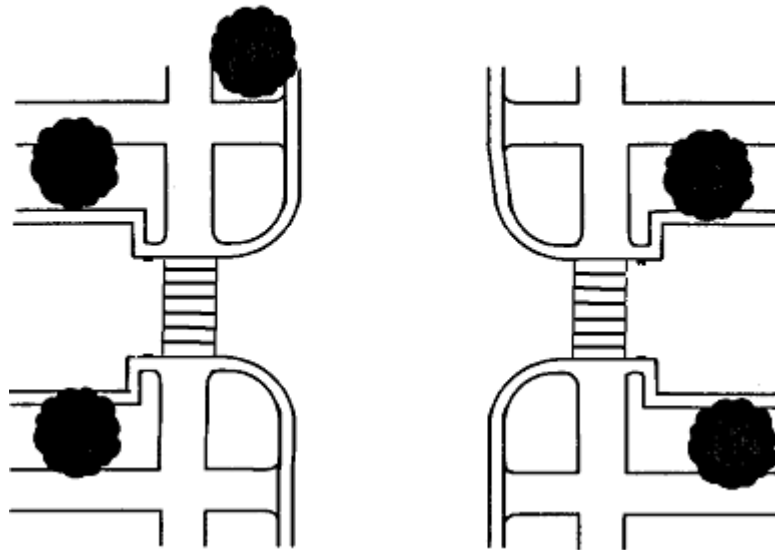
There is no significant impact to emergency services.

#### Other Considerations

These treatments should be planned considering the impact on overall traffic patterns in the area. Storm water drainage can be a significant consideration.

### **Curb extensions**

## **CURB EXTENSIONS**



#### Description

Curb extensions narrow the roadway to make pedestrian crossing faster and safer. They can be installed either at intersections or mid-block.





### Primary Purpose

Improve pedestrian safety by reducing the street crossing distance and increasing sight distance. Curb extensions are similar to chokers (neck-downs) and chicanes, but their primary purposes differ.

### Advantages

- Reduce pedestrian crossing distance and time
- Make pedestrian crossing points more visible to drivers
- Prevent vehicles from passing other vehicles that are turning at an intersection
- Provide transition from a through lane to on street parking, dependant upon road width
- Visually enhance the street through landscaping or textured treatment

### Disadvantages

- May reduce the amount of on-street parking
- Makes accommodating full bicycle lanes difficult

### Transit Service Impacts

Enhance service by moving the curb so riders step directly between the sidewalk and bus door.

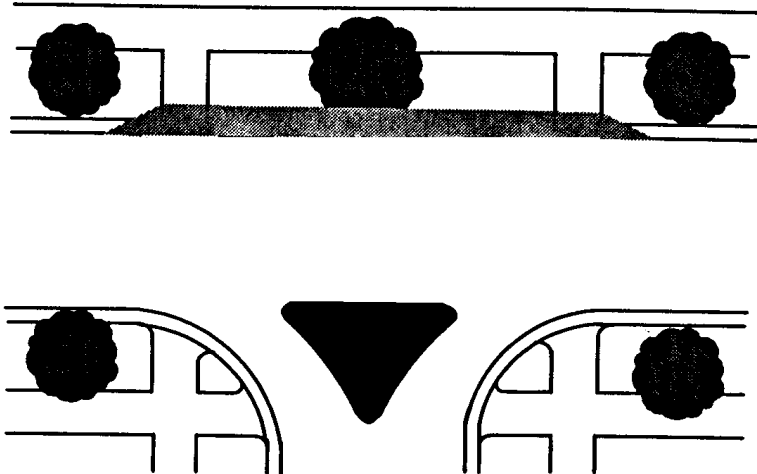
### Emergency Services Impacts

There is no significant impact to emergency services.



## Modified Intersections

### MODIFIED INTERSECTION



#### Description

Barriers that restrict movement may be located at problem intersections. Pictured above is a right-in, right-out intersection that restricts all left turn movements to and from the minor road. Other possibilities include increasing or decreasing the curb radii to encourage different turning speeds at the intersection.

#### Primary Purpose

Control traffic flow through neighborhoods.

#### Advantages

- Improve safety by reducing the number of conflicting movements in that intersection
- Reduce local street volumes
- Reduce the need for future traffic control
- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection
- Reduce the speeds at intersections

#### Disadvantages

- May relocate traffic to other locations where turning opportunities exist
- May inconvenience local residents who are forced to drive longer, more circuitous routes to reach their destination
- Maintenance costs increase due to increased landscaping and/or pavement

#### Transit Service Impacts



To minimize the negative effect, transit routes should be planned to accommodate modified intersections. They should not be placed at any location where transit service performs a relevant turning movement.

#### Emergency Services Impacts

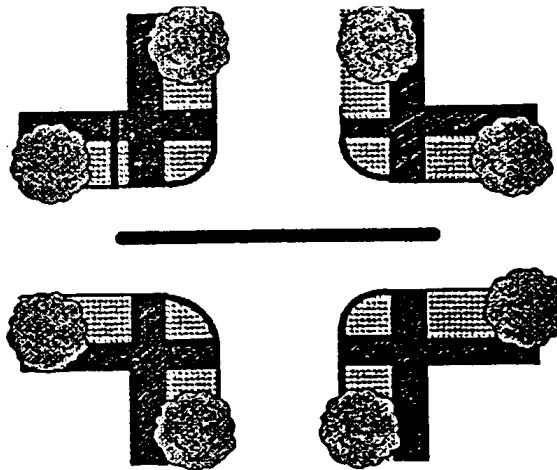
Even though these barriers would restrict turns for emergency vehicles, they can be designed and installed to provide for emergency access. If desired, the modification can be constructed with breakaway posts and striping, which would allow emergency services while strongly discouraging the target movements.

#### Other Considerations

Striping is easily violated.

### **Median Barriers**

#### **MEDIAN BARRIER**



#### Description

Provide a physical barrier on the major street at an intersection that can effectively eliminate left turns from the major street onto the minor street as well as eliminate minor street straight-through traffic and left turn traffic across the major street. Median barriers usually consist of a concrete curbed island with a decorative landscaping and/or surface treatment.

#### Primary Purpose

Restrict traffic flow

#### Advantages

- Improve safety by reducing the number of conflicting movements in that intersection
- Reduce local street volumes
- Negate the need for future traffic signals



- Restrict vehicular access while retaining bicycle and pedestrian access
- Provide safer areas for pedestrians to cross the intersection

### Disadvantages

- May relocate traffic to other locations where left-turn opportunities exist
- May inconvenience local residents who may be forced to drive longer, more circuitous routes to reach their destination
- Maintenance costs increase due to increased landscaping and/or pavement

### Transit Service Impacts

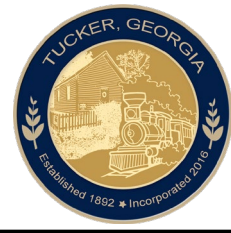
To minimize the negative effect, transit routes should be planned to accommodate median barriers. They should not be placed at any location where transit service performs a relevant turning movement.

### Emergency Services Impacts

Even though median barriers would restrict turns for emergency vehicles, they can be designed and installed to provide for emergency access. If desired, the median can be constructed with breakaway posts and striping or roll back/mountable curbing, which would allow emergency services while strongly discouraging left turns.

### Other Considerations

A full median with no breaks can also be used to prohibit all left turns.



## **APPENDIX B – SAMPLE PETITION LETTER AND FORMS**





## Appendix B – Sample Petition Letter and Forms

Sample petition forms follow. The petition forms include multiple signatures and could be carried around by volunteers, mailed/distributed to each household or kept in a central location. Neighborhoods have had success with multiple distribution methods, and Public Works staff is available to offer advice and suggestions.

All petitions submitted must have certain features. Most importantly, the property owner(s) must clearly indicate they are in favor of traffic calming devices on the neighborhood streets. The street address of the property should be indicated, along with printed name(s) of the owner. Please note that all listed property owners must sign the petition or a 'no' vote will be recorded for the property.

Submitted petitions should include a cover letter from the neighborhood coordinator attesting that all signatures are correct and valid to the best of their knowledge. The letter should also specify that the petition supports the type of and number of traffic calming devices proposed by Public Works as the suggested solutions.



City of  
Tucker

City of Tucker  
Traffic Calming Program

Date: \_\_\_\_\_

Street Name	
<input type="checkbox"/> Initial Petition <input type="checkbox"/> Final Petition	
PROPOSED TRAFFIC CALMING MEASURES:	
STREETS IN AFFECTED AREA:	
NUMBER OF LOTS IN AFFECTED AREA	
EXPIRATION DATE	
ANNUAL MAINTENANCE COST PER PROPERTY OWNER	

**CITY OF TUCKER**  
**TRAFFIC CALMING**  
**TRAFFIC CALMING PETITION AND COVER LETTER**

The objective of the City of Tucker Traffic Calming Program is to provide property owners a means of addressing speeding related problems in their communities. This petition provides that opportunity for the established affected area. The City's program provides a process by which traffic calming measures such as speed tables, bike lanes, center traffic islands, splitter islands, and striping can be implemented on public, neighborhood subdivision streets. Engineering studies must support the desired results and **75%** or more of the affected property owners must favor the installation.

**THE PETITION PROCESS**

To have Speed Tables or a combination of other active traffic calming measures installed in a City of Tucker neighborhood, a completed petition must be submitted to the City of Tucker Public Works. All affected owners of real property within the affected area should be contacted by the neighborhood coordinator and given an opportunity to sign this petition indicating a **yes** or **no** response to traffic calming. **ALL PROPERTY OWNERS OF RECORD MUST SIGN THE PETITION** (a **Mr. & Mrs.** signature is not acceptable; owners must sign individually). If a change in ownership has occurred, such as a change in title or death the City may require additional documentation. Signatures of rental tenants are not an acceptable substitute for the signatures of the owners of record.

Witness signatures are required to verify property owners' signatures. The determining percentage will be calculated based on individual lots where owners sign affirmatively, divided by the total number of lots in the **Affected Area**. **For subdivisions not completely built out**, a minimum of **90%** of the total units must be occupied before a petition for the installation of speed tables will be considered.

**Removal of Previously Installed Traffic Calming Measures** can proceed if the City is presented a petition requesting removal. At least **75%** of the property owners must vote in favor of removal. Rules governing the signing of the petition and procedure for calculating approval percentages are the same as those used in the installation approval process. Such a petition for removal will only be considered after a period of at least **one year** after installation.

Completed petitions must be signed, witnessed, and returned to this office where signatures will be verified using tax records. Petitioners will have **90 calendar days** from the date of the announced proposal to submit the petition; otherwise the proposal will be automatically rejected. Petitions meeting verification and qualification requirements will be presented to the City Council. A public hearing will be announced and the City Council will approve or disapprove all qualifying petitions at that time.

**ADDITIONAL INFORMATION**

The installation of traffic calming measures will not be considered final until the measures are inspected by Public Works for compliance with design specifications. Annual maintenance charges will be added to the property tax bills at the end of the year in which the measures are installed. Each platted lot in the affected area, whether developed or not, will be subject to the assessed charges. A yes or no vote can **NOT** be changed, removed, or altered after the petition has been received or stamped by the City.

**INFORMATION CONTAINED ON THIS PETITION MAY BE SUBJECT TO DISCLOSURE IN ACCORDANCE WITH THE OPEN RECORDS LAW, O.C.G.A. CODE SECTION 50-18-70.**

RETURN COMPLETED PETITIONS TO:	City of Tucker Public Works Department 1795 Lakeside Parkway, Suite 350 Tucker, GA 30384
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## **CITY OF TUCKER TRAFFIC CALMING INITIAL PETITION**

**Subdivision/Street:** \_\_\_\_\_

**Initial Petition Deadline:** \_\_\_\_\_

The undersigned property owners understand the purpose of this petition and hereby request that a speed study be conducted to determine whether or not this neighborhood and/or street is eligible for traffic calming measures according to the criteria defined in the City's latest Traffic Calming Policy. It is further understood that additional requirements must be met prior to the establishment of a Traffic Calming District as further described in the City's Traffic Calming Policy. It is also understood that the signatures shown do not necessarily signify the support of any particular traffic calming measures that may be proposed during the Traffic Calming Process.

01. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

02. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

03. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_



Subdivision/Street: \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_



**CITY OF TUCKER TRAFFIC CALMING FINAL PETITION**

Subdivision/Street: \_\_\_\_\_

Final Petition Deadline: \_\_\_\_\_

The undersigned property owners understand the purpose of this petition and hereby accept or reject, as indicated herein, the proposed design concept for traffic calming measures. It is further understood that an acceptance of 65% or more of property owners in the affected area on this petition, indicated by the number of “Yes” votes, signifies approval for the City of Tucker to establish a Traffic Calming District and install the proposed traffic calming measures. This authorizes the City to assess annual maintenance charges to all property designated to be in the “Affected Area” upon approval by the City Council.

01. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

02. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

03. Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

Subdivision/Street: \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

\_\_\_\_ Do you support traffic calming in your neighborhood/street? Yes or No (Circle One)

Owner(s) Print Name \_\_\_\_\_ Print Name \_\_\_\_\_

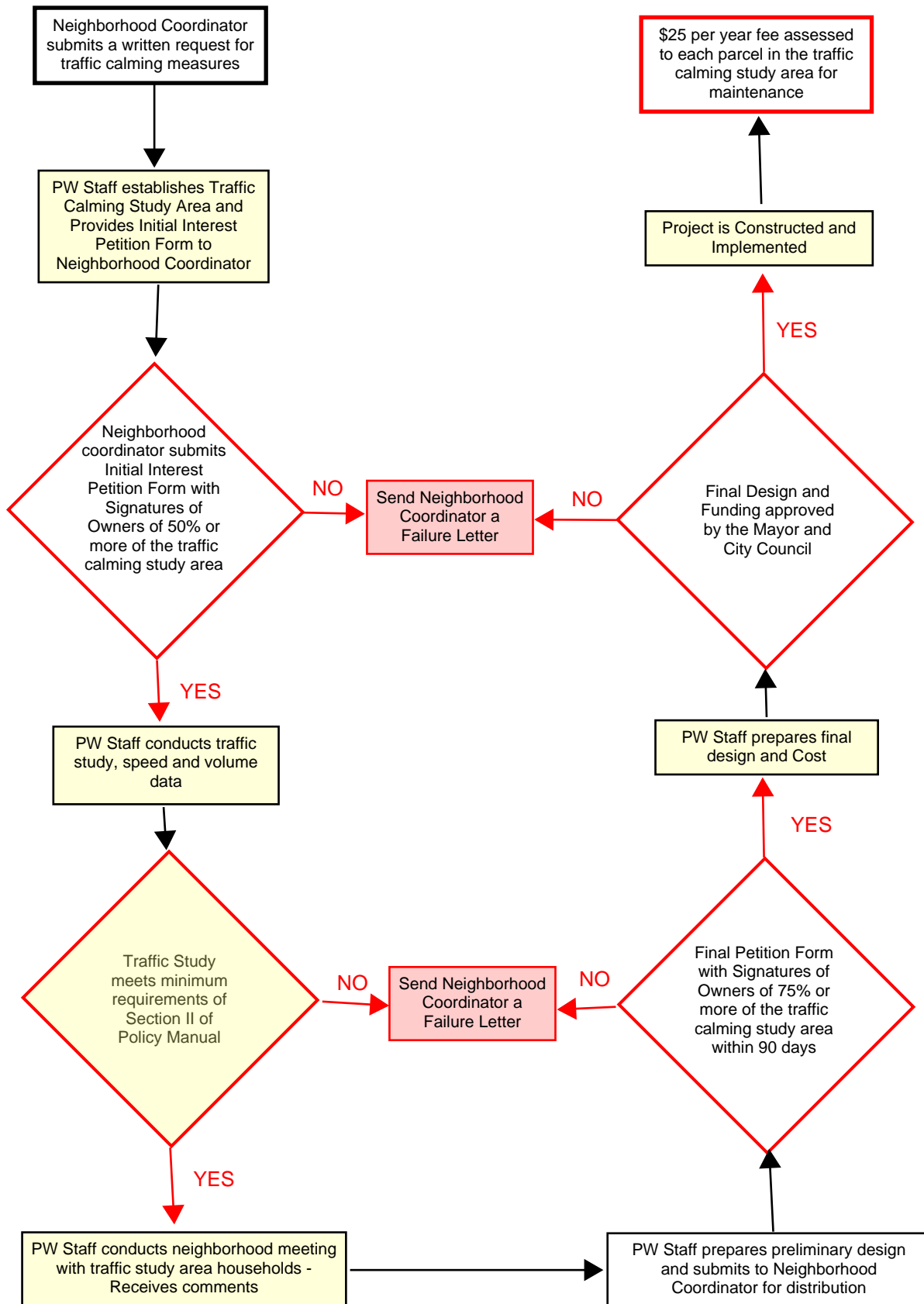
Street Address \_\_\_\_\_

Phone Number \_\_\_\_\_ (cell) \_\_\_\_\_

Signature(s) \_\_\_\_\_

Witness \_\_\_\_\_

# CITY OF TUCKER TRAFFIC CALMING PROCESS FLOW CHART





## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ken Hildebrandt, City Engineer  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for Juliette Road Median Landscaping

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### Description for on the Agenda:

Bid Award for Juliette Road Median Landscaping

### Issue:

Award for ITB #2023-029: Juliette Road Median Landscaping

### Recommendation:

Staff recommends that the bid be awarded to Visionscapes, Inc. in the amount of \$67,754.35.

### Background:

In an effort to beautify the Juliette Road area, the center median will be completely replanted with a combination of trees, shrubs, and groundcover.

### Summary:

Seven bids were received:

Sweet City Landscape	\$204,058.67
Visionscapes	\$67,754.35
Tri Scapes	\$133,344.01
Ed Castro Landscapes	\$164,471.76
Ga. Green Landscapes	\$175,375.30
Yellowstone Landscape	\$191,066.84
Crabapple Turf Mgt.	\$101,594.22

### Financial Impact:

\$67,754.35 will be funded from the Juliette Road Improvements Project in the Capital account (CE2304, GL # 300-4100-54.14000).



**CONTRACT AGREEMENT**  
**ITB #2023-029 JULIETTE ROAD MEDIAN LANDSCAPING**

This Agreement made and entered into this 13<sup>th</sup> day of November in the year 2023; by and between the City of Tucker, Georgia, having its principal place of business at 1975 Lakeside Pkwy Suite 350, Tucker, Georgia 30084 and Visionscapes, Inc. ("Contractor"), located at 1767 Fellowship Road, Tucker, Georgia 30084.

WHEREAS, the City of Tucker is charged with the responsibility for the establishment of contracts for the acquisition of goods, materials, supplies and equipment, and services by the various departments of the City of Tucker; and

WHEREAS, the City of Tucker has caused Invitation to Bid #2023-029 to be issued soliciting bids from qualified Contractors to furnish all items, labor services, materials and appurtenances called for by them in accordance with these specifications. Selected ("Contractor") is required to provide the services as called for in the specifications; and

WHEREAS, the Contractor submitted a bid in response to ITB #2023-029; and

WHEREAS, the Contractor's bid was deemed by the City to be the lowest reliable bid per the scope of services; and

NOW THEREFORE, in consideration of the mutual covenant and promises contained herein, the parties agree as follows:

## **1.0 Scope of Work**

That the Contractor has agreed and by these present does agree with the City to furnish all equipment, tools, materials, skill, labor of every description, and all things necessary to carry out as delineated in "Exhibit A" (Scope of Services) and complete in a good, firm, substantial and workmanlike manner, the Work in strict conformity with the specifications which shall form an essential part of this agreement. In addition to the foregoing, and notwithstanding anything to the contrary stated herein, the following terms and conditions, amendments, and other documents are incorporated by reference and made a part of the terms and conditions of this Agreement as is fully set out herein:

**EXHIBIT A - SCOPE OF SERVICE**

**EXHIBIT B - COST PROPOSAL**

**EXHIBIT C- W-9**

**EXHIBIT D - CERTIFICATE OF INSURANCE**

**EXHIBIT E – E-VERIFY AFFIDAVIT**



**EXHIBIT F- CONTACT INFORMATION**

**EXHIBIT G - ADDENDUMS**

**EXHIBIT I – PERFORMANCE AND PAYMENT BONDS (if applicable)**

**2.0 Key Personnel**

The City of Tucker enters into this Agreement having relied upon Contractor's providing the services of the Key Personnel, if any, identified as such in the body of the Agreement. No Key Personnel may be replaced or transferred without the prior approval of the City's authorized representative. Any Contractor personnel to whom the City objects shall be removed from City work immediately. The City maintains the right to approve in its sole discretion all personnel assigned to the work under this Agreement.

**3.0 Compensation**

**3.1.** Pricing. The Contractor will be paid for the goods and services sold pursuant to the Contract in accordance with the bid and final pricing documents as incorporated into the terms of the Contract. All prices are firm and fixed and are not subject to variation. The prices quoted and listed on the attached Cost Proposal, a copy of which is attached hereto as Exhibit "B" (Cost Proposal) and incorporated herein, shall be firm throughout the term of this Contract. The maximum costs owed by the City, unless otherwise agreed to in writing, shall not exceed \$67,754.35.

Billings. If applicable, the Contractor shall submit, on a regular basis, an invoice for goods and services supplied to the City under the Contract at the billing address specified in the Purchase Instrument or Contract. The invoice shall comply with all applicable rules concerning payment of such claims. The City shall pay all approved invoices in arrears and in accordance with applicable provisions of City law. Unless otherwise agreed in writing by the parties, the Contractor shall not be entitled to receive any other payment or compensation from the City for any goods or services provided by or on behalf of the Contractor under the Contract. The Contractor shall be solely responsible for paying all costs, expenses, and charges it incurs in connection with its performance under the Contract.

Invoices are to be emailed to [invoice@tuckerga.gov](mailto:invoice@tuckerga.gov) and must reference the PO# (see top of contract). A W-9 Request for Taxpayer Identification Number and Certification Form must be submitted "Exhibit C" (W-9).

**3.2.** Delay of Payment Due to Contractor's Failure. If the City in good faith determines that the Contractor has failed to perform or deliver any service or product as required by the Contract, the Contractor shall not be entitled to any compensation under the Contract until such service or product is performed or delivered. In this event, the City may withhold that portion of the Contractor's compensation which represents payment for services or products that were not performed or delivered. To the extent that the Contractor's failure to perform or deliver in a timely manner causes the City to incur costs, the City may deduct the amount of such incurred costs from any amounts payable to Contractor. The City's authority to deduct such incurred costs shall not in any way affect the City's authority to terminate the Contract.

- 3.3.** Set-Off Against Sums Owed by the Contractor. If the Contractor owes the City any sum under the terms of the Contract, pursuant to any judgment, or pursuant to any law, the City may set off the sum owed to the City against any sum owed by the City to the Contractor in the City's sole discretion.

#### **4.0 Duration of Contract**

- 4.1.** Contract Term. The Contract between the City and the Contractor shall begin and end on the dates specified, unless terminated earlier in accordance with the applicable terms and conditions. Pursuant to O.C.G.A. Section 36-60-13, this Contract shall not be deemed to create a debt of the City for the payment of any sum beyond the fiscal year of execution. The terms of this contract shall align with the City's fiscal year from July 1 to June 30 and shall be from commencement of services until all services are rendered. All invoices postmarked by the City during said term shall be filled at the contract price.
- 4.2.** Contract Extension. If this Standard Contract shall terminate or be likely to terminate prior to the making of an award for a new contract for the identified goods and ancillary services, the City may, with the written consent of Contractor, extend this Contract for such period as may be necessary to afford the City a continuous supply of the identified goods and ancillary services.

If not set forth in the Contractor's submittal, the City will determine the basic period of performance for the completion of any of Contractor's actions contemplated within the scope of this Agreement and notify Contractor of the same via written notice. If no specific period for the completion of Contractor's required actions pursuant to this Agreement is set out in writing, such period shall be a reasonable period based upon the nature of the activity. If the completion of this Contract is delayed by actions of the City, then and in such event the time of completion of this Contract shall be extended for such additional time within which to complete the performance of the Contract as is required by such delay.

This Contract may be extended by mutual consent of both the City and the Contractor for reasons of additional time, additional services and/or additional areas of work.

#### **5.0 Independent Contractor**

- 5.1.** The Contractor shall be an independent Contractor. The Contractor is not an employee, agent, or representative of the City of Tucker. The successful Contractor shall obtain and maintain, at the Contractor's expense, all permits, license, or approvals that may be necessary for the performance of the services. The Contractor shall furnish copies of all such permits, licenses, or approvals to the City of Tucker Representative within ten (10) day after issuance.
- 5.2.** Inasmuch as the City of Tucker and the Contractor are independent of one another neither has the authority to bind the other to any third person or otherwise to act in any way as the representative of the other, unless otherwise expressly agreed to in writing signed by both parties hereto. The Contractor agrees not to represent itself as the City's agent for any purpose to any party or to allow any employee of the Contractor to do so, unless specifically authorized, in advance and in writing, to do so, and then only for the limited purpose stated in such authorization. The Contractor shall assume full liability for any contracts or agreements the Contractor enters into on behalf of the City of Tucker without the express knowledge and prior written consent of the City.

## **6.0 Indemnification**

- 6.1 The Contractor agrees to indemnify, hold harmless and defend the City, its public officials, officers, employees, and agents from and against any and all liabilities, suits, actions, legal proceedings, claims, demands, damages, costs and expenses (including reasonable attorney's fees) to the extent rising out of any act or omission of the Contractor, its agents, subcontractors or employees in the performance of this Contract except for such claims that arise from the City's sole negligence or willful misconduct.
- 6.2 Notwithstanding the foregoing indemnification clause, the City may join in the defense of any claims raised against it in the sole discretion of the City. Additionally, if any claim is raised against the City, said claim(s) cannot be settled or compromised without the City's written consent, which shall not be unreasonably withheld.

## **7.0 Performance**

Performance will be evaluated monthly. If requirements are not met, the City of Tucker will notify the Contractor in writing stating deficiencies, substitutions, delivery schedule, and/or poor workmanship.

A written response from the Contractor detailing how correction(s) will be made is required to be delivered to the City. The Contractor will have thirty (30) days to remedy the situation. If requirements are not remedied City of Tucker has the right to cancel this Agreement with no additional obligation to Contractor.

### **7.1 Final Completion, Acceptance, and Payment**

- i. Final Completion shall be achieved when the work is fully and finally complete in accordance with the Contract Documents. The City shall notify the Contractor once the date of final completion has been achieved in writing.
- ii. Final Acceptance is the formal action of the City acknowledging Final Completion. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City's right under any warranty or guarantee. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents submit to the City a Notice of any outstanding disputes or claims between the Contractor and any of its subcontractors, including the amounts and other details thereof. Neither Final Acceptance nor final payment shall release the Contractor or its sureties from any obligations of these Contract Documents or the bond or constitute a waiver of any claims by City arising Contractor's failure to perform the work in accordance with the Contract Documents.
- iii. Acceptance of final payment by the Contractor, or any subcontractor, shall constitute a waiver and release to City of all claims by Contractor, or any such subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of City relating to or arising out of the work, except for those Claims made in accordance

with the procedures, including the time limits, set forth in section 8.

## **8.0 Changes**

City, within the general scope of the Agreement, may, by written notice to Contractor, issue additional instructions, require additional services or direct the omission of services covered by this Agreement. In such an event, there will be made an equitable adjustment in price, but any claim for such an adjustment must be made within thirty (30) days of the receipt of said written notice.

## **9.0 Change Order Defined**

Change order shall mean a written order to the Contractor executed by the City issued after the execution of this Agreement, authorizing and directing a change in services. The Price and Time may be changed only by a Change Order.

## **10.0 Insurance**

- 10.1 The Contractor shall, at its own cost and expense, obtain and maintain worker's compensation and commercial general liability insurance coverage covering the period of this Agreement, such insurance to be obtained from a responsible insurance company legally licensed and authorized to transact business in the State of Georgia. The minimum limit for Worker's Compensation Insurance shall be the statutory limit for such insurance. The minimum limits for commercial general liability insurance, which must include personal liability coverage, will be \$1,000,000 per person and \$3,000,000 per occurrence for bodily injury and \$500,000 per occurrence for property damage.
- 10.2 Contractor shall provide certificates of insurance evidencing the coverage requested herein before the execution of this agreement, and at any time during the term of this Agreement, upon the request of the City, Contractor shall provide proof sufficient to the satisfaction of the City that such insurance continues in force and effect. "Exhibit D" (Certificate of Insurance).

## **11.0 Termination**

- 11.1. Immediate Termination. Pursuant to O.C.G.A. Section 36-60-13, this Contract will terminate immediately and absolutely if the City determines that adequate funds are not appropriated or granted or funds are de-appropriated such that the City cannot fulfill its obligations under the Contract, which determination is at the City's sole discretion and shall be conclusive. Further, the City may terminate the Contract for any one or more of the following reasons effective immediately without advance notice:
  - (i) In the event the Contractor is required to be certified or licensed as a condition precedent to providing goods and services, the revocation or loss of such license or certification may result in immediate termination of the Contract effective as of the date on which the license or certification is no longer in effect;
  - (ii) The City determines that the actions, or failure to act, of the Contractor, its agents, employees, or subcontractors have caused, or reasonably could cause, life, health or

safety to be jeopardized;

- (iii) The Contractor fails to comply with confidentiality laws or provisions; and/or
- (iv) The Contractor furnished any statement, representation or certification which is materially false, deceptive, incorrect, or incomplete.

11.2. Termination for Cause. The occurrence of any one or more of the following events shall constitute cause or the City to declare the Contractor in default of its obligations under the Contract:

- (i) The Contractor fails to deliver or has delivered nonconforming goods or services or fails to perform to the City's satisfaction, any material requirement of the Contract or is in violation of a material provision of the Contract, including, but without limitation, the express warranties made by the Contractor;
- (ii) The City determines that satisfactory performance of the Contract is substantially endangered or that a default is likely to occur;
- (iii) The Contractor fails to make substantial and timely progress toward performance of the contract;
- (iv) The Contractor becomes subject to any bankruptcy or insolvency proceeding under federal or state law to the extent allowed by applicable federal or state law including bankruptcy laws; the Contractor terminates or suspends its business; or the City reasonably believes that the Contractor has become insolvent or unable to pay its obligations as they accrue consistent with applicable federal or state law;
- (v) The Contractor has failed to comply with applicable federal, state and local laws, rules, ordinances, regulations and orders when performing within the scope of the Contract;
- (vi) The Contractor has engaged in conduct that has or may expose the City to liability, as determined in the City's sole discretion; or
- (vii) The Contractor has infringed any patent, trademark, copyright, trade dress or any other intellectual property rights of the State, the City, or a third party.

11.3. Notice of Default. If there is a default event caused by the Contractor, the City shall provide written notice to the Contractor requesting that the breach or noncompliance be remedied within the period specified in the City's written notice to the Contractor. If the breach or noncompliance is not remedied by the date of the written notice, the City may:

- (i) Immediately terminate the Contract without additional written notice; and/or
- (ii) Procure substitute goods or services from another source and charge the difference between the Contract and the substitute contract to the defaulting Contractor; and/or,
- (iii) Enforce the terms and conditions of the Contract and seek any legal or equitable



remedies.

- 11.4. Termination for Convenience. The City may terminate this Agreement for convenience at any time upon thirty (30) day written notice to the Contractor. In the event of termination for convenience, the Contractor shall take immediate steps to terminate work as quickly and effectively as possible and shall terminate all commitments to third parties unless otherwise instructed by the City. Provided that no damages are due to the City for the Contractor's failure to perform in accordance with this Agreement, the City shall pay the Contractor for work performed to date in accordance with Section 7 herein. The City shall have no further liability to the Contractor for such termination.
- 11.5. Payment Limitation in the event of Termination. In the event of termination of the Contract for any reason by the City, the City shall pay only those amounts, if any, due and owing to the Contractor goods and services rendered up to and including the date of termination of the Contract and for which the City is obligated to pay pursuant to the Contract or Purchase Instrument. Payment will be made only upon submission of invoices and proper proof of the Contractor's claim. This provision in no way limits the remedies available to the City under the Contract in the event of termination. The City shall not be liable for any costs incurred by the Contractor in its performance of the Contract, including, but not limited to, startup costs, overhead or other costs associated with the performance of the Contract.
- 11.6. The Contractor's Termination Duties. Upon receipt of notice of termination or upon request of the City, the Contractor shall:
- (i) Cease work under the Contract and take all necessary or appropriate steps to limit disbursements and minimize costs, and furnish a report within thirty (30) days of the date of notice of termination, describing the status of all work under the Contract, including, without limitation, results accomplished, conclusions resulting therefrom, and any other matters the City may require;
  - (ii) Immediately cease using and return to the City, any personal property or materials, whether tangible or intangible, provided by the City to the Contractor;
  - (iii) Comply with the City's instructions for the timely transfer of any active files and work product produced by the Contractor under the Contract;
  - (iv) Cooperate in good faith with the City, its employees, agents, and Contractors during the transition period between the notification of termination and the substitution of any replacement Contractor; and
  - (v) Immediately return to the City any payments made by the City for goods and services that were not delivered or rendered by the Contractor.

## **12.0 Claims and Dispute Resolution**

### **12.1 Claims Procedure**

- (i) If the parties fail to reach agreement regarding any dispute arising from the Contract

Documents, including a failure to reach agreement on the terms of any Change Order for City- directed work as provided in section 8, or on the resolution of any request for an equitable adjustment in the Contract Sum or the Contract Time, the Contractor's only remedy shall be to file a Claim with City as provided in this section.

- (ii) The Contractor shall file its Claim within the earlier of 120 Days from City's final instructions in accordance with section 8, or the date of Final Acceptance,
- (iii) The Claim shall be deemed to cover all changes in cost and time (including direct, indirect impact, and consequential) to which the Contractor may be entitled. It shall be fully substantiated and documented. The Claim shall contain a detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of work affected by the Claim.
- (iv) If an adjustment in the Contract Time is sought: the specific Days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and the Contractor's analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time.
- (v) If any adjustment in the Contract Sum is sought: the exact amount sought and a breakdown of that amount into the categories; and a statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of the Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which the Contractor believes the City is liable.
- (vi) After the Contractor has submitted a fully documented Claim, the City shall respond, in writing, to the Contractor with a decision within sixty (60) days of the date the Claim is received, or with notice to the Contractor of the date by which it will render its decision.

## 12.2 Arbitration

- i) If the Contractor disagrees with the City's decision rendered in accordance with section 12, the Contractor shall provide the City with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than thirty (30) Days after the date of City's decision on such Claim, failure to demand arbitration with said thirty (30) Day period shall result in City's decision being final and binding upon Contractor and its subcontractors,
- ii) Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provide to the City. The parties shall negotiate or mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service, before seeking arbitration in accordance with the Construction Industry Arbitration Rules of AAA as follows:
  - 1. Disputes involving \$30,000 or less shall be conducted in accordance with the Southeast Region Expedited Commercial Arbitration Rules; or

2. Disputes over \$30,000 shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA, unless the parties agree to use the expedited rules.
  - All Claims arising out of the work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the Superior Court of DeKalb County.
  - If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.
  - Choice of Law and Forum. The laws of the State of Georgia shall govern and determine all matters arising out of or in connection with this Contract without regard to the choice of law provisions of State law. The Superior Court of DeKalb County, Georgia shall have exclusive jurisdiction to try disputes arising under or by virtue of this contract. In the event any proceeding of a quasi-judicial or judicial nature is commenced in connection with this Contract, such proceeding shall solely be brought in a court or other forum of competent jurisdiction within DeKalb County, Georgia. This provision shall not be construed as waiving any immunity to suit or liability, including without limitation sovereign immunity, which may be available to the City.
  - All Claims filed against the City shall be subject to audit at any time following the filing of the Claim. Failure of the Contractor, or subcontractor of any tier, to maintain and retain sufficient records to allow the City to verify all or a portion of the Claim or to permit the City access to the books and records of the Contractor, or subcontractor of any tier, shall constitute a waiver of the Claim and shall bar any recovery.

### **13.0 Confidential Information**

- 13.1. Access to Confidential Data. The Contractor's employees, agents and subcontractors may have access to confidential data maintained by the City to the extent necessary to carry out the Contractor's responsibilities under the Contract. The Contractor shall presume that all information received pursuant to the Contract is confidential unless otherwise designated by the City. If it is reasonably likely the Contractor will have access to the City's confidential information, then:
  - (i) The Contractor shall provide to the City a written description of the Contractor's policies and procedures to safeguard confidential information;
  - (ii) Policies of confidentiality shall address, as appropriate, information conveyed in verbal, written, and electronic formats;

- (iii) The Contractor must designate one individual who shall remain the responsible authority in charge of all data collected, used, or disseminated by the Contractor in connection with the performance of the Contract; and
  - (iv) The Contractor shall provide adequate supervision and training to its agents, employees, and subcontractors to ensure compliance with the terms of the Contract. Private or confidential data shall always remain the property of the City. Some services performed for the City may require the Contractor to sign a nondisclosure agreement. The Contractor understands and agrees that refusal or failure to sign such a nondisclosure agreement, if required, may result in termination of the Contract.
- 13.2. No Dissemination of Confidential Data. No confidential data collected, maintained, or used during performance of the Contract shall be disseminated except as authorized by law and with the written consent of the City, either during the period of the Contract or thereafter. Any data supplied to or created by the Contractor shall be considered the property of the City. The Contractor must return all data collected, maintained, created or used in the course of the performance of the Contract, in whatever form it is maintained, promptly at the request of the City.
- 13.3. Subpoena. If a subpoena or other legal process is served upon the Contractor for records containing confidential information, the Contractor shall promptly notify the City and cooperate with the City in any lawful effort to protect the confidential information.
- 13.4. Reporting of Unauthorized Disclosure. The Contractor shall immediately report to the City any unauthorized disclosure of confidential information.
- 13.5. Survives Termination. The Contractor's confidentiality obligation under the Contract shall survive termination of the Contract.

#### **14.0 Inclusion of Documents**

The Contractor's documents submitted in response to any RFP or other solicitation from the City, including any best and final offer, are incorporated in this Agreement by reference and form an integral part of this agreement. In the event of a conflict in language between this Agreement and the foregoing documents incorporated herein, the provisions and requirements set forth in this Agreement shall govern. In the event of a conflict between the language of the RFP or other city solicitation, as amended, and the Contractor's submittal, the language in the former shall govern.

- 14.1 Counterparts: This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one and the same instrument.

#### **15.0 Compliance with All Laws and Licenses**

The Contractor must obtain all necessary licenses and comply with local, state, and federal requirements. The Contractor shall comply with all laws, rules and regulations of any governmental

entity pertaining to its performance under this Agreement.

## 15.1 Federal Requirements.

### 15.1.1 Federal Compliance Regulations

Federal regulations apply to all City of Tucker contracts using Federal funds as a source for the solicitation of goods and services. Successful bidders must comply with the following Federal requirement as they apply to:

1. Equal Employment Opportunity - The Contractor shall not discriminate against any employee or applicant or employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall comply with Executive Order 12466, as amended, and the rules, regulations, and orders of the Secretary of Labor.
2. Reports - The submission of reports to the City on behalf of the Federal Government as may be determined necessary for the activities covered by this contract;
3. Patents - The Federal Government reserves a royalty-free, nonexclusive, and irrevocable right to use, and to authorize others to use, for Federal Government purposes:
  - a. Any patent that shall result under this contract; and
  - b. Any patent rights to which the Contractor purchases ownership with grant support
4. Copyrights - The Federal Government reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:
  - a. The copyright in any work developed under this contract; and
  - b. Any rights of copyright to which the Contractor purchases ownership with grant support.
5. Access to books, documents, papers, and records of the Contractor which are directly pertinent to the specific contract for the purposes of making audit, examination, excerpts and transcriptions by Federal agencies, the Comptroller General of the United States, or any of their duly authorized representatives; and
6. Retention of all required records for three years after the City makes final payment and all other pending matters are closed.

## 15.2 Georgia Security and Immigration Compliance Act

- a. The parties certify that the Contractor has executed an affidavit verifying that the Contractor has registered and participates in the federal work authorization program to verify information of all new employees, per O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02. The appropriate affidavit is attached hereto as "Exhibit E" (E-Verify Form) and incorporated herein by reference and made a part of this contract.
- b. The Contractor further certifies that any subcontractor employed by the Contractor for the performance of this agreement has executed an appropriate subcontractor affidavit verifying its registration and participation in the federal work authorization program and compliance with O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02, and that all such affidavits are incorporated into and made a part of every contract between the Contractor and each subcontractor.
- c. The Contractor's compliance with O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02 is a material condition of this agreement and the Contractor's failure to comply with said provisions shall constitute a material breach of this agreement.

## 16.0 Assignment

The Contractor shall not assign or subcontract the whole or any part of this Agreement without the City of Tucker's prior written consent.

## 17.0 Amendments in Writing

No amendments to this Agreement shall be effective unless it is in writing and signed by duly authorized representatives of the parties.

## 18.0 Drug-Free and Smoke-Free Workplace

- 18.1 A drug-free and smoke-free workplace will be provided for the Contractor's employees during the performance of this Agreement; and
- 18.2 The Contractor will secure from any sub-Contractor hired to work in a drug-free and smoke-free work place a written certification so stating and in accordance with Paragraph 7, subsection B of the Official Code of Georgia Annotated Section 50-24-3.
- 18.3 The Contractor may be suspended, terminated, or debarred if it is determined that:
  - 18.3.1 The Contractor has made false certification herein; or
  - 18.3.2 The Contractor has violated such certification by failure to carry out the requirements of Official Code of Georgia Annotated Section 50-24-3.



## **19.0 Additional Terms**

Neither the City nor any Department shall be bound by any terms and conditions included in any Contractor packaging, Invoice, catalog, brochure, technical data sheet, or other document which attempts to impose any condition in variance with or in addition to the terms and conditions contained herein.

## **20.0 Antitrust Actions**

For good cause and as consideration for executing this Contract or placing this order, the Contractor acting herein by and through its duly authorized agent hereby conveys, sells, assigns, and transfers to the City of Tucker all rights, title, and interest to and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Georgia relating to the particular goods or services purchased or acquired by the City of Tucker pursuant hereto.

## **21.0 Reporting Requirement**

Reports shall be submitted to the Project Manager on a monthly basis providing, as a minimum, data regarding the number of items purchased as well as the total dollar volume of purchases made from this contract.

## **22.0 Governing Law**

This Agreement shall be governed in all respects by the laws of the State of Georgia. The Superior Court of DeKalb County, Georgia shall have exclusive jurisdiction to try disputes arising under or by virtue of this contract.

## **23.0 Entire Agreement**

This Agreement constitutes the entire Agreement between the parties with respect to the subject matter contained herein; all prior agreements, representations, statement, negotiations, and undertakings are suspended hereby. Neither party has relied on any representation, promise, or inducement not contained herein.

## **24.0 Special Terms and Conditions**

(Attached are any special terms and conditions to this contract, if applicable:)

CITY OF TUCKER:

By:\_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Name:\_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Bonnie Warne, City Clerk

(Seal)

Approved as to form:

Ted Baggett, City Attorney

**City of Tucker Invitation to Bid  
ITB #2023-029  
JULIETTE ROAD MEDIAN LANDSCAPING**

**PURPOSE, INTENT AND PROJECT DESCRIPTION**

The City of Tucker (City), requests that interested parties submit formal electronic bids for the construction of the Juliette Road Median Landscaping Project.

This project is for the installation of landscaping in the median of Juliette Road from E Ponce de Leon Avenue to the US 78 bridge per the attached plans and specifications. The complete scope, plans, and other relevant information for ITB 2023-029 Juliette Road Median Landscaping Project is available for download or review on the City of Tucker website: <https://www.tuckerga.gov/bids> or request via email to [procurement@tuckerga.gov](mailto:procurement@tuckerga.gov).

**GENERAL CONDITIONS**

The contractor shall execute the work according to and meet the requirements of the following:

- Georgia Department of Transportation (GDOT) Specifications, Standards, and Details
- The Contract Documents including but not limited to the scope of work, plans, and specifications
- City of Tucker ordinances and regulations
- OSHA standards and guidelines
- MUTCD Traffic Control
- Any other applicable codes, laws and regulations including but not limited to Section 45-10-20 through 45-10-28 of the Official Code of Georgia Annotated, Title VI of the Civil Rights Act, Drug-Free Workplace Act, and all applicable requirements of the Americans with Disabilities Act of 1990.

The contractor will be responsible for providing all labor, materials, and equipment necessary to perform the work. This is a unit price bid. Payment will be made based on actual work completed.

The contractor is responsible for inspecting the jobsite prior to submitting a bid. No change orders will be issued for differing site conditions.

The successful bidder must have verifiable experience at construction of similar projects in accordance with these specifications. Bidder shall provide at least three examples and reference information (including company name, project name, contact name, phone number and email address) demonstrating experience successfully completing projects of similar scope.

10% retainage will be withheld from the total amount due the contractor until Final Acceptance of work is issued by the City. The City will inspect the work as it progresses.

**PROSECUTION AND PROGRESS**

The Contractor will mobilize with sufficient forces such that all construction identified as part of this contract shall be substantially completed within 120 days of Notice to Proceed. The contractor will be considered substantially complete when all work required by this contract has been completed (excluding final punch list work).

Upon Notice of Award, the Contractor will be required to submit a Progress Schedule.

**City of Tucker Invitation to Bid**  
**ITB #2023-029**  
**JULIETTE ROAD MEDIAN LANDSCAPING**

Normal workday for this project shall be 7:00AM to 7:00PM and the normal workweek shall be Monday through Friday. The City will consider extended workdays or workweeks upon written request by the Contractor on a case-by-case basis. No work will be allowed on national holidays (i.e. Memorial Day, July 4th, Labor Day, etc.). No lane closures are allowed for this project.

The work will require bidder to provide all labor, administrative forces, equipment, materials and other incidental items to complete all required work. The City shall perform a Final Inspection upon substantial completion of the work. The contractor will be allowed to participate in the Final Inspection. All repairs shall be completed by the contractor at contractor's expense prior to issuance of Final Acceptance.

A one (1) year maintenance bond will be required. The selected contractor will be responsible for the maintenance of materials for one (1) year including watering and replacement of dead materials. The City will conduct an inspection at the end of the warranty period. The contractor will complete any Punch List work within 45 calendar days.

The contractor shall provide all material, labor, and equipment necessary to perform the work without delay until final completion.

The contractor shall provide a project progress schedule prior to or at the preconstruction meeting. This schedule should accurately represent the intended work and cannot be vague or broad such as listing every road in the contract.

The contractor shall submit a two-week advance schedule every **Friday by 2:00p.m.**, detailing scheduled activities for the following week.

**PERMITS AND LICENSES**

The contractor shall procure all permits and licenses, pay all charges, taxes and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

**BONDING AND INSURANCE REQUIREMENTS**

No bid may be withdrawn for a period of forty-five (45) days after the time has been called on the date of opening.

All bids must be accompanied by a Bid Bond of a reputable bonding company authorized to do business in the State of Georgia, in an amount equal to at least five percent (5%) of the total amount of the bid.

Upon Notice of Award, the successful contractor shall submit a Performance Bond payable to the City of Tucker in the amount of 100% of the total contract price. The successful contractor shall also submit a Payment Bond in the amount of 100% pursuant to O.C.G.A. § 36- 91-70 and 90.

Upon Notice of Award, the successful contractor shall procure and maintain a General Liability Insurance Policy with minimum limits of \$1,000,000 per person and \$1,000,000 per occurrence.

**City of Tucker Invitation to Bid  
ITB #2023-029  
JULIETTE ROAD MEDIAN LANDSCAPING**

**MATERIALS**

The contractor will be required to submit in writing a list of proposed sources of materials. The City will inspect and approve all materials prior to installation. The materials used in the work shall meet all quality requirements of the contract.

**PUBLIC NOTIFICATION**

The contractor shall be responsible for installing lane closure and construction signage per MUTCD guidelines. Payment for this will be included in the item for Traffic Control. Properties requiring driveway closures be notified no less than one week prior to said closures.

**EXISTING CONDITIONS / DEVIATION OF QUANTITIES**

All information given in this ITB concerning quantities, scope of work, existing conditions, etc. is for information purposes only. It is the Contractor's responsibility to inspect the project site to verify existing conditions and quantities prior to submitting their bid. This is a Unit Price bid and no payment will be made for additional work without prior written approval from the City. At no time will Contractor proceed with work outside the prescribed scope of services for which additional payment will be requested without the written authorization of the City.

The City reserves the right to add, modify, or delete quantities. The City may also elect to add or eliminate certain work locations at its discretion. The Contractor will not be entitled to any adjustment of unit prices or any other form of additional compensation because of adjustments made to quantities and/or work locations. Contractor will be paid for actual in-place quantities completed and accepted for pay items listed in the Bid Schedule. All other work required by this ITB, plans, specs, standards, etc. but not specifically listed in the Bid Schedule shall be considered "incidental work" and included in the bid prices for items on the Bid Schedule.

**TRAFFIC CONTROL**

The contractor shall, at all times, conduct his/her work so as to assure the least possible obstruction of traffic. The safety and convenience of the general public and the residents along the roadway and the protection of persons and property shall be provided for by the contractor as specified in the State of Georgia, Department of Transportation Standard Specifications Sections 104.05, 107.09 and 150.

Traffic whose origin and destination is within the limits of the project shall be provided ingress and egress at all times unless otherwise specified by the City. The ingress and egress includes entrances and exits via driveways at various properties, and access to the intersecting roads and streets. The contractor shall maintain sufficient personnel and equipment (including flaggers and traffic control signing) on the project at all times, particularly during inclement weather, to ensure that ingress and egress are safely provided when and where needed.

The contractor shall furnish, install and maintain all necessary and required barricades, signs and other traffic control devices in accordance with the MUTCD and DOT specifications, and take all necessary precautions for the protection of the workers and safety of the public.

All existing signs, markers and other traffic control devices removed or damaged during construction operations will be reinstalled or replaced at the contractor's expense, except as otherwise called for in the

**City of Tucker Invitation to Bid**  
**ITB #2023-029**  
**JULIETTE ROAD MEDIAN LANDSCAPING**

plans. At no time will contractor remove regulatory signing which may cause a hazard to the public.

**PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE**

The contractor shall be responsible for the preservation of all public and private property, crops, fish ponds, trees, monuments, highway signs and markers, fences, grassed and sodded areas, etc. along and adjacent to the highway, road or street, and shall use every precaution necessary to prevent damage or injury thereto, unless the removal, alteration, or destruction of such property is provided for under the contract.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work, or in consequence of the non-execution thereof by the contractor, he shall restore, at his/her own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or she/he shall make good such damage or injury in an acceptable manner. The contractor shall correct all disturbed areas before retainage will be released.

**CLEANUP**

All restoration and clean-up work shall be performed daily. Operations shall be suspended if the contractor fails to accomplish restoration and clean-up within an acceptable period of time. Asphalt and other debris shall be removed from gutters, sidewalks, yards, driveways, etc. Failure to perform clean-up activities may result in suspension of the work.

**SAFETY**

Beginning with mobilization and ending with acceptance of work, the contractor shall be responsible for providing a clean and safe work environment at the project site. The contractor shall comply with all OSHA regulations as they pertain to this project.

**SPECIAL CONDITIONS**

1. Remove and dispose of all existing median trees, stumps, and debris.
2. Quantities may vary from those shown on the plans. Use the quantities shown in Exhibit B.

**SUBCONTRACTOR**

Any contractor utilizing a subcontractor must submit a proposed list of subcontractors and a Subcontractor Affidavit.



**ITB #2023-029**  
**JULIETTE ROAD MEDIAN LANDSCAPING**  
**Exhibit B: Unit Price Bid Proposal Certification**

ITEM #	QTY	BOTANICAL/ COMMON NAME	SIZE	UNIT COST	TOTAL COST
1	13	ACER BUERGERIANUM / TRIDENT MAPLE	6' HT STD MATCHING		
2	16	CERCIDIPHYLLUM JAPONICUM / KATSURA TREE	6' HT STD MATCHING		
3	15	CERCIS CANADENSIS / EASTERN REDBUD	6' HT STD MATCHING		
4	26	LAGERSTROEMIA INDICA / CRAPE MYRTLE	6' HT STD MATCHING		
5	10	MAGNOLIA X SOULANGEANA / SAUCER MAGNOLIA	6' HT STD MATCHING		
6	7	QUERCUS TEXANA / NUTTALL OAK	6' HT STD MATCHING		
7	16	VITEX AGNUS-CASTUS / CHASTE TREE	6' HT STD MATCHING		
8	208	ABELIA X 'ROSE CREEK' / ROSE CREEK ABELIA	3GAL		
9	49	CAMELLIA SASANQUA 'DWARF SHISHI' / DWARF SHISHI CAMELLIA	3 GAL		
11	100	DISTYLUM X 'PIIDIST-11' / BLUE CASCADE® DISTYLUM	3 GAL		
12	88	ILEX VOMITORIA 'NANA' / DWARF YAUPON HOLLY	3 GAL		
13	32	ITEA VIRGINICA / VIRGINIA SWEETSPIRE	3 GAL		
14	160	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL		
15	112	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD' / WHITE CLOUD MUHLY GRASS	3 GAL		
16	140	PANICUM VIRGATUM / SWITCH GRASS	3 GAL		
17	113	RHODODENDRON X 'CONLEN' / AUTUMN BRAVO® ENCORE® AZALEA	3 GAL		
18	75	VIBURNUM OBOVATUM 'MRS. SCHILLER'S DELIGHT' / MRS. SCHILLERS DELIGHT WALTER'S VIBURNUM	3 GAL		
19	15,026 SF	HARDWOOD MULCH/ HARDWOOD MULCH			

PLEASE SEE OUR BID SHEET  
AS THERE IS NO LINE FOR  
SOIL, FERT, STAKING KITS, ETC

TOTAL **67,754.35**

**Company Name:** VISIONSCAPES, INC

**Address:** 1767 FELLOWSHIP RD TUCKER, GA 30084

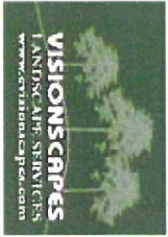
**Contact Person:** TJ Scoggins

**Phone Number:** 770-814-1674

**Email Address:** tj@visionscapes.com

**Signature:** *TJ Scoggins*

\*In case of discrepancy between the unit price and the total price on the completed Bid Schedule, the unit price will prevail, and the total price will be corrected.



# CITY OF TUCKER - JULIETTE ROAD MEDIAN Tucker, GA

## LANDSCAPE BID

DATE 10/18/23

Description		Quantity	Unit	Price	Amount Dollars
<b>MISCELLANEOUS</b>					
<b>Staking</b>					
1 Tree Staking Kits - Pro40G-Upto 4"Cal	103	Kit	\$	28.28	\$ 2,912.84
<b>Fertilizer</b>					
2 Mycorrhizal Inoculant	206	Bags	\$	8.48	\$ 1,746.88
3 Agriform 21g Tablet Fertilizer	1	Box	\$	94.25	\$ 94.25
<b>Pre-Emergent</b>					
4 Pre-Emergent	1	Bag	\$	188.50	\$ 188.50
<b>Site Prep</b>					
5 Water Occurances	15	Total	\$	471.25	\$ 7,068.75
					\$ 12,011.22
<b>SOILS/AMENDMENTS</b>					
<b>Topsoil</b>					
6 EP-Organic 60/40 Planting Soil	90	CuYd	\$	56.58	\$ 5,092.20
					\$ 5,092.20
<b>TREES</b>					
<b>Crape Myrtle</b>					
1 Crape Myrtle 6' (Quoting 7')	26	Each	\$	169.60	\$ 4,409.60
<b>Katsura</b>					
2 Katsura 6' (Quoting 2")	16	Each	\$	636.00	\$ 10,176.00

<u>Magnolia</u>									
	3 Magnolia/Saucer 6'	10	Each	\$	318.00	\$	-		
<u>Maple</u>									
	4 Maple/Trident 6'	13	Each	\$	124.02	\$	1,612.26		
<u>Oak</u>									
	5 Oak/Nuttall 6'	7	Each	\$	20.14	\$	140.98		
<u>Redbud</u>									
	6 Redbud/Eastern 6'	15	Each	\$	116.60	\$	1,749.00		
<u>Vitex</u>									
	7 Vitex/Chase Tree 6'	16	Each	\$	201.40	\$	3,222.40		
						\$	24,490.24		
<u>SHRUBS</u>									
<u>Abelia</u>									
	8 Abelia/Rose Creek 3 GAL	208	Each	\$	17.04	\$	3,544.32		
<u>Azalea</u>									
	9 Azalea/Encore ' Autumn Bravo " 3 GAL	113	Each	\$	38.34	\$	4,332.42		
<u>Camellia</u>									
	10 Camellia/Shi Shi Dwarf 3 GAL	49	Each	\$	44.73	\$	2,191.77		
<u>Distylium</u>									
	11 Distylium/Blue Cascade 3 GAL	100	Each	\$	34.08	\$	3,408.00		

<u>Grasses</u>									
	12 Grass/Muhly Pink 3 GAL	160	Each	\$	17.04	\$	-	2,726.40	
	13 Grass/Muhly White Cloud 3 GAL	112	Each	\$	18.11	\$	-	2,028.32	
	14 Grass/Switchgrass 3 GAL (Quoting 1 GAL)	140	Each	\$	9.59	\$	-	1,342.60	
<u>Holly</u>									
	15 Holly/Dwarf Yaupon 3 GAL	88	Each	\$	21.30	\$	-	1,874.40	
<u>Ilea</u>									
	16 Ilea/Virginia Sweetspire 3 GAL	32	Each	\$	26.63	\$	-	852.16	
<u>Viburnum</u>									
	17 Viburnum/Obovatum ' Mrs. Shillers' Delight ' 3 GAL	75	Each	\$	14.38	\$	-	1,078.50	
								<b>23,378.89</b>	
<u>MULCH</u>									
<u>Hardwood</u>									
	18 Cowart Prem. Hardwood Mulch	140	CuYd	\$	19.87	\$	-	2,781.80	
								<b>2,781.80</b>	
<u>MISCELLANEOUS</u>									
<u>SOILS/AMENDMENTS</u>									
								<b>12,011.22</b>	
<u>TREES</u>									
								<b>5,092.20</b>	
<u>SHRUBS</u>									
								<b>24,490.24</b>	
<u>MULCH</u>									
								<b>23,378.89</b>	
								<b>2,781.80</b>	
<u>Estimate Total</u>									<b>\$ 67,754.35</b>



**QUALIFICATIONS - INCLUSIONS/ EXCLUSIONS**

**Landscape**

This is based on drawings provided BY TRC, PER PLANTING EXHIBIT DATED JANUARY 2022.

The price includes labor, materials, and tax.

The warranty is for one (1) year except in the case of neglect, damage by others, inadequate maintenance, and 'Acts of God'.

The grade is to be within 1/10th of a foot of final grade.

**Irrigation**

NO IRRIGATION PRICED

**PROJECT SPECIFIC ASSUMPTIONS:**

NO IRRIGATION PRICED

NO WARRANTY IF VSI DOESN'T MAINTAIN THE TREES.

**PROJECT SPECIFIC EXCLUSIONS:**

Erosion control

Tree protection

Irrigation repairs

Traffic control/Lane Closures

Cranes for hoisting unless priced above

Permits

Soil Amendments for sod areas not included

Hardscapes

Drains/drainage systems unless priced above

Biobarriers/edging/Root Barrier

Hydrovac'ing

**General Conditions**

All Proposals are good for 60 days of submittal date above. Pricing is changing every 15-30 days on Irrigation Materials and Freight.

# Request for Taxpayer Identification Number and Certification

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Give Form to the  
requester. Do not  
send to the IRS.

Print or type.  
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>VISIONSCAPES, INC</b>	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.  <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.) See instructions. <b>1767 FELLOWSHIP RD</b>	Requester's name and address (optional)
6 City, state, and ZIP code <b>TUCKER/GA/30084</b>	
7 List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
			-				-		
or									
Employer identification number									
5	3		-	1	8	2	9	9	8

## Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign  
Here

Signature of  
U.S. person ►

Date ►

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
  - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
  - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
  - Form 1099-S (proceeds from real estate transactions)
  - Form 1099-K (merchant card and third party network transactions)
  - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
  - Form 1099-C (canceled debt)
  - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.





# EXHIBIT D

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/28/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION** IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Yates, LLC 2800 Century Parkway NE Suite 300 Atlanta GA 30345-	<b>CONTACT NAME:</b> <b>PHONE (A/C, No, Ext):</b> 404-633-4321 <b>E-MAIL ADDRESS:</b> certs@yatesins.com	<b>FAX (A/C, No):</b> 404-633-1312
<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
INSURER A : Selective Way Insurance Company		26301
<b>INSURED</b> Visionscapes, Inc. 1767 Fellowship Rd Tucker GA 30084-	VISIIN01-C	
INSURER B :		
INSURER C :		
INSURER D :		
INSURER E :		
INSURER F :		

**COVERAGES****CERTIFICATE NUMBER:** 888081059**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC OTHER:			S2236065	10/1/2023	10/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			S2236065	10/1/2023	10/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input checked="" type="checkbox"/> RETENTION \$ -0-			S2236065	10/1/2023	10/1/2024	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y / N <input type="checkbox"/>	N / A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Leased/Rented Equipment			S2236065	10/1/2023	10/1/2024	\$1000Ded Per Item/Max \$200,000/\$500,000
A	Scheduled Equipment			S2236065	10/1/2023	10/1/2024	\$200,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

Subject to policy terms, conditions, forms, and exclusions, the insurance coverages afforded by the policies above include the following when required by written contract for the certificate holder and/or entities listed below: Blanket Additional Insured in regards to General Liability for ongoing and completed operations and Automobile Liability; Blanket Primary and Non-Contributory in regards to General Liability and Automobile Liability; Blanket Waiver of Subrogation in regards to General Liability and Automobile Liability; Per Project Aggregate applies to the General Liability; Umbrella is subject to policy limits, forms, terms, conditions, and exclusions.

See Attached...

**CERTIFICATE HOLDER****CANCELLATION**

\*SAMPLE\*

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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**ADDITIONAL REMARKS SCHEDULE**Page 1 of 1

AGENCY Yates, LLC		NAMED INSURED Visionscapes, Inc. 1767 Fellowship Rd Tucker GA 30084-
POLICY NUMBER		
CARRIER	NAIC CODE	EFFECTIVE DATE:

**ADDITIONAL REMARKS****THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,****FORM NUMBER:** 25 **FORM TITLE:** CERTIFICATE OF LIABILITY INSURANCE**FORMS:**

CG7300 0622 - ElitePac® General Liability Extension Endorsement  
CG7988 0622 - Contracting, Installation, Service and Repair General Liability Extended ElitePac® Endorsement  
CG2503 0509 - Designated Construction Project(s) General Aggregate Limit  
CA7809 0423 - ElitePac® Commercial Automobile Extension  
CX-0003 (01/99) - Schedule of Underlying Insurance and Limits



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/11/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> GIGA Solutions, Inc. 101 Plaza Real South Ste 201 Boca Raton FL 33432	<b>CONTACT NAME:</b> <b>PHONE (A/C, No, Ext):</b> 888-581-0807 <b>E-MAIL ADDRESS:</b> certs@gigasolves.com	<b>FAX (A/C, No):</b>
<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
INSURER A : State National Insurance Company, Inc		12831
<b>INSURED</b> Evisionscapes, Inc Visionscapes, Inc 1767 Fellowship Road Tucker GA 30084	ALPHINC-01	
	INSURER B :	
	INSURER C :	
	INSURER D :	
	INSURER E :	
INSURER F :		

**COVERAGES****CERTIFICATE NUMBER:** 2118231450**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$
	OTHER:						\$
	<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident) \$
							\$
	<b>UMBRELLA LIAB</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	DED <input type="checkbox"/> RETENTION \$						\$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>			AMX-093-0009-001	7/1/2023	7/1/2024	X PER STATUTE <input type="checkbox"/> OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y / N <input type="checkbox"/>	N / A				E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

Proof of Insurance

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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# GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Solicitation/Bid number or Project Description:	ITB #2023-029 JULIETTE RD MEDIAN LANDSCAPE

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

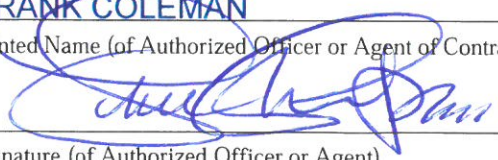
VISIONSCAPES, INC

Name of Contractor

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)



Signature (of Authorized Officer or Agent)

4/15/2010

Date of Authorization

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023

Elizabeth L Boot

Notary Public

My Commission Expires: 20 February 2023

[NOTARY SEAL]





## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Subcontractor's (Your) Name	FRANK COLEMAN
Solicitation/Bid number or Project Description:	ITB #2023-029 JULIETTE RD MEDIAN LANDSCAPE

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number (EEV/E-Verify Company Identification Number)

4/15/2010

Date of Authorization

VISIONSCAPES, INC

Name of Subcontractor

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

[Signature]

Signature (of Authorized Officer or Agent)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023

Elizabeth L Boot

Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024





## Contact Information Form

Please fill out this sheet with the appropriate contact information for your company.

Full Legal Name of Company: VISIONSCAPES, INC

Contractor Information:

Primary Contact Person: FRANK COLEMAN

Title: PRESIDENT Telephone Number: 678-878-5164

Secondary Contact Person: STACEY FICZCO

Title: SVP LANDSCAPE Telephone Number: 678-859-4919

Address: 1767 FELLOWSHIP RD

City / State / Zip: TUCKER/GA/30084

Mailing Address (If different than above): \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

E-mail Address: FRANKCOLEMAN@EVISIONSCAPES.COM

Federal Employee ID Number (FEIN): 58-182-9998



## EXHIBIT G

# CITY OF TUCKER

### ACKNOWLEDGE RECEIPT OF ADDENDUM #1 FORM

**ITB 2023-029**

**Juliette Road Median Landscaping**

**Upon receipt, please print and add to your proposal.**

**I hereby acknowledge receipt of the supplement pertaining to the  
above referenced bid.**

**COMPANY NAME:** VISIONSCAPES, INC

**CONTACT PERSON:** FRANK COLEMAN

**ADDRESS:** 1767 FELLOWSHIP RD

**CITY:** TUCKER

**STATE:** GA

**ZIP:** 30084

**PHONE:** 770-908-8999

**FAX:** 770-908-8110

**EMAIL ADDRESS:** tj@evisionscapes.com

TJ Scoggins

10/24/2023

**SIGNATURE**

**DATE**

# ITB 2023-029

## ADDENDUM #1

	QUESTION	ANSWER
1	ITB # 2023-026 Juliette Road Resurfacing and Safety Improvements appear to coincide with this project. Will both projects happen at the same time?	Depending on schedules and weather, these two projects could overlap. Coordination between the City and the contractors will be required.
2	Page 5 of ITB says "No Lane Closures." To safely remove existing trees from the median, we may need to block off the interior lane. Would lane closures be allowed for this portion of the work?	Lane closures will be allowed on Juliette Road during the approved hours and with proper traffic control.
3	Page 6 of ITB mentions a line item for traffic control. Should this be added to the bid proposal?	There is no pay item for traffic control. This should be considered in the unit pricing.
4	Do all the medians contain power lines? Can the City provide information regarding location, depth, and whether the power cables are safe from being disturbed by demolition/ clearing of trees & shrubs? If there is an expense related to the disconnection of power, will the contractor be responsible for this expense?	There is streetlight power in the median. The contractor is required to call in a utility locate and avoid utility conflicts.
5	Do the medians contain irrigation? If so, Can the City provide information regarding location, depth, and whether the irrigation lines are safe from being disturbed by demolition/ clearing of trees & shrubs?	There is no existing irrigation on the project.
6	The ITB states that the contractor is responsible for "replacement of dead materials." Does this have any exclusions (for example, vandalism or accidental loss due to traffic, pedestrian, or animal damage)?	After acceptance of the installation, the contractor is not responsible for vandalism or traffic damage during the one-year maintenance period.
7	Page 9 of the Landscape Plans calls for Mulch at a depth of 3". Pages 10 & 11 of the Plans calls for 4" mulch depth. Could you please clarify?	Use 4" of mulch.
8	Total mulch is scheduled for 15,026 SF. If there is a shortage based on specifications, how will this be billed?	This is a unit price bid. Invoicing will be verified and billed based on quantities placed.

## ITB 2023-029

### ADDENDUM #1

9	Regarding the potential to install temporary irrigation, is there an existing water meter in the planting area? If not, what would the city charge to install a 2" water meter in the planting area?	A meter would need to be acquired by the contractor from DeKalb Watershed.
10	The trees that are specified as 6' HT STD Matching - They will be small contained trees with less than a 2" caliper, all single trunk. Is this what you are specifying?	Yes.
11	I think last year per Georgia Code, they modified retainage percentage from 10% to 5%. So, does City intends to still hold 10% from contractor for this project?	The City requires a 10% retainage.

STATE OF GEORGIA

CITY OF TUCKER

RESOLUTION R2023-11-23

**A RESOLUTION TO APPROVE A CONTRACT FOR THE JULIETTE  
ROAD MEDIAN LANDSCAPING PROJECT ITB #2023-029**

**WHEREAS**, the Mayor and Council of the City of Tucker are authorized to approve contracts in furtherance of providing governmental services; and

**WHEREAS**, the City of Tucker has complied with the provisions of Title 32 of the O.C.G.A. by causing an invitation to bid to be published and bids received; and

**WHEREAS**, the City has determined through careful review that the lowest reliable bidder in response to said invitation is Visionscapes; and

**WHEREAS**, the Mayor and Council wish to see the streets and roads maintained in a state of good repair and the construction of sidewalks.

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and Council of the City of Tucker while at a regular meeting on November 13, 2023 that by passage of this Resolution contract C2023-029-PO24-617 is hereby approved by the governing authority.

APPROVED:

\_\_\_\_\_  
Frank Auman, Mayor

ATTEST:

\_\_\_\_\_  
Bonnie Warne, City Clerk

(seal)

**ITB #2023-029**  
**JULIETTE ROAD MEDIAN LANDSCAPING**  
**Exhibit B: Unit Price Bid Proposal Certification**

ITEM #	QTY	BOTANICAL/ COMMON NAME	SIZE	UNIT COST	TOTAL COST
1	13	ACER BUERGERIANUM / TRIDENT MAPLE	6' HT STD MATCHING		
2	16	CERCIDIPHYLLUM JAPONICUM / KATSURA TREE	6' HT STD MATCHING		
3	15	CERCIS CANADENSIS / EASTERN REDBUD	6' HT STD MATCHING		
4	26	LAGERSTROEMIA INDICA / CRAPE MYRTLE	6' HT STD MATCHING		
5	10	MAGNOLIA X SOULANGIANA / SAUCER MAGNOLIA	6' HT STD MATCHING		
6	7	QUERCUS TEXANA / NUTTALL OAK	6' HT STD MATCHING		
7	16	VITEX AGNUS-CASTUS / CHASTE TREE	6' HT STD MATCHING		
8	208	ABELIA X ROSE CREEK/ ROSE CREEK ABELIA	3 GAL		
9	49	CAMELLIA SASANQUA 'DWARF SHISHI' / DWARF SHISHI CAMELLIA	3 GAL		
11	100	DISTYLUM X PIDIOT-11 / BLUE CASCADE® DISTYLUM	3 GAL		
12	88	ILEX VOMITORIA 'NANA' / DWARF YALPON HOLLY	3 GAL		
13	32	ITEA VIRGINICA / VIRGINIA SWEETSPICE	3 GAL		
14	160	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL		
15	112	MUHLENBERGIA CAPILLARIS / PINK MUHLY GRASS	3 GAL		
16	140	PANICUM VIRGATUM / SWITCH GRASS	3 GAL		
17	113	RHODODENDRON X CONLEN / AUTUMN BRAVO® ENCORE® AZALEA	3 GAL		
18	75	VIBURNUM OBOVATUM MRS. SCHILLER'S DELIGHT/ MRS. SCHILLER'S DELIGHT WALTERS VIBURNUM	3 GAL		
19	15,026 SF	HARDWOOD MULCH/ HARDWOOD MULCH			
TOTAL					67,754.35

**PLEASE SEE OUR BID SHEET  
AS THERE IS NO LINE FOR  
SOIL, FERT, STAKING KITS, ETC**

**Company Name:** VISIONSCAPES, INC

**Address:** 1767 FELLOWSHIP RD TUCKER, GA 30084

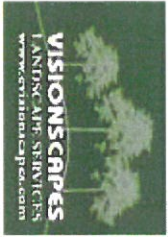
**Contact Person:** TJ Scoggins

**Phone Number:** 770-814-1674

**Email Address:** tj@visionscapes.com

**Signature:** *TJ Scoggins*

\*In case of discrepancy between the unit price and the total price on the completed Bid Schedule, the unit price will prevail, and the total price will be corrected.



# CITY OF TUCKER - JULIETTE ROAD MEDIAN Tucker, GA

## LANDSCAPE BID

DATE 10/18/23

Description		Quantity	Unit	Price	Amount Dollars
<b>MISCELLANEOUS</b>					
<b><u>Staking</u></b>					
1 Tree Staking Kits - Pro40G-Upto 4"Cal	103	Kit	\$	28.28	\$ 2,912.84
<b><u>Fertilizer</u></b>					
2 Mycorrhizal Inoculant	206	Bags	\$	8.48	\$ 1,746.88
3 Agriform 21g Tablet Fertilizer	1	Box	\$	94.25	\$ 94.25
<b><u>Pre-Emergent</u></b>					
4 Pre-Emergent	1	Bag	\$	188.50	\$ 188.50
<b><u>Site Prep</u></b>					
5 Water Occurances	15	Total	\$	471.25	\$ 7,068.75
					\$ 12,011.22
<b><u>SOILS/AMENDMENTS</u></b>					
<b><u>Topsoil</u></b>					
6 EP-Organic 60/40 Planting Soil	90	CuYd	\$	56.58	\$ 5,092.20
					\$ 5,092.20
<b><u>TREES</u></b>					
<b><u>Crape Myrtle</u></b>					
1 Crape Myrtle 6' (Quoting 7")	26	Each	\$	169.60	\$ 4,409.60
<b><u>Katsura</u></b>					
2 Katsura 6' (Quoting 2")	16	Each	\$	636.00	\$ 10,176.00



<u>Magnolia</u>									
	3 Magnolia/Saucer 6'	10	Each	\$	318.00	\$	-		
<u>Maple</u>									
	4 Maple/Trident 6'	13	Each	\$	124.02	\$	1,612.26		
<u>Oak</u>									
	5 Oak/Nuttall 6'	7	Each	\$	20.14	\$	140.98		
<u>Redbud</u>									
	6 Redbud/Eastern 6'	15	Each	\$	116.60	\$	1,749.00		
<u>Vitex</u>									
	7 Vitex/Chase Tree 6'	16	Each	\$	201.40	\$	3,222.40		
						\$	24,490.24		
<u>SHRUBS</u>									
<u>Abelia</u>									
	8 Abelia/Rose Creek 3 GAL	208	Each	\$	17.04	\$	3,544.32		
<u>Azalea</u>									
	9 Azalea/Encore ' Autumn Bravo " 3 GAL	113	Each	\$	38.34	\$	4,332.42		
<u>Camellia</u>									
	10 Camellia/Shi Shi Dwarf 3 GAL	49	Each	\$	44.73	\$	2,191.77		
<u>Distylium</u>									
	11 Distylium/Blue Cascade 3 GAL	100	Each	\$	34.08	\$	3,408.00		

<u>Grasses</u>									
	12 Grass/Muhly Pink 3 GAL	160	Each	\$	17.04	\$	-	2,726.40	
	13 Grass/Muhly White Cloud 3 GAL	112	Each	\$	18.11	\$	-	2,028.32	
	14 Grass/Switchgrass 3 GAL (Quoting 1 GAL)	140	Each	\$	9.59	\$	-	1,342.60	
<u>Holly</u>									
	15 Holly/Dwarf Yaupon 3 GAL	88	Each	\$	21.30	\$	-	1,874.40	
<u>Ilea</u>									
	16 Ilea/Virginia Sweetspire 3 GAL	32	Each	\$	26.63	\$	-	852.16	
<u>Viburnum</u>									
	17 Viburnum/Obovatum ' Mrs. Shillers' Delight ' 3 GAL	75	Each	\$	14.38	\$	-	1,078.50	
								<b>23,378.89</b>	
<u>MULCH</u>									
<u>Hardwood</u>									
	18 Cowart Prem. Hardwood Mulch	140	CuYd	\$	19.87	\$	-	2,781.80	
								<b>2,781.80</b>	
<u>MISCELLANEOUS</u>									
<u>SOILS/AMENDMENTS</u>									
								<b>12,011.22</b>	
<u>TREES</u>									
								<b>5,092.20</b>	
<u>SHRUBS</u>									
								<b>24,490.24</b>	
<u>MULCH</u>									
								<b>23,378.89</b>	
								<b>2,781.80</b>	
<u>Estimate Total</u>									<b>\$ 67,754.35</b>

## **QUALIFICATIONS - INCLUSIONS/ EXCLUSIONS**

### **Landscape**

This is based on drawings provided BY TRC, PER PLANTING EXHIBIT DATED JANUARY 2022.

The price includes labor, materials, and tax.

The warranty is for one (1) year except in the case of neglect, damage by others, inadequate maintenance, and 'Acts of God'.  
The grade is to be within 1/10th of a foot of final grade.

### **Irrigation**

NO IRRIGATION PRICED

### **PROJECT SPECIFIC ASSUMPTIONS:**

NO IRRIGATION PRICED

NO WARRANTY IF VSI DOESN'T MAINTAIN THE TREES.

### **PROJECT SPECIFIC EXCLUSIONS:**

Erosion control

Tree protection

Irrigation repairs

Traffic control/Lane Closures

Cranes for hoisting unless priced above

Permits

Soil Amendments for sod areas not included

Hardscapes

Drains/drainage systems unless priced above

Biobarriers/edging/Root Barrier

Hydrovac'ing

### **General Conditions**

All Proposals are good for 60 days of submittal date above. Pricing is changing every 15-30 days on Irrigation Materials and Freight.

## Contact Information Form

Please fill out this sheet with the appropriate contact information for your company.

Full Legal Name of Company: VISIONSCAPES, INC

Contractor Information:

Primary Contact Person: FRANK COLEMAN

Title: PRESIDENT Telephone Number: 678-878-5164

Secondary Contact Person: STACEY FICZCO

Title: SVP LANDSCAPE Telephone Number: 678-859-4919

Address: 1767 FELLOWSHIP RD

City / State / Zip: TUCKER/GA/30084

Mailing Address (If different than above): \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

E-mail Address: FRANKCOLEMAN@EVISIONSCAPES.COM

Federal Employee ID Number (FEIN): 58-182-9998



# Request for Taxpayer Identification Number and Certification

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Give Form to the  
requester. Do not  
send to the IRS.

Print or type. See Specific Instructions on page 3.	1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>VISIONSCAPES, INC</b>	
	2 Business name/disregarded entity name, if different from above	
	3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes. <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is <b>not</b> disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	
	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3): Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>	
	5 Address (number, street, and apt. or suite no.) See instructions. <b>1767 FELLOWSHIP RD</b>	Requester's name and address (optional)
	6 City, state, and ZIP code <b>TUCKER/GA/30084</b>	
	7 List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number								
				-				
or								
Employer identification number								
5	8		-	1	8	2	9	9
							9	8

## Part II Certification

Under penalties of perjury, I certify that:

1. The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
2. I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
3. I am a U.S. citizen or other U.S. person (defined below); and
4. The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ►	Date ►

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
  - Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
  - Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
  - Form 1099-S (proceeds from real estate transactions)
  - Form 1099-K (merchant card and third party network transactions)
  - Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
  - Form 1099-C (canceled debt)
  - Form 1099-A (acquisition or abandonment of secured property)
- Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.



## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Solicitation/Bid number or Project Description:	ITB #2023-029 JULIETTE RD MEDIAN LANDSCAPE

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

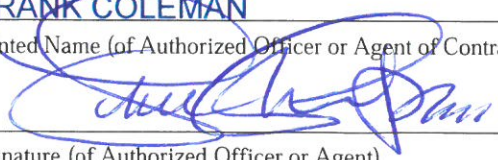
VISIONSCAPES, INC

Name of Contractor

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)



Signature (of Authorized Officer or Agent)

4/15/2010

Date of Authorization

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

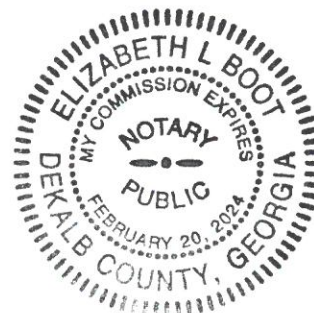
24 DAY OF October, 2023

Elizabeth L Boot

Notary Public

My Commission Expires: 20 February 2023

[NOTARY SEAL]







## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Subcontractor's (Your) Name	FRANK COLEMAN
Solicitation/Bid number or Project Description:	ITB #2023-029 JULIETTE RD MEDIAN LANDSCAPE

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number (EEV/E-Verify Company Identification Number)

4/15/2010

Date of Authorization

VISIONSCAPES, INC

Name of Subcontractor

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

Signature (of Authorized Officer or Agent)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023

Elizabeth L Boot  
Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024



## **BID BOND**

KNOW ALL MEN BY THESE PRESENTS, THAT

(Name of Contractor) Visionscapes, Inc. at

(Address of Contractor) 1767 Fellowship Road, Tucker, GA 30084

(Corporation, Partnership and / or Individual) hereinafter called Principal, and

(Name of Surety) The Ohio Casualty Insurance Company

(Address of Surety) 175 Berkeley Street, Boston, MA 02116

A corporation of the State of New Hampshire, and a surety authorized by law to do

business in the State of Georgia, hereinafter called Surety, are held, and firmly bound unto

(Name of Obligee) City of Tucker Georgia

(Address of Obligee) 1975 Lakeside Parkway, Suite 350, Tucker, Georgia 30084

Hereinafter referred to as Obligee, in the penal sum of Five Percent of Amount Bid  
Dollars (\$ 5% ) in lawful money of  
the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs,  
executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Tucker, Georgia, a proposal  
for furnishing materials, labor, and equipment for:

### **ITB # 2023-029 JULIETTE ROAD MEDIAN LANDSCAPING**

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified  
Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the  
Principal shall within ten days after receipt of notification of the acceptance execute a Contract  
in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and  
manner required by the City of Tucker, Georgia, and execute a sufficient and satisfactory  
Performance Bond and Payment Bond payable to the City of Tucker, Georgia, each in an  
amount of 100% of the total Contract Price, in form and with security satisfactory to said the  
City of Tucker, Georgia, and otherwise, to be and remain in full force and virtue in law; and the  
Surety shall, upon failure of the Principal to comply with any or all of the foregoing  
requirements within the time specified above, immediately pay to the City of Tucker, Georgia,

upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

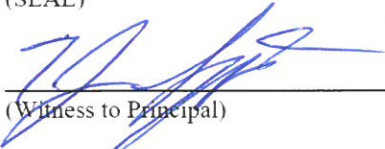
PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Seg. And SS 36- 86-101, et. Seg. And is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this 20th day of October A.D., 20 23.

ATTEST:

  
\_\_\_\_\_  
(Principal Secretary)

(SEAL)

  
\_\_\_\_\_  
(Witness to Principal)

1767 Fellowship Road, Tucker, GA 30084  
(Address)

Visionscapes, Inc.

\_\_\_\_\_  
(Principal)

BY: 

1767 Fellowship Road, Tucker, GA 30084  
(Address)

The Ohio Casualty Insurance Company  
(Surety)

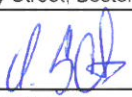
ATTEST:

BY: 

\_\_\_\_\_  
(Attorney-in-Fact) ~~xxxxxx~~

Michelle Anne McMahon, Attorney-in-Fact  
(Attorney-in-Fact)

175 Berkeley Street, Boston, MA 02116  
(Address)

  
\_\_\_\_\_  
(Witness as to Surety)

Imani Schley, Witness

(SEAL)





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Certificate No: **8210646 - 985949**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Connor Wolpert, Doritza Mojica, Gentry Stewart, Jennifer Godere, Jonathan Gleason, Joshua Sanford, Kathryn Pryor, Kyle Williams, Michelle Anne McMahon, Nicholas Miller, Richard Hackner, Robyn Salley, Sarah Murtha

all of the city of Hartford state of CT each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF**, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 22nd day of August, 2023.



Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

By: David M. Carey  
David M. Carey, Assistant Secretary

State of PENNSYLVANIA ss  
County of MONTGOMERY

On this 22nd day of August, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 28, 2025  
Commission number 1126044  
Member, Pennsylvania Association of Notaries

By: Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

### ARTICLE IV – OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

### ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 20th day of October, 2023.



By: Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary



**RFP #2023-029**

**JULIETTE ROAD MEDIAN LANDSCAPING**

**BID SUBMISSION SHEET**

**The listed firms below submitted bids which were turned in at the time indicated.  
Any bid or proposal submitted after the due date and time may not be considered for award.**

<b><u>COMPANY</u></b>	<b><u>RECEIVED</u></b>	<b><u>BID AMOUNT</u></b>
1. Sweet City Landscape	10/24/2023 10:30 AM	\$204,058.67
2. Visionscapes, Inc.	10/24/2023 10:53 AM	\$ 67,754.35
3. Tri Scapes, Inc.	10/24/2023 1:16 PM	\$133,344.01
4. Ed Castro Landscape	10/24/2023 1:36 PM	\$164,471.80
		<b>\$164,471.76</b>
5. Georgia Green Landscaping	10/24/2023 2:04 PM	\$175,375.30
6. Yellowstone Landscape Company	10/24/2023 2:07 PM	\$192,572.74
		<b>\$191,066.84</b>
7. Crabapple Turf Management, Inc.	10/24/2023 2:33 PM	\$101,594.22

Opened/Verified by: Beverly Hilton 10/24/2023

Ken Hildebrandt





MEMO

To: Honorable Mayor and City Council Members  
From: Ken Hildebrandt, City Engineer  
CC: Tami Hanlin, City Manager  
Date: November 13, 2023  
RE: Memo for Bid Award for Fellowship Road Landscaping

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**Description for on the Agenda:**  
Bid Award for Fellowship Road Landscaping

**Issue:**  
Bid award for ITB #2023-027: Fellowship Road Landscaping

**Recommendation:**  
Staff recommends that the bid be awarded to Visionscapes, Inc. in the amount of \$77,991.13.

**Background:**  
This project will provide trees, shrubs, and groundcover on both sides of Fellowship Road between 1<sup>st</sup> Avenue and the CSX Railroad bridge. It will also improve sight distance at the intersection of 1<sup>st</sup> Avenue and Fellowship Road. The Public Works Department will clear and grade the slope in preparation of the landscape installation.

**Summary:**  
Four bids were received:

Visionscapes	\$77,991.13
Yellowstone Landscaping	\$154,552.48
Georgia Green Landscaping	\$125,747.50
Tri Scapes	\$121,074.65

**Financial Impact:**  
\$77,991.13 will be funded from FY 2024 Capital funds dedicated to landscape improvements (CM2403, GL #300-1320-54.12000).



**CONTRACT AGREEMENT**  
**ITB #2023-027 FELLOWSHIP ROAD LANDSCAPE IMPROVEMENTS**

This Agreement made and entered into this 13<sup>th</sup> day of November in the year 2023; by and between the City of Tucker, Georgia, having its principal place of business at 1975 Lakeside Pkwy Suite 350, Tucker, Georgia 30084 and Visionscapes, Inc. ("Contractor"), located at 1767 Fellowship Road, Tucker, Georgia 30084.

WHEREAS, the City of Tucker is charged with the responsibility for the establishment of contracts for the acquisition of goods, materials, supplies and equipment, and services by the various departments of the City of Tucker; and

WHEREAS, the City of Tucker has caused Invitation to Bid #2023-027 to be issued soliciting bids from qualified Contractors to furnish all items, labor services, materials and appurtenances called for by them in accordance with these specifications. Selected ("Contractor") is required to provide the services as called for in the specifications; and

WHEREAS, the Contractor submitted a bid in response to ITB #2023-027; and

WHEREAS, the Contractor's bid was deemed by the City to be the lowest reliable bid per the scope of services; and

NOW THEREFORE, in consideration of the mutual covenant and promises contained herein, the parties agree as follows:

## **1.0 Scope of Work**

That the Contractor has agreed and by these present does agree with the City to furnish all equipment, tools, materials, skill, labor of every description, and all things necessary to carry out as delineated in "**Exhibit A**" (**Scope of Services**) and complete in a good, firm, substantial and workmanlike manner, the Work in strict conformity with the specifications which shall form an essential part of this agreement. In addition to the foregoing, and notwithstanding anything to the contrary stated herein, the following terms and conditions, amendments, and other documents are incorporated by reference and made a part of the terms and conditions of this Agreement as is fully set out herein:

**EXHIBIT A - SCOPE OF SERVICE**

**EXHIBIT B - COST PROPOSAL**

**EXHIBIT C- W-9**

**EXHIBIT D - CERTIFICATE OF INSURANCE**

**EXHIBIT E – E-VERIFY AFFIDAVIT**

**EXHIBIT F- CONTACT INFORMATION**

**EXHIBIT G - ADDENDUMS**

**EXHIBIT I – PERFORMANCE AND PAYMENT BONDS (if applicable)**

**2.0 Key Personnel**

The City of Tucker enters into this Agreement having relied upon Contractor's providing the services of the Key Personnel, if any, identified as such in the body of the Agreement. No Key Personnel may be replaced or transferred without the prior approval of the City's authorized representative. Any Contractor personnel to whom the City objects shall be removed from City work immediately. The City maintains the right to approve in its sole discretion all personnel assigned to the work under this Agreement.

**3.0 Compensation**

**3.1. Pricing.** The Contractor will be paid for the goods and services sold pursuant to the Contract in accordance with the bid and final pricing documents as incorporated into the terms of the Contract. All prices are firm and fixed and are not subject to variation. The prices quoted and listed on the attached Cost Proposal, a copy of which is attached hereto as Exhibit "B" (Cost Proposal) and incorporated herein, shall be firm throughout the term of this Contract. The maximum costs owed by the City, unless otherwise agreed to in writing, shall not exceed \$77,991.13.

Billings. If applicable, the Contractor shall submit, on a regular basis, an invoice for goods and services supplied to the City under the Contract at the billing address specified in the Purchase Instrument or Contract. The invoice shall comply with all applicable rules concerning payment of such claims. The City shall pay all approved invoices in arrears and in accordance with applicable provisions of City law. Unless otherwise agreed in writing by the parties, the Contractor shall not be entitled to receive any other payment or compensation from the City for any goods or services provided by or on behalf of the Contractor under the Contract. The Contractor shall be solely responsible for paying all costs, expenses, and charges it incurs in connection with its performance under the Contract.

Invoices are to be emailed to [invoice@tuckerga.gov](mailto:invoice@tuckerga.gov) and must reference the PO# (see top of contract). A W-9 Request for Taxpayer Identification Number and Certification Form must be submitted "Exhibit C" (W-9).

**3.2. Delay of Payment Due to Contractor's Failure.** If the City in good faith determines that the Contractor has failed to perform or deliver any service or product as required by the Contract, the Contractor shall not be entitled to any compensation under the Contract until such service or product is performed or delivered. In this event, the City may withhold that portion of the Contractor's compensation which represents payment for services or products that were not performed or delivered. To the extent that the Contractor's failure to perform or deliver in a timely manner causes the City to incur costs, the City may deduct the amount of such incurred costs from any amounts payable to Contractor. The City's authority to deduct such incurred costs shall not in any way affect the City's authority to terminate the Contract.

- 3.3.** Set-Off Against Sums Owed by the Contractor. If the Contractor owes the City any sum under the terms of the Contract, pursuant to any judgment, or pursuant to any law, the City may set off the sum owed to the City against any sum owed by the City to the Contractor in the City's sole discretion.

#### **4.0 Duration of Contract**

- 4.1.** Contract Term. The Contract between the City and the Contractor shall begin and end on the dates specified, unless terminated earlier in accordance with the applicable terms and conditions. Pursuant to O.C.G.A. Section 36-60-13, this Contract shall not be deemed to create a debt of the City for the payment of any sum beyond the fiscal year of execution. The terms of this contract shall align with the City's fiscal year from July 1 to June 30 and shall be from commencement of services until all services are rendered. All invoices postmarked by the City during said term shall be filled at the contract price.
- 4.2.** Contract Extension. If this Standard Contract shall terminate or be likely to terminate prior to the making of an award for a new contract for the identified goods and ancillary services, the City may, with the written consent of Contractor, extend this Contract for such period as may be necessary to afford the City a continuous supply of the identified goods and ancillary services.

If not set forth in the Contractor's submittal, the City will determine the basic period of performance for the completion of any of Contractor's actions contemplated within the scope of this Agreement and notify Contractor of the same via written notice. If no specific period for the completion of Contractor's required actions pursuant to this Agreement is set out in writing, such period shall be a reasonable period based upon the nature of the activity. If the completion of this Contract is delayed by actions of the City, then and in such event the time of completion of this Contract shall be extended for such additional time within which to complete the performance of the Contract as is required by such delay.

This Contract may be extended by mutual consent of both the City and the Contractor for reasons of additional time, additional services and/or additional areas of work.

#### **5.0 Independent Contractor**

- 5.1.** The Contractor shall be an independent Contractor. The Contractor is not an employee, agent, or representative of the City of Tucker. The successful Contractor shall obtain and maintain, at the Contractor's expense, all permits, license, or approvals that may be necessary for the performance of the services. The Contractor shall furnish copies of all such permits, licenses, or approvals to the City of Tucker Representative within ten (10) day after issuance.
- 5.2.** Inasmuch as the City of Tucker and the Contractor are independent of one another neither has the authority to bind the other to any third person or otherwise to act in any way as the representative of the other, unless otherwise expressly agreed to in writing signed by both parties hereto. The Contractor agrees not to represent itself as the City's agent for any purpose to any party or to allow any employee of the Contractor to do so, unless specifically authorized, in advance and in writing, to do so, and then only for the limited purpose stated in such authorization. The Contractor shall assume full liability for any contracts or agreements the Contractor enters into on behalf of the City of Tucker without the express knowledge and prior written consent of the City.

## **6.0 Indemnification**

- 6.1 The Contractor agrees to indemnify, hold harmless and defend the City, its public officials, officers, employees, and agents from and against any and all liabilities, suits, actions, legal proceedings, claims, demands, damages, costs and expenses (including reasonable attorney's fees) to the extent rising out of any act or omission of the Contractor, its agents, subcontractors or employees in the performance of this Contract except for such claims that arise from the City's sole negligence or willful misconduct.
- 6.2 Notwithstanding the foregoing indemnification clause, the City may join in the defense of any claims raised against it in the sole discretion of the City. Additionally, if any claim is raised against the City, said claim(s) cannot be settled or compromised without the City's written consent, which shall not be unreasonably withheld.

## **7.0 Performance**

Performance will be evaluated monthly. If requirements are not met, the City of Tucker will notify the Contractor in writing stating deficiencies, substitutions, delivery schedule, and/or poor workmanship.

A written response from the Contractor detailing how correction(s) will be made is required to be delivered to the City. The Contractor will have thirty (30) days to remedy the situation. If requirements are not remedied City of Tucker has the right to cancel this Agreement with no additional obligation to Contractor.

### **7.1 Final Completion, Acceptance, and Payment**

- i. Final Completion shall be achieved when the work is fully and finally complete in accordance with the Contract Documents. The City shall notify the Contractor once the date of final completion has been achieved in writing.
- ii. Final Acceptance is the formal action of the City acknowledging Final Completion. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the City's right under any warranty or guarantee. Prior to Final Acceptance, Contractor shall, in addition to all other requirements in the Contract Documents submit to the City a Notice of any outstanding disputes or claims between the Contractor and any of its subcontractors, including the amounts and other details thereof. Neither Final Acceptance nor final payment shall release the Contractor or its sureties from any obligations of these Contract Documents or the bond or constitute a waiver of any claims by City arising Contractor's failure to perform the work in accordance with the Contract Documents.
- iii. Acceptance of final payment by the Contractor, or any subcontractor, shall constitute a waiver and release to City of all claims by Contractor, or any such subcontractor, for an increase in the Contract Sum or the Contract Time, and for every act or omission of City relating to or arising out of the work, except for those Claims made in accordance



with the procedures, including the time limits, set forth in section 8.

## **8.0 Changes**

City, within the general scope of the Agreement, may, by written notice to Contractor, issue additional instructions, require additional services or direct the omission of services covered by this Agreement. In such an event, there will be made an equitable adjustment in price, but any claim for such an adjustment must be made within thirty (30) days of the receipt of said written notice.

## **9.0 Change Order Defined**

Change order shall mean a written order to the Contractor executed by the City issued after the execution of this Agreement, authorizing and directing a change in services. The Price and Time may be changed only by a Change Order.

## **10.0 Insurance**

- 10.1 The Contractor shall, at its own cost and expense, obtain and maintain worker's compensation and commercial general liability insurance coverage covering the period of this Agreement, such insurance to be obtained from a responsible insurance company legally licensed and authorized to transact business in the State of Georgia. The minimum limit for Worker's Compensation Insurance shall be the statutory limit for such insurance. The minimum limits for commercial general liability insurance, which must include personal liability coverage, will be \$1,000,000 per person and \$3,000,000 per occurrence for bodily injury and \$500,000 per occurrence for property damage.
- 10.2 Contractor shall provide certificates of insurance evidencing the coverage requested herein before the execution of this agreement, and at any time during the term of this Agreement, upon the request of the City, Contractor shall provide proof sufficient to the satisfaction of the City that such insurance continues in force and effect. "Exhibit D" (Certificate of Insurance).

## **11.0 Termination**

- 11.1. Immediate Termination. Pursuant to O.C.G.A. Section 36-60-13, this Contract will terminate immediately and absolutely if the City determines that adequate funds are not appropriated or granted or funds are de-appropriated such that the City cannot fulfill its obligations under the Contract, which determination is at the City's sole discretion and shall be conclusive. Further, the City may terminate the Contract for any one or more of the following reasons effective immediately without advance notice:
  - (i) In the event the Contractor is required to be certified or licensed as a condition precedent to providing goods and services, the revocation or loss of such license or certification may result in immediate termination of the Contract effective as of the date on which the license or certification is no longer in effect;
  - (ii) The City determines that the actions, or failure to act, of the Contractor, its agents, employees or subcontractors have caused, or reasonably could cause, life, health or

safety to be jeopardized;

- (iii) The Contractor fails to comply with confidentiality laws or provisions; and/or
- (iv) The Contractor furnished any statement, representation or certification which is materially false, deceptive, incorrect, or incomplete.

11.2. Termination for Cause. The occurrence of any one or more of the following events shall constitute cause or the City to declare the Contractor in default of its obligations under the Contract:

- (i) The Contractor fails to deliver or has delivered nonconforming goods or services or fails to perform to the City's satisfaction, any material requirement of the Contract or is in violation of a material provision of the Contract, including, but without limitation, the express warranties made by the Contractor;
- (ii) The City determines that satisfactory performance of the Contract is substantially endangered or that a default is likely to occur;
- (iii) The Contractor fails to make substantial and timely progress toward performance of the contract;
- (iv) The Contractor becomes subject to any bankruptcy or insolvency proceeding under federal or state law to the extent allowed by applicable federal or state law including bankruptcy laws; the Contractor terminates or suspends its business; or the City reasonably believes that the Contractor has become insolvent or unable to pay its obligations as they accrue consistent with applicable federal or state law;
- (v) The Contractor has failed to comply with applicable federal, state and local laws, rules, ordinances, regulations and orders when performing within the scope of the Contract;
- (vi) The Contractor has engaged in conduct that has or may expose the City to liability, as determined in the City's sole discretion; or
- (vii) The Contractor has infringed any patent, trademark, copyright, trade dress or any other intellectual property rights of the State, the City, or a third party.

11.3. Notice of Default. If there is a default event caused by the Contractor, the City shall provide written notice to the Contractor requesting that the breach or noncompliance be remedied within the period specified in the City's written notice to the Contractor. If the breach or noncompliance is not remedied by the date of the written notice, the City may:

- (i) Immediately terminate the Contract without additional written notice; and/or
- (ii) Procure substitute goods or services from another source and charge the difference between the Contract and the substitute contract to the defaulting Contractor; and/or,
- (iii) Enforce the terms and conditions of the Contract and seek any legal or equitable

remedies.

- 11.4. Termination for Convenience. The City may terminate this Agreement for convenience at any time upon thirty (30) day written notice to the Contractor. In the event of termination for convenience, the Contractor shall take immediate steps to terminate work as quickly and effectively as possible and shall terminate all commitments to third parties unless otherwise instructed by the City. Provided that no damages are due to the City for the Contractor's failure to perform in accordance with this Agreement, the City shall pay the Contractor for work performed to date in accordance with Section 7 herein. The City shall have no further liability to the Contractor for such termination.
- 11.5. Payment Limitation in the event of Termination. In the event of termination of the Contract for any reason by the City, the City shall pay only those amounts, if any, due and owing to the Contractor goods and services rendered up to and including the date of termination of the Contract and for which the City is obligated to pay pursuant to the Contract or Purchase Instrument. Payment will be made only upon submission of invoices and proper proof of the Contractor's claim. This provision in no way limits the remedies available to the City under the Contract in the event of termination. The City shall not be liable for any costs incurred by the Contractor in its performance of the Contract, including, but not limited to, startup costs, overhead or other costs associated with the performance of the Contract.
- 11.6. The Contractor's Termination Duties. Upon receipt of notice of termination or upon request of the City, the Contractor shall:
- (i) Cease work under the Contract and take all necessary or appropriate steps to limit disbursements and minimize costs, and furnish a report within thirty (30) days of the date of notice of termination, describing the status of all work under the Contract, including, without limitation, results accomplished, conclusions resulting therefrom, and any other matters the City may require;
  - (ii) Immediately cease using and return to the City, any personal property or materials, whether tangible or intangible, provided by the City to the Contractor;
  - (iii) Comply with the City's instructions for the timely transfer of any active files and work product produced by the Contractor under the Contract;
  - (iv) Cooperate in good faith with the City, its employees, agents, and Contractors during the transition period between the notification of termination and the substitution of any replacement Contractor; and
  - (v) Immediately return to the City any payments made by the City for goods and services that were not delivered or rendered by the Contractor.

## **12.0 Claims and Dispute Resolution**

### **12.1 Claims Procedure**

- (i) If the parties fail to reach agreement regarding any dispute arising from the Contract

Documents, including a failure to reach agreement on the terms of any Change Order for City- directed work as provided in section 8, or on the resolution of any request for an equitable adjustment in the Contract Sum or the Contract Time, the Contractor's only remedy shall be to file a Claim with City as provided in this section.

- (ii) The Contractor shall file its Claim within the earlier of 120 Days from City's final instructions in accordance with section 8, or the date of Final Acceptance,
- (iii) The Claim shall be deemed to cover all changes in cost and time (including direct, indirect impact, and consequential) to which the Contractor may be entitled. It shall be fully substantiated and documented. The Claim shall contain a detailed factual statement of the Claim for additional compensation and time, if any, providing all necessary dates, locations, and items of work affected by the Claim.
- (iv) If an adjustment in the Contract Time is sought: the specific Days and dates for which it is sought; the specific reasons Contractor believes an extension in the Contract Time should be granted; and the Contractor's analysis of its Progress Schedule to demonstrate the reason for the extension in Contract Time.
- (v) If any adjustment in the Contract Sum is sought: the exact amount sought and a breakdown of that amount into the categories; and a statement certifying, under penalty of perjury, that the Claim is made in good faith, that the supporting cost and pricing data are true and accurate to the best of the Contractor's knowledge and belief, that the Claim is fully supported by the accompanying data, and that the amount requested accurately reflects the adjustment in the Contract Sum or Contract Time for which the Contractor believes the City is liable.
- (vi) After the Contractor has submitted a fully documented Claim, the City shall respond, in writing, to the Contractor with a decision within sixty (60) days of the date the Claim is received, or with notice to the Contractor of the date by which it will render its decision.

## 12.2 Arbitration

- i) If the Contractor disagrees with the City's decision rendered in accordance with section 12, the Contractor shall provide the City with a written demand for arbitration. No demand for arbitration of any such Claim shall be made later than thirty (30) Days after the date of City's decision on such Claim, failure to demand arbitration with said thirty (30) Day period shall result in City's decision being final and binding upon Contractor and its subcontractors,
- ii) Notice of the demand for arbitration shall be filed with the American Arbitration Association (AAA), with a copy provide to the City. The parties shall negotiate or mediate under the Voluntary Construction Mediation Rules of the AAA, or mutually acceptable service, before seeking arbitration in accordance with the Construction Industry Arbitration Rules of AAA as follows:
  - 1. Disputes involving \$30,000 or less shall be conducted in accordance with the Southeast Region Expedited Commercial Arbitration Rules; or

2. Disputes over \$30,000 shall be conducted in accordance with the Construction Industry Arbitration Rules of the AAA, unless the parties agree to use the expedited rules.
  - All Claims arising out of the work shall be resolved by arbitration. The judgment upon the arbitration award may be entered, or review of the award may occur, in the Superior Court of DeKalb County.
  - If the parties resolve the Claim prior to arbitration judgment, the terms of the resolution shall be incorporated in a Change Order. The Change Order shall constitute full payment and final settlement of the Claim, including all claims for time and for direct, indirect, or consequential costs, including costs of delays, inconvenience, disruption of schedule, or loss of efficiency or productivity.
  - Choice of Law and Forum. The laws of the State of Georgia shall govern and determine all matters arising out of or in connection with this Contract without regard to the choice of law provisions of State law. The Superior Court of DeKalb County, Georgia shall have exclusive jurisdiction to try disputes arising under or by virtue of this contract. In the event any proceeding of a quasi-judicial or judicial nature is commenced in connection with this Contract, such proceeding shall solely be brought in a court or other forum of competent jurisdiction within DeKalb County, Georgia. This provision shall not be construed as waiving any immunity to suit or liability, including without limitation sovereign immunity, which may be available to the City.
  - All Claims filed against the City shall be subject to audit at any time following the filing of the Claim. Failure of the Contractor, or subcontractor of any tier, to maintain and retain sufficient records to allow the City to verify all or a portion of the Claim or to permit the City access to the books and records of the Contractor, or subcontractor of any tier, shall constitute a waiver of the Claim and shall bar any recovery.

### **13.0 Confidential Information**

- 13.1. Access to Confidential Data. The Contractor's employees, agents and subcontractors may have access to confidential data maintained by the City to the extent necessary to carry out the Contractor's responsibilities under the Contract. The Contractor shall presume that all information received pursuant to the Contract is confidential unless otherwise designated by the City. If it is reasonably likely the Contractor will have access to the City's confidential information, then:
  - (i) The Contractor shall provide to the City a written description of the Contractor's policies and procedures to safeguard confidential information;
  - (ii) Policies of confidentiality shall address, as appropriate, information conveyed in verbal, written, and electronic formats;



(iii)The Contractor must designate one individual who shall remain the responsible authority in charge of all data collected, used, or disseminated by the Contractor in connection with the performance of the Contract; and

(iv)The Contractor shall provide adequate supervision and training to its agents, employees, and subcontractors to ensure compliance with the terms of the Contract. Private or confidential data shall always remain the property of the City. Some services performed for the City may require the Contractor to sign a nondisclosure agreement. The Contractor understands and agrees that refusal or failure to sign such a nondisclosure agreement, if required, may result in termination of the Contract.

13.2. No Dissemination of Confidential Data. No confidential data collected, maintained, or used during performance of the Contract shall be disseminated except as authorized by law and with the written consent of the City, either during the period of the Contract or thereafter. Any data supplied to or created by the Contractor shall be considered the property of the City. The Contractor must return all data collected, maintained, created or used in the course of the performance of the Contract, in whatever form it is maintained, promptly at the request of the City.

13.3. Subpoena. If a subpoena or other legal process is served upon the Contractor for records containing confidential information, the Contractor shall promptly notify the City and cooperate with the City in any lawful effort to protect the confidential information.

13.4. Reporting of Unauthorized Disclosure. The Contractor shall immediately report to the City any unauthorized disclosure of confidential information.

13.5. Survives Termination. The Contractor's confidentiality obligation under the Contract shall survive termination of the Contract.

#### **14.0 Inclusion of Documents**

The Contractor's documents submitted in response to any RFP or other solicitation from the City, including any best and final offer, are incorporated in this Agreement by reference and form an integral part of this agreement. In the event of a conflict in language between this Agreement and the foregoing documents incorporated herein, the provisions and requirements set forth in this Agreement shall govern. In the event of a conflict between the language of the RFP or other city solicitation, as amended, and the Contractor's submittal, the language in the former shall govern.

14.1 Counterparts: This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one and the same instrument.

#### **15.0 Compliance with All Laws and Licenses**

The Contractor must obtain all necessary licenses and comply with local, state, and federal requirements. The Contractor shall comply with all laws, rules and regulations of any governmental

entity pertaining to its performance under this Agreement.

## 15.1 Federal Requirements.

### 15.1.1 Federal Compliance Regulations

Federal regulations apply to all City of Tucker contracts using Federal funds as a source for the solicitation of goods and services. Successful bidders must comply with the following Federal requirement as they apply to:

1. Equal Employment Opportunity - The Contractor shall not discriminate against any employee or applicant or employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor shall comply with Executive Order 12466, as amended, and the rules, regulations, and orders of the Secretary of Labor.
2. Reports - The submission of reports to the City on behalf of the Federal Government as may be determined necessary for the activities covered by this contract;
3. Patents - The Federal Government reserves a royalty-free, nonexclusive, and irrevocable right to use, and to authorize others to use, for Federal Government purposes:
  - a. Any patent that shall result under this contract; and
  - b. Any patent rights to which the Contractor purchases ownership with grant support
4. Copyrights - The Federal Government reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, for Federal Government purposes:
  - a. The copyright in any work developed under this contract; and
  - b. Any rights of copyright to which the Contractor purchases ownership with grant support.
5. Access to books, documents, papers, and records of the Contractor which are directly pertinent to the specific contract for the purposes of making audit, examination, excerpts and transcriptions by Federal agencies, the Comptroller General of the United States, or any of their duly authorized representatives; and
6. Retention of all required records for three years after the City makes final payment and all other pending matters are closed.

## 15.2 Georgia Security and Immigration Compliance Act

- a. The parties certify that the Contractor has executed an affidavit verifying that the Contractor has registered and participates in the federal work authorization program to verify information of all new employees, per O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02. The appropriate affidavit is attached hereto as "Exhibit E" (E-Verify Form) and incorporated herein by reference and made a part of this contract.
- b. The Contractor further certifies that any subcontractor employed by the Contractor for the performance of this agreement has executed an appropriate subcontractor affidavit verifying its registration and participation in the federal work authorization program and compliance with O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02, and that all such affidavits are incorporated into and made a part of every contract between the Contractor and each subcontractor.
- c. The Contractor's compliance with O.C.G.A. 13-10-90, et. seq., and Georgia Department of Labor Regulations Rule 300-10-1-02 is a material condition of this agreement and the Contractor's failure to comply with said provisions shall constitute a material breach of this agreement.

## 16.0 Assignment

The Contractor shall not assign or subcontract the whole or any part of this Agreement without the City of Tucker's prior written consent.

## 17.0 Amendments in Writing

No amendments to this Agreement shall be effective unless it is in writing and signed by duly authorized representatives of the parties.

## 18.0 Drug-Free and Smoke-Free Workplace

- 18.1 A drug-free and smoke-free workplace will be provided for the Contractor's employees during the performance of this Agreement; and
- 18.2 The Contractor will secure from any sub-Contractor hired to work in a drug-free and smoke-free work place a written certification so stating and in accordance with Paragraph 7, subsection B of the Official Code of Georgia Annotated Section 50-24-3.
- 18.3 The Contractor may be suspended, terminated, or debarred if it is determined that:
  - 18.3.1 The Contractor has made false certification herein; or
  - 18.3.2 The Contractor has violated such certification by failure to carry out the requirements of Official Code of Georgia Annotated Section 50-24-3.

## **19.0 Additional Terms**

Neither the City nor any Department shall be bound by any terms and conditions included in any Contractor packaging, Invoice, catalog, brochure, technical data sheet, or other document which attempts to impose any condition in variance with or in addition to the terms and conditions contained herein.

## **20.0 Antitrust Actions**

For good cause and as consideration for executing this Contract or placing this order, the Contractor acting herein by and through its duly authorized agent hereby conveys, sells, assigns, and transfers to the City of Tucker all rights, title, and interest to and to all causes of action it may now or hereafter acquire under the antitrust laws of the United States and the State of Georgia relating to the particular goods or services purchased or acquired by the City of Tucker pursuant hereto.

## **21.0 Reporting Requirement**

Reports shall be submitted to the Project Manager on a monthly basis providing, as a minimum, data regarding the number of items purchased as well as the total dollar volume of purchases made from this contract.

## **22.0 Governing Law**

This Agreement shall be governed in all respects by the laws of the State of Georgia. The Superior Court of DeKalb County, Georgia shall have exclusive jurisdiction to try disputes arising under or by virtue of this contract.

## **23.0 Entire Agreement**

This Agreement constitutes the entire Agreement between the parties with respect to the subject matter contained herein; all prior agreements, representations, statement, negotiations, and undertakings are suspended hereby. Neither party has relied on any representation, promise, or inducement not contained herein.

## **24.0 Special Terms and Conditions**

(Attached are any special terms and conditions to this contract, if applicable:)

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their duly authorized officers as of the day and year set forth next to each signature.

CITY OF TUCKER:	CONTRACTOR: Visionscapes, Inc.
By: _____	By: _____
Title: _____	Title: _____
Name: _____	Name: _____
Date: _____	Date: _____

Attest:

_____ Bonnie Warne, City Clerk	(Seal)
-----------------------------------	--------

Approved as to form:

_____ Ted Baggett, City Attorney
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**ITB #2023-027**  
**Fellowship Road Landscape Improvements**

**PURPOSE, INTENT AND PROJECT DESCRIPTION**

The City of Tucker (City), requests that interested parties submit formal electronic bids for the construction of the Fellowship Road Landscape Improvements Project.

This project is for the installation of landscaping on both sides of Fellowship Road from 1<sup>st</sup> Avenue to the CSX Railroad bridge per the attached plans and specifications. The complete scope, plans, and other relevant information for ITB 2023-027 Fellowship Road Landscape Improvements Project is available for download or review on the City of Tucker website: <https://www.tuckerga.gov/bids>.

**GENERAL CONDITIONS**

The contractor shall execute the work according to and meet the requirements of the following:

- Georgia Department of Transportation (GDOT) Specifications, Standards, and Details
- The Contract Documents including but not limited to the scope of work, plans, and specifications
- City of Tucker ordinances and regulations
- OSHA standards and guidelines
- MUTCD Traffic Control
- Any other applicable codes, laws and regulations including but not limited to Section 45-10-20 through 45-10-28 of the Official Code of Georgia Annotated, Title VI of the Civil Rights Act, Drug-Free Workplace Act, and all applicable requirements of the Americans with Disabilities Act of 1990.

The contractor will be responsible for providing all labor, materials, and equipment necessary to perform the work. This is a unit price bid. Payment will be made based on actual work completed.

The contractor is responsible for inspecting the jobsite prior to submitting a bid. No change orders will be issued for differing site conditions.

The successful bidder must have verifiable experience at construction of similar projects in accordance with these specifications. Bidder shall provide at least three examples and reference information (including company name, project name, contact name, phone number and email address) demonstrating experience successfully completing projects of similar scope.

10% retainage will be withheld from the total amount due the contractor until Final Acceptance of work is issued by the City. The City will inspect the work as it progresses.

**PROSECUTION AND PROGRESS**

The Contractor will mobilize with sufficient forces such that all construction identified as part of this contract shall be substantially completed within 90 days of Notice to Proceed. The contractor will be considered substantially complete when all work required by this contract has been completed (excluding final punch list work).

Upon Notice of Award, the Contractor will be required to submit a Progress Schedule.

Normal workday for this project shall be 7:00AM to 7:00PM and the normal workweek shall be Monday through Friday. The City will consider extended workdays or workweeks upon written request by the Contractor on a case-by-case basis. No work will be allowed on national holidays (i.e. Memorial Day, July

**ITB #2023-027**  
**Fellowship Road Landscape Improvements**

4th, Labor Day, etc.).

The work will require bidder to provide all labor, administrative forces, equipment, materials and other incidental items to complete all required work. The City shall perform a Final Inspection upon substantial completion of the work. The contractor will be allowed to participate in the Final Inspection. All repairs shall be completed by the contractor at contractor's expense prior to issuance of Final Acceptance.

A one (1) year maintenance bond will be required. The selected contractor will be responsible for the maintenance of materials for one (1) year including watering and replacement of dead materials. The City will conduct an inspection at the end of the warranty period. The contractor will complete any Punch List work within 45 calendar days.

The contractor shall provide all material, labor, and equipment necessary to perform the work without delay until final completion.

The contractor shall provide a project progress schedule prior to or at the preconstruction meeting. This schedule should accurately represent the intended work and cannot be vague or broad such as listing every road in the contract.

The contractor shall submit a two-week advance schedule every **Friday by 2:00p.m.**, detailing scheduled activities for the following week.

**PERMITS AND LICENSES**

The contractor shall procure all permits and licenses, pay all charges, taxes and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.

**BONDING AND INSURANCE REQUIREMENTS**

No bid may be withdrawn for a period of forty-five (45) days after the time has been called on the date of opening.

All bids must be accompanied by a Bid Bond of a reputable bonding company authorized to do business in the State of Georgia, in an amount equal to at least five percent (5%) of the total amount of the bid.

Upon Notice of Award, the successful contractor shall submit a Performance Bond payable to the City of Tucker in the amount of 100% of the total contract price. The successful contractor shall also submit a Payment Bond in the amount of 100% pursuant to O.C.G.A. § 36- 91-70 and 90.

Upon Notice of Award, the successful contractor shall procure and maintain a General Liability Insurance Policy with minimum limits of \$1,000,000 per person and \$1,000,000 per occurrence.

**MATERIALS**

The contractor will be required to submit in writing a list of proposed sources of materials. The City will inspect and approve all materials prior to installation. The materials used in the work shall meet all quality requirements of the contract.

**PUBLIC NOTIFICATION**

The contractor shall be responsible for installing lane closure and construction signage per MUTCD

**ITB #2023-027**  
**Fellowship Road Landscape Improvements**

guidelines. Payment for this will be included in the item for Traffic Control. Properties requiring driveway closures be notified no less than one week prior to said closures.

**EXISTING CONDITIONS / DEVIATION OF QUANTITIES**

All information given in this ITB concerning quantities, scope of work, existing conditions, etc. is for information purposes only. It is the Contractor's responsibility to inspect the project site to verify existing conditions and quantities prior to submitting their bid. This is a Unit Price bid and no payment will be made for additional work without prior written approval from the City. At no time will Contractor proceed with work outside the prescribed scope of services for which additional payment will be requested without the written authorization of the City.

The City reserves the right to add, modify, or delete quantities. The City may also elect to add or eliminate certain work locations at its discretion. The Contractor will not be entitled to any adjustment of unit prices or any other form of additional compensation because of adjustments made to quantities and/or work locations. Contractor will be paid for actual in-place quantities completed and accepted for pay items listed in the Bid Schedule. All other work required by this ITB, plans, specs, standards, etc. but not specifically listed in the Bid Schedule shall be considered "incidental work" and included in the bid prices for items on the Bid Schedule.

**TRAFFIC CONTROL**

The contractor shall, at all times, conduct his/her work so as to assure the least possible obstruction of traffic. The safety and convenience of the general public and the residents along the roadway and the protection of persons and property shall be provided for by the contractor as specified in the State of Georgia, Department of Transportation Standard Specifications Sections 104.05, 107.09 and 150.

Traffic whose origin and destination is within the limits of the project shall be provided ingress and egress at all times unless otherwise specified by the City. The ingress and egress includes entrances and exits via driveways at various properties, and access to the intersecting roads and streets. The contractor shall maintain sufficient personnel and equipment (including flaggers and traffic control signing) on the project at all times, particularly during inclement weather, to ensure that ingress and egress are safely provided when and where needed.

Two-way traffic shall be maintained at all times, unless otherwise specified or approved by the City. In the event of an emergency situation, the Contractor shall provide access to emergency vehicles and/or emergency personnel through or around the construction area. Any pavement damaged by such an occurrence will be repaired by the Contractor at no additional cost to the City.

The contractor shall furnish, install and maintain all necessary and required barricades, signs and other traffic control devices in accordance with the MUTCD and DOT specifications, and take all necessary precautions for the protection of the workers and safety of the public.

All existing signs, markers and other traffic control devices removed or damaged during construction operations will be reinstalled or replaced at the contractor's expense, except as otherwise called for in the plans. At no time will contractor remove regulatory signing which may cause a hazard to the public.

**PROTECTION AND RESTORATION OF PROPERTY AND LANDSCAPE**

The contractor shall be responsible for the preservation of all public and private property, crops, fish ponds,

**ITB #2023-027**  
**Fellowship Road Landscape Improvements**

trees, monuments, highway signs and markers, fences, grassed and sodded areas, etc. along and adjacent to the highway, road or street, and shall use every precaution necessary to prevent damage or injury thereto, unless the removal, alteration, or destruction of such property is provided for under the contract.

When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect or misconduct in the execution of the work, or in consequence of the non-execution thereof by the contractor, he shall restore, at his/her own expense, such property to a condition similar or equal to that existing before such damage or injury was done, by repairing, rebuilding or otherwise restoring as may be directed, or she/he shall make good such damage or injury in an acceptable manner. The contractor shall correct all disturbed areas before retainage will be released.

**CLEANUP**

All restoration and clean-up work shall be performed daily. Operations shall be suspended if the contractor fails to accomplish restoration and clean-up within an acceptable period of time. Asphalt and other debris shall be removed from gutters, sidewalks, yards, driveways, etc. Failure to perform clean-up activities may result in suspension of the work.

**SAFETY**

Beginning with mobilization and ending with acceptance of work, the contractor shall be responsible for providing a clean and safe work environment at the project site. The contractor shall comply with all OSHA regulations as they pertain to this project.

**SPECIAL CONDITIONS**

1. City forces will grade the existing slope, including the removal of trees, kudzu, etc. No significant grading or clearing will be required for this project.

**SUBCONTRACTOR**

Any contractor utilizing a subcontractor must submit a proposed list of subcontractors and a Subcontractor Affidavit (Exhibit E-2).

**ITB #2023-027**  
**Fellowship Road Landscape Improvements**  
**Exhibit B: Unit Price Bid Proposal**

ITB #2023-027 - Fellowship Road Landscape Improvements							
Shrubs	Qty.	Scientific Name	Common Name	Size	Special Notes	Spacing	Unit Cost
	175	Clethra alnifolia 'Hummingbird'	Hummingbird' Summersweet	1 gal	Full, Vigorous	36" O.C.	
	360	Ilex verticillata 'Nana'	Nana' Red Sprite	1 gal	Full, Vigorous	30" O.C.	
	345	Itea virginica 'Little Henry'	Little Henry' Sweetspire	1 gal	Full, Vigorous	36" O.C.	
	205	Hypericum frondosum	Shrubby St. Johns Wort	1 gal	Full, Vigorous	24" O.C.	
	200	Ilex vomitoria 'Schillings'	Mrs. Schiller's Delight Viburnum	3 gal	Full, Vigorous	48" O.C.	
	180	Ceanothus americanus	Mrs. Schiller's Delight Viburnum	3 gal	Upright, Full, Vigorous	48" O.C.	
	165	Viburnum obovatum	Mrs. Schiller's Delight Viburnum	3 gal	Full, Vigorous	36" O.C.	
	6	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Dogwood	2.5" cal.	Multi-trunk, 2 min., Full and well branched	15' O.C.	
	11	Cercis x 'Merlot'	Merlot Redbud	2.5" cal.	Straight single trunk, Strong central leader, Well branched	15' O.C.	
	2	Chionanthus virginicus	Southern Fringe Tree	2.5" cal.	Multi-trunk, 2 min., Full and well branched	15' O.C.	
	4	Prunus caroliniana 'Monus'	Bright n Tight Cherry Laurel	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
	7	Juniperus virginiana 'Brodie'	Brodie Cedar	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
	6	Ilex x attenuata 'Savannah'	Savannah Holly	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
Grass	Qty.	Scientific Name	Common Name	Size	Special Notes		
	9000 (s.f.)	TifTuf bermuda sod	TifTuf bermuda sod	Sod	Thick cut w/ dense root structure	refer to plans	
MISC.	Qty.	Item	Common Name	Size	Special Notes		
	1	Traffic Control	N/A	N/A		N/A	
	375 bales	Pinestraw	N/A	Bale	Thick even cover	refer to plans	
<b>TOTAL</b>							<b>77,991.13</b>

General Notes:  
 \*All existing plant material shall be removed unless otherwise noted on the landscape plans  
 \*Refer to plans for tree, shrub, sod prep, and installation details related to the project  
 \*All plant material and installation shall be warranted for 12 months from date of acceptance  
 \*All blanks on quote sheet shall be filled out completely i.e. unit cost, unit total, subtotal etc.  
 \*Refer to GDOT Special Provision 150 - Traffic Control

**Company Name:** Visionscapes, Inc  
**Address:** 1767 FELLOWSHIP RD TUCKER, GA 30084  
**Contact Person:** T.J. Scoggins  
**Phone Number:** 770-814-1674  
**Email Address:** tj@visionscapes.com  
**Signature:** TJ Scoggins

\*In case of discrepancy between the unit price and the total price on the completed Bid Schedule, the unit price will prevail, and the total price will be corrected.

Please see i  
 does not hav  
 staking kits,





# CITY OF TUCKER - FELLOWSHIP ROAD IMPROVEMENTS

Tucker, GA

## LANDSCAPE BID

DATE 10/18/23

		Description	Quantity	Unit	Price	Amount Dollars
<b>MISCELLANEOUS</b>						
<u>Staking</u>		2 Tree Staking Kits - Pro40G-Upto 4"Cal	36	Kit	\$ 27.68	\$ 996.48
<u>Fertilizer</u>		3 Mycorrhizal Inoculant	54	Bags	\$ 8.30	\$ 448.20
		4 Agriform 21g Tablet Fertilizer	1	Box	\$ 92.25	\$ 92.25
<u>Pre-Emergent</u>		5 Pre-Emergent	2	Bag	\$ 184.50	\$ 369.00
<u>Site Prep</u>		6 Traffic Control	1	Total	\$ 6,457.50	\$ 6,457.50
<u>Site Prep</u>		1 Water Occurances	15	Total	\$ 461.25	\$ 6,918.75
						\$ 15,282.18
<b>SOILS/AMENDMENTS</b>						
<u>Topsoil</u>		7 EP-Organic 60/40 Planting Soil	60	CuYd	\$ 56.58	\$ 3,394.80
						\$ 3,394.80
<b>SEED &amp; SOD</b>						
<u>Sod</u>		2 TifTuff 419 Bermuda	9,000	Sqft	\$ 0.89	\$ 8,010.00
						\$ 8,010.00

3 Fringetree/Southern 2.5" Multi (Quoting 8', Dormant Dig LIMITED) ✓

Holly

2	Each	\$	633.00	\$	1,266.00
6	Each	\$	411.45	\$	2,468.70
7	Each	\$	295.40	\$	2,067.80
4	Each	\$	316.50	\$	1,266.00
11	Each	\$	274.30	\$	3,017.30
6	Each	\$	516.95	\$	3,101.70
				\$	13,187.50

4 Holly/Savannah 7-8' ✓

Juniper

5 Juniper/Brodie 7-8'

Laurel

6 Laurel/Cherry 'Bright 'N Tight 7-8'

Redbud

7 Redbud/Merlot 2.5"

Serviceberry

8 Serviceberry/Autumn Brilliance 2.5" Multi

SHRUBS

Clethera

9 Clethera/Alnifolia 'Hummingbird Summersweet' 1 gal

Holly

175	Each	\$	19.08	\$	3,339.00
200	Each	\$	20.67	\$	4,134.00

10 Holly/Dwarf Yaupon 'Schillings' 3 gal



This is based on drawings provided BY TRC, PER PLANTING EXHIBIT DATED JANUARY 2022.

The price includes labor, materials, and tax.

The warranty is for one (1) year except in the case of neglect, damage by others, inadequate maintenance, and 'Acts of God'.

The grade is to be within 1/10th of a foot of final grade.

#### Irrigation

NO IRRIGATION PRICED

#### PROJECT SPECIFIC ASSUMPTIONS:

NO IRRIGATION PRICED

NO WARRANTY IF VSI DOESN'T MAINTAIN THE TREES.

#### PROJECT SPECIFIC EXCLUSIONS:

Erosion control

Tree protection

Irrigation repairs

Traffic control/Lane Closures

Cranes for hoisting unless priced above

Permits

Soil Amendments for sod areas not included

Hardscapes

Drains/drainage systems unless priced above

Biobarriers/edging/Root Barrier

Hydrovac'ing

#### General Conditions

All Proposals are good for 60 days of submittal date above. Pricing is changing every 15-30 days on Irrigation Materials and Freight.

ALL NOTES AND COMMENTS LISTED IN THIS PROPOSAL APPLY TOWARD THE CONTRACT.



Form **W-9**  
(Rev. October 2018)  
Department of the Treasury  
Internal Revenue Service

# Request for Taxpayer Identification Number and Certification

Give Form to the  
requester. Do not  
send to the IRS.

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type.  
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>VISIONSCAPES, INC</b>	
2 Business name/disregarded entity name, if different from above	
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):
<input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	<input type="checkbox"/> C Corporation <input checked="" type="checkbox"/> S Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Trust/estate Exempt payee code (if any) _____ Exemption from FATCA reporting code (if any) _____ <small>(Applies to accounts maintained outside the U.S.)</small>
5 Address (number, street, and apt. or suite no.) See instructions. <b>1767 FELLOWSHIP RD</b>	Requester's name and address (optional)
6 City, state, and ZIP code <b>TUCKER/GA/30084</b>	
7 List account number(s) here (optional)	

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

Social security number									
			-				-		
or									
Employer identification number									
5	8		-	1	8	2	9	9	8

## Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ► 	Date ► <b>10/24/2023</b>
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## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.





## EXHIBIT D

## CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

9/28/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION** IS **WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Yates, LLC 2800 Century Parkway NE Suite 300 Atlanta GA 30345-	<b>CONTACT NAME:</b>	
	<b>PHONE (A/C, No, Ext):</b> 404-633-4321	<b>FAX (A/C, No):</b> 404-633-1312
<b>INSURED</b> Visionscapes, Inc. 1767 Fellowship Rd Tucker GA 30084-	<b>E-MAIL ADDRESS:</b> certs@yatesins.com	
	<b>INSURER(S) AFFORDING COVERAGE</b>	
	<b>INSURER A:</b> Selective Way Insurance Company	
	<b>INSURER B:</b>	
	<b>INSURER C:</b>	
	<b>INSURER D:</b>	
<b>INSURER E:</b>		
<b>INSURER F:</b>		
<b>NAIC #</b> 26301		

## COVERAGES

CERTIFICATE NUMBER: 888081059

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> <b>COMMERCIAL GENERAL LIABILITY</b> <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input checked="" type="checkbox"/> LOC <input type="checkbox"/> OTHER:			S2236065	10/1/2023	10/1/2024	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 500,000 MED EXP (Any one person) \$ 15,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000 \$
A	<input checked="" type="checkbox"/> <b>AUTOMOBILE LIABILITY</b> <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS ONLY <input checked="" type="checkbox"/> NON-OWNED AUTOS ONLY			S2236065	10/1/2023	10/1/2024	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$
A	<input checked="" type="checkbox"/> <b>UMBRELLA LIAB</b> <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$ -0-			S2236065	10/1/2023	10/1/2024	EACH OCCURRENCE \$ 2,000,000 AGGREGATE \$ 2,000,000 \$
	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> Y / N <input checked="" type="checkbox"/> N / A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						<input type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	Leased/Rented Equipment			S2236065	10/1/2023	10/1/2024	\$1000Ded Per Item/Max \$200,000/\$500,000
A	Scheduled Equipment			S2236065	10/1/2023	10/1/2024	\$200,000

## DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Subject to policy terms, conditions, forms, and exclusions, the insurance coverages afforded by the policies above include the following when required by written contract for the certificate holder and/or entities listed below: Blanket Additional Insured in regards to General Liability for ongoing and completed operations and Automobile Liability; Blanket Primary and Non-Contributory in regards to General Liability and Automobile Liability; Blanket Waiver of Subrogation in regards to General Liability and Automobile Liability; Per Project Aggregate applies to the General Liability; Umbrella is subject to policy limits, forms, terms, conditions, and exclusions.

See Attached...

## CERTIFICATE HOLDER

## CANCELLATION

\*SAMPLE\*

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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# ADDITIONAL REMARKS SCHEDULE

Page 1 of 1

AGENCY Yates, LLC		NAMED INSURED Visionscapes, Inc. 1767 Fellowship Rd Tucker GA 30084-
POLICY NUMBER		
CARRIER	NAIC CODE	EFFECTIVE DATE:

## ADDITIONAL REMARKS

THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,

FORM NUMBER: 25 FORM TITLE: CERTIFICATE OF LIABILITY INSURANCE

### FORMS:

CG7300 0622 - ElitePac® General Liability Extension Endorsement  
 CG7988 0622 - Contracting, Installation, Service and Repair General Liability Extended ElitePac® Endorsement  
 CG2503 0509 - Designated Construction Project(s) General Aggregate Limit  
 CA7809 0423 - ElitePac® Commercial Automobile Extension  
 CX-0003 (01/99) - Schedule of Underlying Insurance and Limits



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

8/11/2023

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION** IS **WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> GIGA Solutions, Inc. 101 Plaza Real South Ste 201 Boca Raton FL 33432	<b>CONTACT NAME:</b> <b>PHONE (A/C, No, Ext):</b> 888-581-0807 <b>E-MAIL ADDRESS:</b> certs@gigasolves.com	<b>FAX (A/C, No):</b>
<b>INSURER(S) AFFORDING COVERAGE</b>		<b>NAIC #</b>
INSURER A : State National Insurance Company, Inc		12831
<b>INSURED</b> Evisionscapes, Inc Visionscapes, Inc 1767 Fellowship Road Tucker GA 30084	ALPHINC-01	INSURER B :
		INSURER C :
		INSURER D :
		INSURER E :
		INSURER F :

**COVERAGES****CERTIFICATE NUMBER:** 2118231450**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$
	OTHER:						\$
	<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO						BODILY INJURY (Per person) \$
	<input type="checkbox"/> OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS						BODILY INJURY (Per accident) \$
	<input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident) \$
							\$
	<b>UMBRELLA LIAB</b>						EACH OCCURRENCE \$
	<input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	DED <input type="checkbox"/> RETENTION \$						\$
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b>			AMX-093-0009-001	7/1/2023	7/1/2024	X PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/>
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	Y / N <input type="checkbox"/>	N / A				E.L. EACH ACCIDENT \$ 1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$ 1,000,000
							E.L. DISEASE - POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

**CERTIFICATE HOLDER****CANCELLATION**

Proof of Insurance

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

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This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Certificate No: **8210646 - 985949**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Connor Wolpert, Doritza Mojica, Gentry Stewart, Jennifer Godere, Jonathan Gleason, Joshua Sanford, Kathryn Pryor, Kyle Williams, Michelle Anne McMahon, Nicholas Miller, Richard Hackner, Robyn Salley, Sarah Murtha

all of the city of Hartford state of CT each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF**, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 22nd day of August, 2023.



Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

By: David M. Carey  
David M. Carey, Assistant Secretary

State of PENNSYLVANIA  
County of MONTGOMERY <sup>SS</sup>

On this 22nd day of August, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 28, 2025  
Commission number 1126044  
Member: Pennsylvania Association of Notaries

By: Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

### ARTICLE IV – OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

### ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 20th day of October, 2023.



By: Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.





## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

<b>Contractor Name:</b>	VISIONSCAPES, INC
<b>Subcontractor's (Your) Name</b>	FRANK COLEMAN
<b>Solicitation/Bid number or Project Description:</b>	ITB #2023-027 FELLOWSHIP ROAD LANDSCAPING IMPROVEMENTS

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91 (b) and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91 (b). Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

VISIONSCAPES, INC

Name of Subcontractor

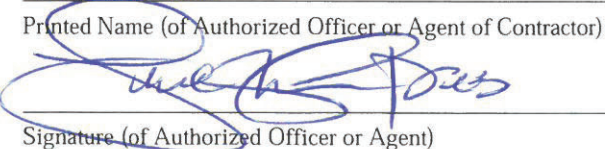
04/15/2010

Date of Authorization

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)

  
Signature (of Authorized Officer or Agent)

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023  
Elizabeth L Boot  
Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024







# GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Solicitation/Bid number or Project Description:	ITB #2023-027 FELLOWSHIP ROAD LANDSCAPING IMPROVEMENTS

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

VISIONSCAPES, INC

Name of Contractor

4/15/2010

Date of Authorization

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)

Signature (of Authorized Officer or Agent)

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

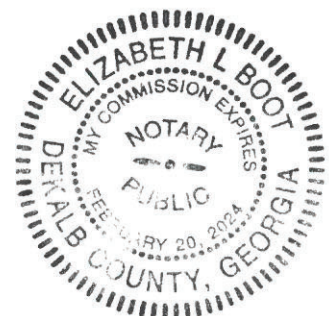
SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023

Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024



## Contact Information Form

Please fill out this sheet with the appropriate contact information for your company.

Full Legal Name of Company: VISIONSCAPES, INC

Contractor Information:

Primary Contact Person: FRANK COLEMAN

Title: PRESIDENT Telephone Number: 678-878-5164

Secondary Contact Person: STACEY FICZCO

Title: SVP LANDSCAPE Telephone Number: 678-859-4919

Address: 1767 FELLOWSHIP RD

City / State / Zip: TUCKER/GA/30084

Mailing Address (If different than above): \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

E-mail Address: FRANKCOLEMAN@EVISIONSCAPES.COM

Federal Employee ID Number (FEIN): 58-1829998

## EXHIBIT G

# CITY OF TUCKER

### ACKNOWLEDGE RECEIPT OF ADDENDUM #1 FORM

**ITB 2023-027**

**Fellowship Road Landscape Improvements**

**Upon receipt, please print and add to your proposal.**

**I hereby acknowledge receipt of the supplement pertaining to the  
above referenced bid.**

**COMPANY NAME:** VISIONSCAPES, INC

**CONTACT PERSON:** FRANK COLEMAN

**ADDRESS:** 1767 FELLOWSHIP RD

**CITY:** TUCKER

**STATE:** Ga

**ZIP:** 30084

**PHONE:** 770-908-8999

**FAX:** 770-908-8110

**EMAIL ADDRESS:** tj@evisionscapes.com

TJ Scoggins

10/24/2023

**SIGNATURE**

**DATE**

**ITB 2023-027****ADDENDUM #1**

	<b>QUESTION</b>	<b>ANSWER</b>
1	I wanted to reach out during the open question period regarding the bid and performance bonds. Are these required for both the Fellowship Road and Lawrenceville Hwy projects?	A bid bond is not required. A performance bond is required for projects exceeding \$100,000.
2	Do all the medians contain power lines? Can the City provide information regarding location, depth, and whether the power cables are safe from being disturbed by demolition/ clearing of trees & shrubs? If there is an expense related to the disconnection of power, will the contractor be responsible for this expense?	There is no power in the Fellowship Road median, however the contractor is required to call in a utility locate.
3	Do the medians contain irrigation? If so, Can the City provide information regarding location, depth, and whether the irrigation lines are safe from being disturbed by demolition/ clearing of trees & shrubs?	There is no existing or proposed irrigation.
4	The ITB states that the contractor is responsible for "replacement of dead materials." Does this have any exclusions (for example, vandalism or accidental loss due to traffic)?	After acceptance of the installation, the contractor is not responsible for vandalism or traffic damage during the one-year maintenance period.
5	Page 9 of the Landscape Plans calls for Mulch at a depth of 3". Pages 10 & 11 of the Plans calls for 4" mulch depth. Could you please clarify?	Use 4" of mulch.
6	Total mulch is scheduled for 15,026 SF. If there is a shortage based on specifications, how will this be billed?	No mulch, but pine straw is included in Exhibit B. This is a unit price bid. Invoicing will be verified and billed based on quantities placed.
7	Please confirm that the City will clear and grade the site as stated in "Special Conditions". Will the site be removed of all plant material including turf and	Yes, the City will clear the site. Topsoil will not be installed by the City.

## ITB 2023-027

### ADDENDUM #1

	weeds? If removed, will topsoil be replaced by the City?	
8	If the City clears the site, will the City be installing erosion control measures? Will the City maintain erosion materials through the duration of the installation?	The City will install temporary erosion control measures.
9	The ITB states that the contractor is responsible for “replacement of dead materials”. Does this have any exclusions (for example, vandalism, accidental loss due to traffic, pedestrian, or animal damage)?	After acceptance of the installation, the contractor is not responsible for vandalism or traffic damage during the one-year maintenance period.
10	Has soil testing been done at the site? If so, will you please share these results?	No soil testing has been done.
11	Are there any Utility or Communication lines that will be disturbed by the installation of trees and shrubs? If so, will you please provide location and depth information? Will the contractor be responsible for costs relating to the disconnection of said lines?	There are no known underground utilities, however the contractor is required to call in a utility locate.



STATE OF GEORGIA

CITY OF TUCKER

RESOLUTION R2023-11-24

**A RESOLUTION TO APPROVE A CONTRACT FOR THE FELLOWSHIP ROAD  
LANDSCAPE IMPROVEMENTS PROJECT ITB #2023-027**

**WHEREAS**, the Mayor and Council of the City of Tucker are authorized to approve contracts in furtherance of providing governmental services; and

**WHEREAS**, the City of Tucker has complied with the provisions of Title 32 of the O.C.G.A. by causing an invitation to bid to be published and bids received; and

**WHEREAS**, the City has determined through careful review that the lowest reliable bidder in response to said invitation is Visionscapes; and

**WHEREAS**, the Mayor and Council wish to see the streets and roads maintained in a state of good repair and the construction of sidewalks.

**NOW, THEREFORE, BE IT RESOLVED** by the Mayor and Council of the City of Tucker while at a regular meeting on November 13, 2023 that by passage of this Resolution contract C2023-027-PO24-618 is hereby approved by the governing authority.

APPROVED:

\_\_\_\_\_  
Frank Auman, Mayor

ATTEST:

\_\_\_\_\_  
Bonnie Warne, City Clerk

(seal)

## Contact Information Form

Please fill out this sheet with the appropriate contact information for your company.

Full Legal Name of Company: VISIONSCAPES, INC

Contractor Information:

Primary Contact Person: FRANK COLEMAN

Title: PRESIDENT Telephone Number: 678-878-5164

Secondary Contact Person: STACEY FICZCO

Title: SVP LANDSCAPE Telephone Number: 678-859-4919

Address: 1767 FELLOWSHIP RD

City / State / Zip: TUCKER/GA/30084

Mailing Address (If different than above): \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

E-mail Address: FRANKCOLEMAN@EVISIONSCAPES.COM

Federal Employee ID Number (FEIN): 58-1829998

# Request for Taxpayer Identification Number and Certification

Give Form to the  
requester. Do not  
send to the IRS.

► Go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9) for instructions and the latest information.

Print or type.  
See Specific Instructions on page 3.

1 Name (as shown on your income tax return). Name is required on this line; do not leave this line blank. <b>VISIONSCAPES, INC</b>		
2 Business name/disregarded entity name, if different from above		
3 Check appropriate box for federal tax classification of the person whose name is entered on line 1. Check only <b>one</b> of the following seven boxes.  <input type="checkbox"/> Individual/sole proprietor or single-member LLC <input type="checkbox"/> Limited liability company. Enter the tax classification (C=C corporation, S=S corporation, P=Partnership) ► <b>Note:</b> Check the appropriate box in the line above for the tax classification of the single-member owner. Do not check LLC if the LLC is classified as a single-member LLC that is disregarded from the owner unless the owner of the LLC is another LLC that is not disregarded from the owner for U.S. federal tax purposes. Otherwise, a single-member LLC that is disregarded from the owner should check the appropriate box for the tax classification of its owner. <input type="checkbox"/> Other (see instructions) ►	4 Exemptions (codes apply only to certain entities, not individuals; see instructions on page 3):  Exempt payee code (if any) _____  Exemption from FATCA reporting code (if any) _____  <small>(Applies to accounts maintained outside the U.S.)</small>	
5 Address (number, street, and apt. or suite no.) See instructions. <b>1767 FELLOWSHIP RD</b>	Requester's name and address (optional)	
6 City, state, and ZIP code <b>TUCKER/GA/30084</b>		
7 List account number(s) here (optional)		

## Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on line 1 to avoid backup withholding. For individuals, this is generally your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the instructions for Part I, later. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN*, later.

**Note:** If the account is in more than one name, see the instructions for line 1. Also see *What Name and Number To Give the Requester* for guidelines on whose number to enter.

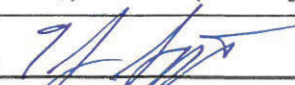
Social security number								
			-					
or								
Employer identification number								
5	8		-	1	8	2	9	9
							9	8

## Part II Certification

Under penalties of perjury, I certify that:

- The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me); and
- I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding; and
- I am a U.S. citizen or other U.S. person (defined below); and
- The FATCA code(s) entered on this form (if any) indicating that I am exempt from FATCA reporting is correct.

**Certification instructions.** You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the certification, but you must provide your correct TIN. See the instructions for Part II, later.

Sign Here	Signature of U.S. person ► 	Date ► <b>10/24/2023</b>
-----------	--	--------------------------

## General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

**Future developments.** For the latest information about developments related to Form W-9 and its instructions, such as legislation enacted after they were published, go to [www.irs.gov/FormW9](http://www.irs.gov/FormW9).

## Purpose of Form

An individual or entity (Form W-9 requester) who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) which may be your social security number (SSN), individual taxpayer identification number (ITIN), adoption taxpayer identification number (ATIN), or employer identification number (EIN), to report on an information return the amount paid to you, or other amount reportable on an information return. Examples of information returns include, but are not limited to, the following.

- Form 1099-INT (interest earned or paid)

- Form 1099-DIV (dividends, including those from stocks or mutual funds)
- Form 1099-MISC (various types of income, prizes, awards, or gross proceeds)
- Form 1099-B (stock or mutual fund sales and certain other transactions by brokers)
- Form 1099-S (proceeds from real estate transactions)
- Form 1099-K (merchant card and third party network transactions)
- Form 1098 (home mortgage interest), 1098-E (student loan interest), 1098-T (tuition)
- Form 1099-C (canceled debt)
- Form 1099-A (acquisition or abandonment of secured property)

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN.

If you do not return Form W-9 to the requester with a TIN, you might be subject to backup withholding. See What is backup withholding, later.



ITB #2023-027  
**Fellowship Road Landscape Improvements**  
**Exhibit B: Unit Price Bid Proposal**

ITB #2023-027 - Fellowship Road Landscape Improvements							
Shrubs	Qty.	Scientific Name	Common Name	Size	Special Notes	Spacing	Unit Cost
	175	Clethra alnifolia 'Hummingbird'	Hummingbird' Summersweet	1 gal	Full, Vigorous	36" O.C.	
	360	Ilex verticillata 'Nana'	Nana' Red Sprite	1 gal	Full, Vigorous	30" O.C.	
	345	Itea virginica 'Little Henry'	Little Henry' Sweetspire	1 gal	Full, Vigorous	36" O.C.	
	205	Hypericum frondosum	Shrubby St. Johns Wort	1 gal	Full, Vigorous	24" O.C.	
	200	Ilex vomitoria 'Schillings'	Mrs. Schiller's Delight Viburnum	3 gal	Full, Vigorous	48" O.C.	
	180	Ceanothus americanus	Mrs. Schiller's Delight Viburnum	3 gal	Upright, Full, Vigorous	48" O.C.	
	165	Viburnum obovatum	Mrs. Schiller's Delight Viburnum	3 gal	Full, Vigorous	36" O.C.	
	6	Amelanchier x grandiflora 'Autumn Brilliance'	Autumn Brilliance Dogwood	2.5" cal.	Multi-trunk, 2 min., Full and well branched	15' O.C.	
	11	Cercis x 'Merlot'	Merlot Redbud	2.5" cal.	Straight single trunk, Strong central leader, Well branched	15' O.C.	
	2	Chionanthus virginicus	Southern Fringe Tree	2.5" cal.	Multi-trunk, 2 min., Full and well branched	15' O.C.	
	4	Prunus caroliniana 'Monus'	Bright n Tight Cherry Laurel	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
	7	Juniperus virginiana 'Brodie'	Brodie Cedar	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
	6	Ilex x attenuata 'Savannah'	Savannah Holly	7'-8' HT.	Upright, Full, Vigorous	10' O.C.	
Grass	Qty.	Scientific Name	Common Name	Size	Special Notes		
	9000 (s.f.)	TifTuf bermuda sod	TifTuf bermuda sod	Sod	Thick cut w/ dense root structure	refer to plans	
MISC.	Qty.	Item	Common Name	Size	Special Notes		
	1	Traffic Control	N/A	N/A		N/A	
	375 bales	Pinestraw	N/A	Bale	Thick even cover	refer to plans	
<b>TOTAL</b>							<b>77,991.13</b>

General Notes:  
 \*All existing plant material shall be removed unless otherwise noted on the landscape plans  
 \*Refer to plans for tree, shrub, sod prep, and installation details related to the project  
 \*All plant material and installation shall be warranted for 12 months from date of acceptance  
 \*All blanks on quote sheet shall be filled out completely i.e. unit cost, unit total, subtotal etc.  
 \*Refer to GDOT Special Provision 150 - Traffic Control

**Company Name:** Visionscapes, Inc  
**Address:** 1767 FELLOWSHIP RD TUCKER, GA 30084  
**Contact Person:** T.J. Scoggins  
**Phone Number:** 770-814-1674  
**Email Address:** tj@visionscapes.com  
**Signature:** TJ Scoggins

\*In case of discrepancy between the unit price and the total price on the completed Bid Schedule, the unit price will prevail, and the total price will be corrected.

Please see i  
 does not hav  
 staking kits,



# CITY OF TUCKER - FELLOWSHIP ROAD IMPROVEMENTS

Tucker, GA

## LANDSCAPE BID

DATE 10/18/23

		Description	Quantity	Unit	Price	Amount Dollars
MISCELLANEOUS						
Staking		2 Tree Staking Kits - Pro40G-Upto 4"Cal	36	Kit	\$ 27.68	\$ 996.48
Fertilizer		3 Mycorrhizal Inoculant	54	Bags	\$ 8.30	\$ 448.20
		4 Agriform 21g Tablet Fertilizer	1	Box	\$ 92.25	\$ 92.25
Pre-Emergent		5 Pre-Emergent	2	Bag	\$ 184.50	\$ 369.00
Site Prep		6 Traffic Control	1	Total	\$ 6,457.50	\$ 6,457.50
Site Prep		1 Water Occurances	15	Total	\$ 461.25	\$ 6,918.75
						\$ 15,282.18

## SOILS/AMENDMENTS

### Topsoil

7 EP-Organic 60/40 Planting Soil	60	CuYd	\$ 56.58	\$ 3,394.80
				<b>\$ 3,394.80</b>

## SEED & SOD

### Sod

2 TifTuff 419 Bermuda	9,000	Sqft	\$ 0.89	\$ 8,010.00
				<b>\$ 8,010.00</b>

## TREES

### Fringetree



3 Fringetree/Southern 2.5" Multi (Quoting 8' Dormant Dig LIMITED) ✓

Holly

Juniper

Laurel

Redbud

Serviceberry

4 Holly/Savannah 7-8'	✓	2	Each \$	633.00	\$	1,266.00
5 Juniper/Brodie 7-8'		6	Each \$	411.45	\$	-
6 Laurel/Cherry 'Bright 'N Tight 7-8'		7	Each \$	295.40	\$	2,468.70
7 Redbud/Merlot 2.5"		4	Each \$	316.50	\$	-
8 Serviceberry/Autumn Brilliance 2.5" Multi		11	Each \$	274.30	\$	2,067.80
		6	Each \$	516.95	\$	-
					\$	3,101.70
					\$	13,187.50

SHRUBS

Clethera

Holly

9 Clethera/Alnifolia 'Hummingbird Summersweet' 1 gal

10 Holly/Dwarf Yaupon 'Schillings' 3 gal

175	Each \$	19.08	\$	3,339.00
200	Each \$	20.67	\$	-
			\$	4,134.00



This is based on drawings provided BY TRC, PER PLANTING EXHIBIT DATED JANUARY 2022.

The price includes labor, materials, and tax.

The warranty is for one (1) year except in the case of neglect, damage by others, inadequate maintenance, and 'Acts of God'.

The grade is to be within 1/10th of a foot of final grade.

#### Irrigation

NO IRRIGATION PRICED

#### PROJECT SPECIFIC ASSUMPTIONS:

NO IRRIGATION PRICED

NO WARRANTY IF VSI DOESN'T MAINTAIN THE TREES.

#### PROJECT SPECIFIC EXCLUSIONS:

Erosion control

Tree protection

Irrigation repairs

Traffic control/Lane Closures

Cranes for hoisting unless priced above

Permits

Soil Amendments for sod areas not included

Hardscapes

Drains/drainage systems unless priced above

Biobarriers/edging/Root Barrier

Hydrovac'ing

#### General Conditions

All Proposals are good for 60 days of submittal date above. Pricing is changing every 15-30 days on Irrigation Materials and Freight.

ALL NOTES AND COMMENTS LISTED IN THIS PROPOSAL APPLY TOWARD THE CONTRACT.

## **BID BOND**

KNOW ALL MEN BY THESE PRESENTS, THAT

(Name of Contractor) Visionscapes, Inc. at

(Address of Contractor) 1767 Fellowship Road, Tucker, GA 30084

(Corporation, Partnership and / or Individual) hereinafter called Principal, and

(Name of Surety) The Ohio Casualty Insurance Company

(Address of Surety) 175 Berkeley Street, Boston, MA 02116

A corporation of the State of New Hampshire, and a surety authorized by law to do business in the State of Georgia, hereinafter called Surety, are held, and firmly bound unto

(Name of Obligee) City of Tucker Georgia

(Address of Obligee) 1975 Lakeside Parkway, Suite 350, Tucker, Georgia 30084

Hereinafter referred to as Obligee, in the penal sum of Five Percent of Amount Bid  
 Dollars (\$ 5%) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

WHEREAS, the Principal is about to submit, or has submitted, to the City of Tucker, Georgia, a proposal for furnishing materials, labor, and equipment for:

### **ITB # 2023-027 FELLOWSHIP ROAD LANDSCAPING IMPROVEMENTS**

WHEREAS, the Principal desires to file this Bond in accordance with law in lieu of a certified Bidder's check otherwise required to accompany this Proposal.

NOW, THEREFORE, the conditions of this obligation are such that if the bid is accepted, the Principal shall within ten days after receipt of notification of the acceptance execute a Contract in accordance with the Bid and upon the terms, conditions, and prices set forth in the form and manner required by the City of Tucker, Georgia, and execute a sufficient and satisfactory Performance Bond and Payment Bond payable to the City of Tucker, Georgia, each in an amount of 100% of the total Contract Price, in form and with security satisfactory to said the City of Tucker, Georgia, and otherwise, to be and remain in full force and virtue in law; and the Surety shall, upon failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the City of Tucker, Georgia,



upon demand, the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

PROVIDED, FURTHER, that Principal and Surety agree and represent that this bond is executed pursuant, to and in accordance with the applicable provisions of the Official Code of Georgia Annotated, as Amended, including, but not limited to, O.C.G.A. SS 13-10-1, et. Seg. And SS 36- 86-101, et. Seg. And is intended to be and shall be constructed as a bond in compliance with the requirements thereof.

Signed, sealed, and dated this 20th day of October A.D., 2023.

ATTEST:

  
\_\_\_\_\_  
(Principal Secretary)

(SEAL)

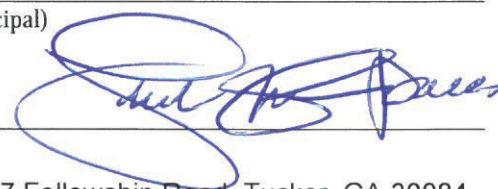
  
\_\_\_\_\_  
(Witness to Principal)

1767 Fellowship Rd Tucker Ga 30084  
\_\_\_\_\_  
(Address)

Visionscapes, Inc.

(Principal)

BY:



1767 Fellowship Road, Tucker, GA 30084  
\_\_\_\_\_  
(Address)

The Ohio Casualty Insurance Company  
\_\_\_\_\_  
(Surety)

ATTEST:

BY:

  
\_\_\_\_\_  
(Attorney-in-Fact) ~~and Notary Agent~~

Michelle Anne McMahon, Attorney-in-Fact  
\_\_\_\_\_  
(Attorney-in-Fact)

175 Berkeley Street, Boston, MA 02116  
\_\_\_\_\_  
(Address)

(SEAL)

(Witness as to Surety)

  
\_\_\_\_\_  
(Witness as to Surety)

Jonathan Gleason, Witness  
\_\_\_\_\_





This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

Certificate No: **8210646 - 985949**

## POWER OF ATTORNEY

**KNOWN ALL PERSONS BY THESE PRESENTS:** That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Connor Wolpert, Doritza Mojica, Gentry Stewart, Jennifer Godere, Jonathan Gleason, Joshua Sanford, Kathryn Pryor, Kyle Williams, Michelle Anne McMahon, Nicholas Miller, Richard Hackner, Robyn Salley, Sarah Murtha

all of the city of Hartford state of CT each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

**IN WITNESS WHEREOF**, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed thereto this 22nd day of August, 2023.



Liberty Mutual Insurance Company  
The Ohio Casualty Insurance Company  
West American Insurance Company

By: David M. Carey  
David M. Carey, Assistant Secretary

State of PENNSYLVANIA  
County of MONTGOMERY ss

On this 22nd day of August, 2023 before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

**IN WITNESS WHEREOF**, I have hereunto subscribed my name and affixed my notarial seal at Plymouth Meeting, Pennsylvania, on the day and year first above written.



Commonwealth of Pennsylvania - Notary Seal  
Teresa Pastella, Notary Public  
Montgomery County  
My commission expires March 28, 2025  
Commission number 1126044  
Member: Pennsylvania Association of Notaries

By: Teresa Pastella  
Teresa Pastella, Notary Public

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

### ARTICLE IV – OFFICERS: Section 12. Power of Attorney.

Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority.

### ARTICLE XIII – Execution of Contracts: Section 5. Surety Bonds and Undertakings.

Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary.

**Certificate of Designation** – The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-in-fact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

**Authorization** – By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked.

**IN TESTIMONY WHEREOF**, I have hereunto set my hand and affixed the seals of said Companies this 20th day of October, 2023.



By: Renee C. Llewellyn  
Renee C. Llewellyn, Assistant Secretary

Not valid for mortgage, note, loan, letter of credit, currency rate, interest rate or residual value guarantees.

For bond and/or Power of Attorney (POA) verification inquiries, please call 610-832-8240 or email HOSUR@libertymutual.com.





## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Subcontractor's (Your) Name	FRANK COLEMAN
Solicitation/Bid number or Project Description:	ITB #2023-027 FELLOWSHIP ROAD LANDSCAPING IMPROVEMENTS

By executing this affidavit, the undersigned subcontractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned subcontractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91 (b) and the undersigned subcontractor will contract for the physical performance of services in satisfaction of such contract only with sub-subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91 (b). Subcontractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

VISIONSCAPES, INC

Name of Subcontractor

04/15/2010

Date of Authorization

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)

[Signature]  
Signature (of Authorized Officer or Agent)

PRESIDENT

Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

24 DAY OF October, 2023  
Elizabeth L Boot  
Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024





## GEORGIA SECURITY AND IMMIGRATION COMPLIANCE ACT AFFIDAVIT

**GEORGIA E-Verify and Public Contracts: The Georgia E-Verify law requires contractors and all sub-contractors on Georgia public contract (contracts with a government agency) for the physical performance of services over \$2,499 in value to enroll in E-Verify, regardless of the number of employees.**

Contractor Name:	VISIONSCAPES, INC
Solicitation/Bid number or Project Description:	ITB #2023-027 FELLOWSHIP ROAD LANDSCAPING IMPROVEMENTS

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. § 13-10-91, stating affirmatively that the individual, entity or corporation which is engaged in the physical performance of services under a contract on behalf of the City of Tucker, Georgia has registered with, is authorized to use and uses the federal work authorization program commonly known as E-Verify, or any subsequent replacement program, in accordance with the applicable provisions and deadlines established in O.C.G.A. § 13-10-91.

Furthermore, the undersigned contractor will continue to use the federal work authorization program throughout the contract period as required by O.C.G.A. § 13-10-91(b) and the undersigned contractor will contract for the physical performance of services in satisfaction of such contract only with subcontractors who present and affidavit to the contractor with the information required by O.C.G.A. § 13-10-91(b). Contractor hereby attests that its federal work authorization user identification number and date of authorization are as follows:

154057

Federal Work Authorization User Identification Number  
(EEV/E-Verify Company Identification Number)

VISIONSCAPES, INC

Name of Contractor

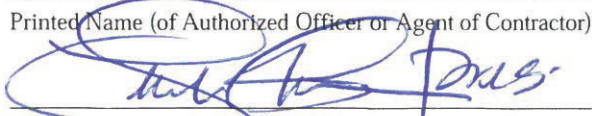
4/15/2010

Date of Authorization

**I hereby declare under penalty of perjury that the foregoing is true and correct**

FRANK COLEMAN

Printed Name (of Authorized Officer or Agent of Contractor)



Signature (of Authorized Officer or Agent)

PRESIDENT

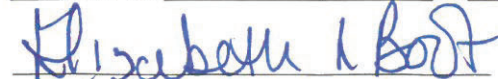
Title (of Authorized Officer or Agent of Contractor)

10/24/2023

Date Signed

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

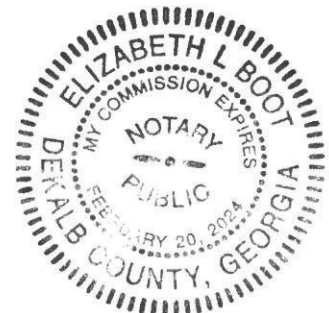
24 DAY OF October, 2023



Notary Public

[NOTARY SEAL]

My Commission Expires: 20 February 2024





**RFP #2023-027**

**FELLOWSHIP RD LANDSCAPE IMPROVEMENTS**

**BID SUBMISSION SHEET**

**The listed firms below submitted bids which were turned in at the time indicated.  
Any bid or proposal submitted after the due date and time may not be considered for award.**

<b><u>COMPANY</u></b>	<b><u>RECEIVED</u></b>	<b><u>BID AMOUNT</u></b>
1. Visionscapes, Inc.	10/24/2023 10:54 AM	\$ 77,991.13
2. Yellowstone Landscape Company	10/24/2023 12:58 PM	<del>\$154,576.00</del> <b>\$154,552.48</b>
3. Georgia Green Landscaping	10/24/2023 12:59 PM	\$125,747.50
4. Tri Scapes, Inc.	10/24/2023 1:13 PM (LATE)	\$121,074.65
5. Crabapple Turf Management, Inc.	10/24/2023 3:15 PM (LATE)	<del>\$110,624.66</del> <b>\$110,625.52</b>

Opened/Verified by: Beverly Hilton 10/24/2023

Ken Hildebrandt



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ken Hildebrandt, City Engineer  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for Contract Award for Idlewood Road @ Fellowship Road Roundabout Design

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### **Description for on the Agenda:**

Contract Award for Idlewood Road @ Fellowship Road Roundabout Design

### **Issue:**

Award of Task Order for Idlewood Road @ Fellowship Road Roundabout Design.

### **Recommendation:**

Staff recommends that the task order be awarded to Kimley Horn in the amount of \$188,615.

### **Background:**

Kimley Horn performed the previous traffic analysis at this intersection which recommends a roundabout. The preliminary concept design is attached.

### **Summary:**

The project scope includes surveying, a public information meeting, engineering design, a lighting plan, and educational materials on roundabouts.

### **Financial Impact:**

\$100,000 would be funded from a capital project account specifically for this intersection (CE2208; GL #300-4100.-54.12000). The remaining \$88,615 would be funded from the capital account for North/South Connectivity Improvements (CE2406; GL #300-4100-54.14000).





**PROFESSIONAL ENGINEERING SERVICES  
CONTRACT AGREEMENT (RFQ #2022-018)  
TASK ORDER #12  
IDLEWOOD ROAD AT FELLOWSHIP ROAD ROUNDABOUT  
SCOPE OF SERVICES**

This TASK ORDER between the parties is entered pursuant to the CONTRACT AGREEMENT (RFQ #2022-018) and shall serve as authorization by the City of Tucker (“City” or “Client”) to Kimley-Horn & Associates, Inc. (“CONSULTANT”) to perform the services described herein pursuant to the terms and conditions, mutual covenants and promises provided herein and in the CONTRACT AGREEMENT (RFQ #2022-018). Now therefore, the parties agree as follows:

**Location of Project:**

- Intersection of Idlewood Road at Fellowship Road

**Description of Services:** The services to be performed by the CONSULTANT pursuant to this TASK ORDER (the “WORK”), include, but are not limited, to the following: data collection, site visit, existing conditions evaluation, project identification and prioritization, concept design, neighborhood outreach, and final report documents, further described in the Kimley-Horn proposal attached as Attachment A.

**CONSULTANT Deliverables to CITY**

All electronic documents, project files, material invoices, photographs, and meeting summaries associated with this project

**Design Specifications and Guidelines:** The scope of services included in Attachment A will be performed on an hourly basis utilizing the previously approved rates from RFQ #2022-018 with a Not to Exceed amount as follows: **\$188,615.00**

This TASK ORDER is subject to the terms and conditions of the original CONTRACT AGREEMENT (RFQ #2022-018) entered between the parties.

**General Scope of Service:** The WORK under this TASK ORDER is to be commenced upon receipt of “Notice to Proceed” (NTP). The WORK will be completed within 120 calendar days after Notice to Proceed.

The CONSULTANT shall prepare a schedule showing milestone completion dates based on

completing the WORK within 10 calendar days (hereinafter referred to as the “Schedule for Completion”), excluding City review time. The Schedule for Completion will be revised to reflect the actual NTP date and will be updated as required throughout the project duration.

Every 30 days commencing with the execution of the TASK ORDER, the CONSULTANT shall submit a report which shall include, but not be limited to, a narrative describing actual work accomplished during the reporting period, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, and any newly planned activities or changes in sequence (hereinafter referred to as “Narrative Report”). No invoice for payment shall be submitted and no payment whatsoever will be made to the CONSULTANT until the Schedule for Completion, and the completion of Narrative Reports are updated and submitted to the City. Payment of each invoice will be made to the CONSULTANT within 35 days of receipt. In no event shall payment be made more often than once every 30 days.

The CONSULTANT shall coordinate and attend periodic meetings with the CITY regarding the status of the TASK ORDER. The CONSULTANT shall submit transmittals of all correspondence, telephone conversations, and minutes of project meetings.

The CONSULTANT shall accomplish all of the pre-construction activities for the TASK ORDER as part of the WORK. The pre-construction activities shall be accomplished in accordance with the all local codes and ordinances (where applicable), the applicable guidelines of the American Association of State Highway and Transportation Officials (AASHTO), current edition, the GDOT’s Standard Specifications Construction of Roads and Bridges, current edition, the Manual on Uniform Traffic Control Devices (MUTCD), current edition, TASK ORDER schedules, and applicable guidelines of the Georgia Department of Transportation.

The CONSULTANT agrees that all reports, plans, drawings studies, specifications, estimates, maps, computations, computer diskettes and printouts and any other data prepared under the terms of this TASK ORDER shall become the property of the City. This data shall be organized, indexed, bound and delivered to the City no later than the advertisement of the PROJECT for letting. The City shall have the right to use this material without restriction or limitation and without compensation to the CONSULTANT.

The CONSULTANT shall be responsible for the professional quality, technical accuracy, and the coordination of interpreting all designs, drawings, specifications, and other services furnished by or on behalf of the City pursuant to this TASK ORDER, to the degree of care and skill ordinarily exercised, under similar circumstances, by reputable members of its profession in the same locality at the time the WORK is provided. The CONSULTANT shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this TASK ORDER. All revisions shall be coordinated with the CITY prior to issuance. The CONSULTANT shall also be responsible for any claim, damage, loss or expense resulting from the incorrect interpretation of provided designs, drawings, and specifications pursuant to this TASK ORDER.

For each “Phase” enumerated in “Design Specifications and Guidelines,” the fees shall be paid

for such phase as provided however, CONSULTANT agrees that fees are earned pursuant to the WORK performed, which in no event shall exceed the amount set forth in the attached Fee Schedule and which hourly rate shall in no event exceed that provided in the Contract Agreement. Accordingly, invoices shall be submitted pursuant to completion of the Work performed based upon percentage completion of the relevant Phase.

**Attachments:**

Attachment A – Kimley-Horn Proposal

Attachment B – T2 Utility Engineers Scope of Services

CONSULTANT: KIMLEY HORN

CITY:

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

## **ATTACHMENT A**

**TO:**

**PROFESSIONAL ENGINEERING SERVICES  
CONTRACT AGREEMENT (RFQ #2022-018)**

**TASK ORDER #12**

**Idlewood Road at Fellowship Road Roundabout Improvements**

### **Project Understanding**

The City of Tucker is seeking to complete improvements at the signalized intersection of Idlewood Road and Fellowship Road. The Client seeks to replace the existing traffic signal and construct a roundabout at this intersection. The roundabout design should consider bikes, pedestrians, school buses, trucks, and emergency vehicles while verifying a WB-50 as the check vehicle. The Client also seeks public involvement support via an open house with educational materials tailored to roundabouts.

### **Scope of Services**

Kimley-Horn will perform the following scope of services:

#### **Task 1 – Project Management and Meetings**

Up to two Kimley-Horn staff will attend a kickoff meeting with the Client. Up to two Kimley-Horn staff will attend up to eight (8) monthly status meetings with the Client during this task order. Kimley-Horn will prepare an agenda and meeting minutes for each of these meetings, which will be distributed to meeting attendees.

Kimley-Horn will conduct one site visit with up to two staff to assess site conditions and project constraints.

Task 1 also includes general project management and tasks such as monthly invoicing, internal coordination meetings, contracting, and project administrative activities.

#### **Task 2 – Public Involvement**

Kimley-Horn will attend one public information meeting for the subject intersection. The meeting will have a focus on gathering feedback on the recommended improvements from those in attendance. Meeting date, time, and location will be determined in coordination with the Client. The Client will have primary responsibility for meeting invitations and advertising. Kimley-Horn will support with the development of educational roundabout materials, such as informational handouts and scaled demonstrations of roundabout operations.

Up to four (4) Kimley-Horn staff will attend the public information meeting, and Kimley-Horn will keep notes at the meeting and summarize the results of the meeting for documentation purposes. Kimley-Horn will develop meeting agendas, maps, activity materials, and feedback cards.

### Task 3 – Survey Database and Acquisition Plats

Topographic survey and up to 7 parcel acquisition plats will be completed by T2 Utility Engineers. Refer to Attachment B for survey Scope of Services.

### Task 4 – Construction Plans

Kimley-Horn will prepare construction plans for the improvements described above, utilizing the previously prepared concept layout. Kimley-Horn will perform concept validation for the concept layout provided and make adjustments as necessary. A complete design checks package will be performed for school buses, trucks, and emergency vehicles to document the performance metrics for the roundabout design. The roadway construction plans will consist of the following:

- Cover Sheet
- Index
- General Notes
- Typical Sections
- Construction Layout
- Mainline Plan
- Roadway Profiles
- Driveway Profiles
- Special Grading
- Drainage Profiles
- Staging Plans
- Cross Sections
- Utility Plan
  - Kimley-Horn will prepare first and second utility submittals to all known utility providers to request verification of locations of existing utilities as well as identifying proposed relocations.
- Lighting Plans
  - Kimley-Horn will prepare a photometric analysis for the roundabout and pedestrian crosswalks to facilitate the placement of roadway lighting. Lighting plans will be prepared for inclusion in construction plans and will include necessary details, such as single line diagrams, foundation details, etc. Kimley-Horn will coordinate with the utility provider for service point location and will prepare voltage drop calculations and wiring schedule.
- Signing and Pavement Marking Plan
- R/W and Easement Plats (include any T2 surveyor scope)
- NPDES Erosion Control Plans
  - Cover
  - ESPCP General Notes
  - Erosion Control Drainage Area Map
  - BMP Locations



- Watershed Map

An opinion of probable construction cost (OPCC) estimate will be developed based on the construction plans.

Kimley-Horn will submit construction plans and OPCC to the City of Tucker Engineer for review at 60% completion and final plans. Kimley-Horn will respond to comments and make plan revisions for up to one (1) round of comments for each submittal. The Client will prepare general bidding documents and will be responsible for bid advertisement.

It is assumed the disturbed area is greater than one (1) acre, therefore a Notice of Intent (NOI) is required and formal Erosion, Sedimentation, and Pollution Control (ES&PC) Plans and related calculations will be completed. The final construction documents will be submitted to Environmental Protection Division (EPD) for review. Kimley-Horn will conduct the required Design Professional Seven Day Inspection and provide the required documentation for the site visit to be kept on file on site by the Contractor. Kimley-Horn will provide information and technical assistance for completion of the Notice of Intent (NOI) and Notice of Termination (NOT).

Review by agencies other than the City of Tucker and EPD is not included in this scope of services.

#### **Task 5 – Miscellaneous (as Authorized)**

Task 5 is a miscellaneous services task to cover any additional services or data collection efforts that the Client and Kimley-Horn may identify throughout the life of the project. Effort will not be expended on Task 5 without prior authorization from the City of Tucker.

### **Additional Services**

Any services not specifically provided for in the above scope will be billed as additional services and performed at our then current hourly rates. Additional services we can provide include, but are not limited to, the following:

- Additional traffic count data
- GDOT Intersection Control Evaluations
- Additional concepts or cost estimates
- Additional outreach meetings
- Graphic renderings
- Meetings beyond those described in the scope of services
- Environmental documentation
- Landscape design services
- Hydraulic/Hydrologic Studies and documentation, including any floodplain permitting
- Right-of-way cost estimation services
- Right-of-way acquisition services
- Non-standard wall, bridge, or other structural design services

- Subsurface Utility Engineering (SUE) Services
- Construction phase services and coordination with construction contractor
- Utility design services

### Schedule

We will provide our services as expeditiously as practicable on a mutually agreed to schedule.

### Information Provided by the Client

We shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives. The Client shall provide all information requested by Kimley-Horn during the project, including but not limited to the following:

- Previous plans/studies
- GIS data

### Terms of Compensation

Kimley-Horn will perform the above scope of services on a labor fee plus expense basis with the maximum labor fee shown below.

Task 1	Project Management and Meetings	\$13,580
Task 2	Public Involvement	\$5,820
Task 3	Survey Database and Acquisition Plats	\$30,000
Task 4	Construction Plans	\$134,215
Task 5	Miscellaneous	\$5,000
Maximum Labor Fee		\$188,615

Kimley-Horn will not exceed the total maximum fee shown without authorization from the Client. Individual task amounts are provided for budgeting purposes only. Kimley-Horn reserves the right to reallocate amounts among tasks as necessary.

## City of Tucker On-Call Services

Date: 10/2023

### Kimley-Horn and Associates, Inc.

Project: Idlewood @ Fellowship

GDOT PI No: N/A  
CC Project No: N/A

Phase: **Design**

Direct Labor Costs				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	12	\$220.00	\$2,640.00	
Project Manager	157	\$205.00	\$32,185.00	
Senior Roadway Engineer	255	\$200.00	\$51,000.00	
Roadway Engineer	10	\$165.00	\$1,650.00	
Associate Engineer/EIT	496	\$140.00	\$69,440.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	17	\$100.00	\$1,700.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	947			\$158,615.00
Total Direct Expenses (Survey)				\$30,000.00
Total Direct Labor Plus Direct Expenses				\$188,615.00
Maximum Amount of Contract Proposal				\$188,615.00

Direct Labor Costs - Task 1				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	1	\$220.00	\$220.00	
Project Manager	40	\$205.00	\$8,200.00	
Senior Roadway Engineer	17	\$200.00	\$3,400.00	
Roadway Engineer	0	\$165.00	\$0.00	
Associate Engineer/EIT	4	\$140.00	\$560.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	12	\$100.00	\$1,200.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	74			\$13,580.00

Direct Labor Costs - Task 2				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	0	\$220.00	\$0.00	
Project Manager	14	\$205.00	\$2,870.00	
Senior Roadway Engineer	0	\$200.00	\$0.00	
Roadway Engineer	6	\$165.00	\$990.00	
Associate Engineer/EIT	14	\$140.00	\$1,960.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	0	\$100.00	\$0.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	34			\$5,820.00

Direct Labor Costs - Task 4				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	6	\$220.00	\$1,320.00	
Project Manager	95	\$205.00	\$19,475.00	
Senior Roadway Engineer	236	\$200.00	\$47,200.00	
Roadway Engineer	0	\$165.00	\$0.00	
Associate Engineer/EIT	473	\$140.00	\$66,220.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	0	\$100.00	\$0.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	810			\$134,215.00

Direct Labor Costs - Task 5				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	5	\$220.00	\$1,100.00	
Project Manager	8	\$205.00	\$1,640.00	
Senior Roadway Engineer	2	\$200.00	\$400.00	
Roadway Engineer	4	\$165.00	\$660.00	
Associate Engineer/EIT	5	\$140.00	\$700.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	5	\$100.00	\$500.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	29			\$5,000.00





Mr. Wilton  
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## Project Understanding:

Pursuant to the information provided by the client, we understand that professional land surveying services have been requested in support of the aforementioned project. Our work will be completed at the intersection of Fellowship Road and Idlewood Road in the City of Tucker, DeKalb County, Georgia.

## Technical Specifications:

- Horizontal Datum – NAD 1983(2011)
- Vertical Datum – NAVD 1988
- Coordinate System – SPC GA West

## Scope of Services:

Topographic and Property Survey – T2ue will provide land surveying services within the project limits (shown below) in accordance with the current Standards of Practice for Surveying and Mapping in the State of Georgia. This will include the following items:

- Establish primary GPS control (NAD 1983(2011, NAVD 1988, SPCS GA West) using eGPS Solutions, Inc.
- Establish secondary project control
- Field location of property monuments/corners adjacent to or within the survey area. The property surveys will be sufficient to allow the preparation of easement and/or right-of-way acquisition plats
- Field location of terrain break-lines and random terrain points
- Field location of existing sidewalks, edge of pavements, back of curbs, and road centerlines
- Field location of buildings corners with finished floor elevations, if accessible.
- Field location of existing awnings, fences, driveway, etc. (typical topographic features)
- Field location of pavement striping including and type of any parking areas
- Field location of existing storm & sanitary sewer systems (sizes, types and inverts)
- Field location of next adjacent off-site storm & sanitary sewer manhole
- Field location of grease traps, if accessible
- Field location of above ground “visible” utilities such as poles, hydrant, meters, valves, existing utility one-call marks, etc.
  - Overhead connectivity will be shown between poles within the limits of survey
  - The direction of O/H utility lines will be shown entering or leaving the limits of survey
    - Field location of “One-Out” poles are not included nor anticipated
- Field location of trees greater than five inches (5") diameter measured at four foot (4') above grade
- Prepare Exhibits and Legal Descriptions for up to seven (7) parcels based upon the survey data collected by T2ue and acquisition needs of the client.

## Mapping and Deliverables:

Provide a GDOT compliant ORD survey database representing the field work.

## Basis and Assumptions:

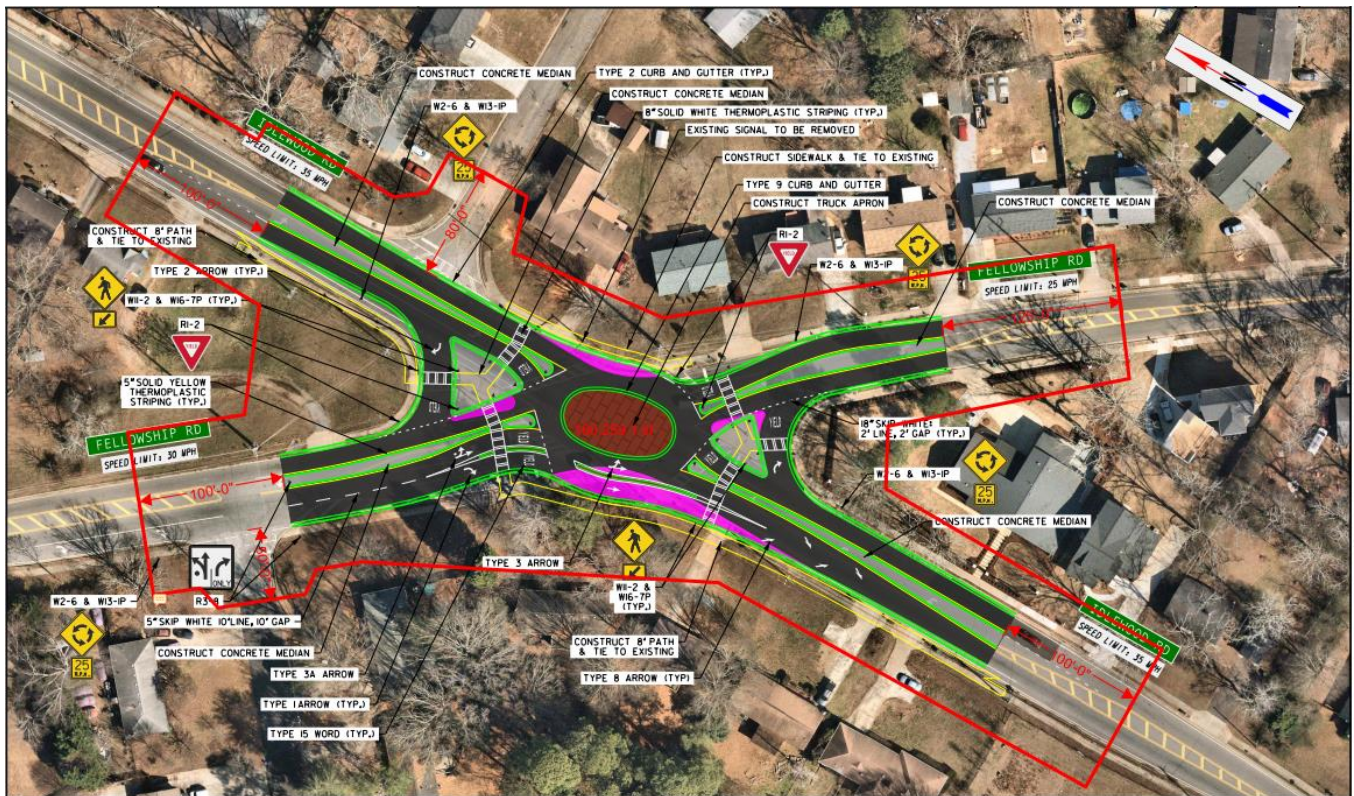
Unless specifically stated otherwise in the Scope of Services, this proposal is conditioned on the following. Differences may result in necessary changes to the proposed scope and fee.

- This survey will **not** be an ALTA/NSPS Land Title Survey. Should the client request an ALTA/NSPS Land Title Survey, a separate proposal will be created for that task.

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- This project will not have any involvement from nor be reviewed by GDOT
- Field location of wetland flagging is not anticipated nor included.
- Tagging of trees is not anticipated nor included.
- Buildings within the limits will be surveyed to the face of the building.
- No building internals will be surveyed.
- Location of basement limits is not anticipated nor included.
- Marking and surveying of subsurface utility lines is not anticipated nor included.
- Utility test holes are not anticipated nor included (Level "A").
- Areas under construction will be labelled as such, with survey extending to safety fence only.
- Heights above existing grade of Overhead Utilities or Pole Attachment are not anticipated or included.
- Need for city, county, municipality, railroad or other entity permits is not anticipated nor included.
- Parcel 18 185 01 021 in its entirety will not be included in the property database.
- Field work can be completed within normally accepted business hours.
  - The need for night or weekend work is not anticipated nor included in this scope.
- No traffic control will be required. If it is determined to be necessary T2ue staff will contact the Client to arrange for an add service to cover the additional costs.
- Proposal is valid for 60 days.

## Project Limits (Exhibit – Not to Scale)



### Client Responsibilities:

Prior to commencing our field tasks, client will:

- Allow T2ue employees unrestricted access to the Subject Parcels



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- Client to send property access notification letters, if needed.
- Client to coordinate that parked cars on subject parcel will not impede the field effort.

**Schedule:** All references are to regular business days. Barring any unforeseen conditions, T2ue is prepared to proceed with this task within 10 days of receiving Notice to Proceed. We anticipate providing our final deliverables within 1 week of our last day in the field.

**Fee:** T2ue proposes to provide the Scope of Services for a **Lump Sum of \$30,000.**

### **Additional Services**

This proposal excludes all services not specifically included herein. Additional services will be requested in writing and will be performed, upon acceptance, at our standard hourly rates in effect at the time of the request, unless negotiated in writing otherwise.

### **Conclusion**

Thank you for the opportunity to present this proposal. The fee quoted herein are valid for the next 45 days. If you have any questions or comments, please do not hesitate to call. We look forward to providing quality surveying services on this project. Your signature below will serve as acceptance of this proposal.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Tony DiMarino Jr.'.

Tony DiMarino Jr., PLS  
Regional Manager – Southeast

## City of Tucker On-Call Services

Date: 10/2023

### Kimley-Horn and Associates, Inc.

Project: Idlewood @ Fellowship

GDOT PI No: N/A

CC Project No: N/A

Phase: **Design**

Direct Labor Costs				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	12	\$220.00	\$2,640.00	
Project Manager	157	\$205.00	\$32,185.00	
Senior Roadway Engineer	255	\$200.00	\$51,000.00	
Roadway Engineer	10	\$165.00	\$1,650.00	
Associate Engineer/EIT	496	\$140.00	\$69,440.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	17	\$100.00	\$1,700.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	947			\$158,615.00
Total Direct Expenses (Survey)				\$30,000.00
Total Direct Labor Plus Direct Expenses				\$188,615.00
Maximum Amount of Contract Proposal				\$188,615.00

Direct Labor Costs - Task 1				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	1	\$220.00	\$220.00	
Project Manager	40	\$205.00	\$8,200.00	
Senior Roadway Engineer	17	\$200.00	\$3,400.00	
Roadway Engineer	0	\$165.00	\$0.00	
Associate Engineer/EIT	4	\$140.00	\$560.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	12	\$100.00	\$1,200.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	74			\$13,580.00

Direct Labor Costs - Task 2				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	0	\$220.00	\$0.00	
Project Manager	14	\$205.00	\$2,870.00	
Senior Roadway Engineer	0	\$200.00	\$0.00	
Roadway Engineer	6	\$165.00	\$990.00	
Associate Engineer/EIT	14	\$140.00	\$1,960.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	0	\$100.00	\$0.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	34			\$5,820.00



Direct Labor Costs - Task 4				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	6	\$220.00	\$1,320.00	
Project Manager	95	\$205.00	\$19,475.00	
Senior Roadway Engineer	236	\$200.00	\$47,200.00	
Roadway Engineer	0	\$165.00	\$0.00	
Associate Engineer/EIT	473	\$140.00	\$66,220.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	0	\$100.00	\$0.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	810			\$134,215.00

Direct Labor Costs - Task 5				
Personnel	Est Hours	Rate/Hr	Cost (\$)	Totals
Principal-In-Charge	5	\$220.00	\$1,100.00	
Project Manager	8	\$205.00	\$1,640.00	
Senior Roadway Engineer	2	\$200.00	\$400.00	
Roadway Engineer	4	\$165.00	\$660.00	
Associate Engineer/EIT	5	\$140.00	\$700.00	
Roadway Technician	0	\$120.00	\$0.00	
Senior Planner	0	\$205.00	\$0.00	
Senior Traffic Engineer	0	\$200.00	\$0.00	
Traffic Engineer	0	\$165.00	\$0.00	
Traffic Technician	0	\$120.00	\$0.00	
Clerical	5	\$100.00	\$500.00	
Landscape Architect	0	\$145.00	\$0.00	
Senior Landscape Architect	0	\$200.00	\$0.00	
Subtotal	29			\$5,000.00



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Tami Hanlin, City Manager  
**CC:** Ted Baggett, City Attorney  
**Date:** 11/7/2023  
**RE:** Memo for Proposed contract with DeKalb Community Service Board (CSB)

---

### **Description for on the Agenda:**

Presentation by the DeKalb Community Service Board

### **Issue:**

The city has seen a consistent issue with un-housed individuals who are in need of support beyond the scope the DeKalb Police Department is able to provide. The City is considering funding an additional resource to support the Police efforts.

### **Recommendation:**

The Mayor and Council approve a contract on 11/13/2023 with the CSB to provide a dedicated resource to the city in an effort to address the needs of unhoused individuals.

### **Background:**

Recently the DeKalb Community Service Board reached out to the Mayor and staff to explain their mission and explore partnership opportunities. They are a State funded agency (staff are State employees) that deliver local services. The goal of the organization is to provide; crisis services including assessment, support, intervention, and stabilization; temporary observation services, medically monitored substance withdrawal management, brief individual and group counseling and linkage to community-based services. They work with DeKalb Police and often are called by the Police to provide follow up services that the Police do not have available. They currently work with Doraville, Dunwoody, and Decatur. They are proposing that the City contract with the CSB for a dedicated Case Worker who would be focused on Tucker. The case worker would be charged with identifying community resources (NETworks, churches, etc.) and working directly with unhoused individuals and those in crisis. The Case Worker would have an office at City Hall and could be full or part time. I am recommending that we enter into a one-year contract for 20 hours per week, as it is difficult to determine the extent of the need without supporting data. The cost would be approximately \$32,000 for the first year. I have included the link to their website for review.

<https://dbhdd.georgia.gov/locations/dekalb-community-service-board>



## MEMORANDUM OF AGREEMENT

Between: \_\_\_\_\_ and the DeKalb Community Service Board (DeKalb CSB)

Date: \_\_\_\_\_

RE: Co-responder Program/ Community Mental Health Case Management

THIS AGREEMENT, made by and between the \_\_\_\_\_ and DeKalb Community Service Board (DeKalb CSB), a non-profit public agency established pursuant to O.C.G.A. § 37-2-6, organized and existing in DeKalb County, Georgia (hereinafter referred to as DeKalb CSB), shall constitute the terms and conditions under which the DeKalb CSB shall provide a 20hr part-community mental health case manager to support the City of Tucker.

WITNESSETH: That for and consideration of the mutual covenants and agreements herein set forth, the \_\_\_\_\_ and DeKalb CSB hereby agree as follows:

1. Term: The services to be performed under this Agreement shall be for one (1) year , beginning on \_\_\_\_\_, and ending on \_\_\_\_\_, and thereafter will automatically renew for consecutive one (1) year terms unless written notice of non-renewal is provided by either party to the other at least sixty (60) days prior to the expiration of the then-current term or, unless terminated earlier in accordance with the termination provision of this Agreement. In any event this Agreement shall terminate with no further renewals on \_\_\_\_\_

Either party may terminate this Agreement, effective at the end of the then-current term, on written notice to the other party given not later than sixty (60) days from the end of the then-current term of each year in which the Agreement is in force. If this Agreement is terminated pursuant to this paragraph, DeKalb CSB will be exclusively limited to receiving only the compensation for services satisfactorily received and performed up to and including the effective date of termination.

2. Payment: The \_\_\_\_\_ shall pay up to the following amount to the DeKalb CSB for services performed pursuant to Co-responder Services as identified in Attachment B, which is attached hereto and incorporated herein by reference. The DeKalb CSB will invoice the \_\_\_\_\_ monthly once costs have incurred.
3. Payment is to be made no later than thirty (30) days after submittal of undisputed invoice.

Invoices must be submitted as follows:

- A. Original invoice must be submitted to:

\_\_\_\_\_

In case of termination of this Agreement before completion of the work, DeKalb CSB will be paid only for work completed as of the date of termination.

4. Scope of Work: The DeKalb CSB agrees to provide the following services to the \_\_\_\_\_: Co-responder Program Services, as identified in Attachment A, which is attached hereto and incorporated by reference.
5. General Conditions.
  - A. Additional Work. If DeKalb CSB is asked by the \_\_\_\_\_ to perform work beyond the scope of this Agreement for which payment is desired, DeKalb CSB shall notify the \_\_\_\_\_ in writing, state that the work is considered outside the basic scope of this Agreement, give a proposed cost for the additional work, and obtain the approval in writing from the \_\_\_\_\_ prior to performing the additional work for which DeKalb CSB is to be paid. The \_\_\_\_\_ shall in no way be held liable for any work performed under this Article which was not first been approved in writing by the \_\_\_\_\_.



- B. Successors and Assigns. Neither DeKalb CSB nor the \_\_\_\_\_ is a partner, joint venture, agent, or servant of the other. In respect of all terms of this Agreement, DeKalb CSB, and the \_\_\_\_\_ each binds itself and its principals, agents, successors, and assigns. Except as expressly authorized herein, neither DeKalb CSB nor the \_\_\_\_\_ may assign, license, transfer, or otherwise convey its rights or obligations under this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officers or agents of either party, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the two parties to this Agreement. No third-party beneficiary is created or intended in respect of the Agreement.
- C. Notices. All notices required or authorized under this Agreement shall be in writing and sent by certified mail return receipt requested, nationally recognized overnight courier, personal delivery, or email (if confirmed by certified mail, overnight courier, or personal delivery) to the address indicated below, or such other address as either may indicate by at least ten (10) days prior written notice to the other party. Notice will be effective on the date received.

**Dekalb CSB**  
**ATTN: Fabio Van Der Merwe**  
**Chief Executive Officer**  
**445 Winn Way**  
**P.O. Box 1648**  
**Decatur, GA 30030**  
[fabio@dekcsb.org](mailto:fabio@dekcsb.org)

\_\_\_\_\_  
**ATTN:**  
**Title:**

**With a copy to:**  
\_\_\_\_\_

E. Modification. This Agreement may be modified or amended by the \_\_\_\_\_ to reduce the scope of work or project description on thirty (30) days written notice to the DeKalb CSB.

F. Termination of Agreement. The \_\_\_\_\_ unilaterally may terminate this Agreement, in whole or in part, for the \_\_\_\_\_'s convenience, or because of failure of the DeKalb CSB to fulfill the obligations of this Agreement or any of them. The \_\_\_\_\_ shall terminate by delivering written notice to DeKalb CSB at least sixty (60) days prior to the effective date of termination. If terminated by the \_\_\_\_\_, the written notice shall be sent to the address set forth in the foregoing Section 5.C.

Notices. If this Agreement is terminated pursuant to this paragraph, DeKalb CSB shall be paid for services rendered through the effective date of termination.

DeKalb CSB unilaterally may terminate this Agreement, in whole or in part, for DeKalb CSB's convenience, or because of failure of the \_\_\_\_\_ to fulfill the obligations of this Agreement or any of them. DeKalb CSB shall terminate by delivering to the \_\_\_\_\_ with at least sixty (60) days written notice a Notice of Termination specifying the effective date of termination.

G. Insurance. As a public agency and instrumentality of the State of Georgia, the DeKalb CSB is insured for liability by operation of law under the Georgia Tort Claims Fund, and is entitled to raise the defense of sovereign immunity to the extent authorized under Art. I, Sec. II, Para. IX of the Georgia Constitution and the Georgia Tort Claims Act (O.C.G.A. Title 50, Chapter 21, Article 2). See O.C.G.A. § 50-21-34(a); see also Youngblood v. Gwinnett Rockdale Newton Community Service Board, 273 GA 715, 545 S.E. 2d 875 (2001). DeKalb CSB is insured through the Georgia Department of Administrative Services for up to \$1,000,000 per person, \$3,000,000 per occurrence. The Department of Administrative Services will not name DeKalb CSB individually as an additional insured.



H. Georgia Law Governs. This Agreement shall be governed by, construed and enforced in accordance with the laws of the State of Georgia.

I. Venue. This Agreement shall be deemed to have been made and performed in DeKalb County, Georgia. For the purposes of venue, all actions arising under this Agreement shall be brought in the courts of DeKalb County, Georgia.

J. \_\_\_\_\_. The \_\_\_\_\_ may designate a representative through whom DeKalb CSB will contact the City. In the event of such designation, said representative shall be consulted and written recommendation obtained before any request for extra work is presented to the \_\_\_\_\_. Payments to DeKalb CSB shall be made only upon itemized bill submitted to and approved by said representative.

K. Georgia Open Records Act. Without regard to any designation made by the parties to this Agreement, all information submitted in respect of this Agreement may be deemed to be a public record subject to disclosure under Georgia Open Records Act (O.C.G.A. Title 50, Chapter 18, Article 4).

L. Sole Agreement. This Agreement constitutes the sole agreement between the parties regarding the subject matter herein: the Co-responder program/community mental health case management. No representations oral or written not incorporated herein shall be binding on the parties. No amendment or modifications to this Agreement shall be enforceable unless approved by action of the \_\_\_\_\_ and the DeKalb CSB and memorialized in a writing executed by both parties.

M. Funding Clause. DeKalb CSB has been informed and understands that funding for this Agreement is provided by the \_\_\_\_\_ and expressly agrees that performance of this Agreement in whole or in part, is contingent on and subject to the availability and continuation of such funding.

N. Indemnification. To the extent permitted by Georgia law, DeKalb CSB shall indemnify and hold harmless the City and its officers, employees, and agents, from any third party claims, damages, losses and expenses, including but not limited to attorneys' fees, arising out of or resulting from the negligent or intentional acts or omissions of DeKalb CSB and its officers, employees, agents, and contractors in the course of providing services under this Agreement.





IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in three (3) counterparts, each to be considered as an original, by their respective duly authorized representatives, this \_\_\_\_\_ day of \_\_\_\_\_, 20XX.

DEKALB CSB

\_\_\_\_\_  
Fabio Van Der Merwe, CHC  
Chief Executive Officer

\_\_\_\_\_

\_\_\_\_\_

## COMMUNITY MENTAL HEALTH CASE MANAGER – SCOPE OF SERVICES

Co-responder program provides crisis intervention response and follow-up for behavioral health calls as well as to provide outreach to members of community who are suspected of having mental health or substance use issues. The intent of the program is to provide a specialized response unit to respond to individuals experiencing a crisis and to engage individuals in ways that promote engagement in treatment and build partnerships between law enforcement and the community. The goals of the program are to provide crisis intervention services in the community to reduce hospitalizations, arrests, and incarceration. The City of Tucker currently utilizes the DeKalb County Police Department Co-responder program. The current agreement will add a community based mental health case manager who will be based in the City of Tucker offices.

### Responsibilities of the DeKalb CSB:

1. The DeKalb CSB, in collaboration and approval of the \_\_\_\_\_, will hire one (1) 20hr/Half-time staff person who is a paraprofessional case manager. The \_\_\_\_\_ may request a change in the case manager at any time and for any reason.
2. The paraprofessional case manager will be available during work hours that are mutually agreed upon by the DeKalb CSB and the \_\_\_\_\_.
3. Within 90 days, the DeKalb CSB will perform an initial comprehensive assessment, develop a service/response plan, and present its findings and recommendations to the \_\_\_\_\_ to further develop and enhance the program.
4. DeKalb CSB assigned staff will serve as a liaison to and collaborate with external organizations and agencies to further the efforts of the \_\_\_\_\_ community based mental health program.
5. Provides clinical and administrative supervision for the paraprofessional case manager. All paraprofessional case managers shall be employees or contractors of the DeKalb CSB and under no circumstances shall they be held out as or otherwise deemed to be employees of the \_\_\_\_\_.
6. Provide an Agency vehicle for transportation.
7. Provide laptop and mobile phone.
8. Provide after hour's telephone clinical consultation service.
9. Provides screening, clinical assessment, mental status evaluation therapeutic intervention, clinical education and disposition with individuals and their families in the community.
10. Evaluates individual's safety risk to self or others and initiates 1013 or 2013 as appropriate with the Co-responder team.
11. Provides therapeutic de-escalation as needed.
12. Assists in coordination with a receiving facility when it is determined that the individual needs crisis stabilization.
13. Conducts follow-ups on prior crisis response calls.
14. Intakes for the \_\_\_\_\_ staff referrals and conducts follow-ups/outreach.
15. Conducts outreach with unhoused individuals and members of the community suspected of having mental health and/or substance use issues.
16. Completes timely electronic documentation for each call and follow-up visit.
17. Completes data collection, monitoring and evaluation/reporting.
18. Conducts in-service training for additional City staff.
19. Conducts community training/information sessions.
20. Attends community outreach events.
21. Will provide a monthly report with the following data points:
  - a. Individuals Served: Number, basic demographics, location.
  - b. Referral Source
  - c. Outcome of calls
  - d. % of Individuals who are Active DeKalb CSB clients
22. DeKalb CSB is responsible for all salaries and benefits associated with its employees.
23. DeKalb CSB will abide by all applicable \_\_\_\_\_ policies and procedures, as well as those of the \_\_\_\_\_.



24. DeKalb CSB employees shall be required to undergo a full background check, including submission to a criminal history background check.
25. DeKalb CSB employees shall be required to undergo any designated training and certification to access restricted criminal history information, as applicable.
26. DeKalb CSB will provide all necessary personal protective equipment (e.g.; masks, face shields, gloves, etc.) as needed by its clinicians to safely interact with in-crisis individuals or to conduct therapy sessions.
27. DeKalb CSB will not discriminate against any employee or applicant for employment regardless of actual or perceived race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity, age, disability, marital status, familial status, or veteran/military status. DeKalb CSB will take affirmative action to ensure that applicants are employed, and that employees are treated during employment regardless of actual or perceived race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity, age, disability, marital status, familial status, or veteran/military status. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship; and, participation in recreational and educational activities.

Responsibilities of the \_\_\_\_\_:

1. The \_\_\_\_\_ liaison/representative will be \_\_\_\_\_.
2. The \_\_\_\_\_ will identify individuals who might benefit from behavioral health services and support.
3. The \_\_\_\_\_ will identify “high utilizers” and/or “complex care clients” for the assignment for DeKalb CSB services.
4. The \_\_\_\_\_ will make referrals to DeKalb CSB for it to provide clinical services.
5. The \_\_\_\_\_ will provide office space for the DeKalb CSB behavioral health staff and designate a space for mental health case manager to meet with individuals when needed.
6. The \_\_\_\_\_ will maintain no therapeutic records of individuals enrolled in DeKalb CSB services, nor will any member of the \_\_\_\_\_ access medical records not consistent with public safety objectives pursuant to federal or state laws.
7. The \_\_\_\_\_ will provide training on departmental protocols.

If the \_\_\_\_\_ determines that a mental health case manager is not following policies and procedures or is not fit to provide appropriate and adequate behavior health services as part of this Agreement, the representative will inform DeKalb CSB immediately and the DeKalb CSB mental health case manager will no longer provide program services.

DeKalb CSB and the \_\_\_\_\_ agree that their designated representatives will meet monthly to evaluate the program’s progress. Issues that hinder progress will be addressed in a timely and collaborative manner. A monthly report will be provided by DeKalb CSB on activity.



## ATTACHMENT B – BUDGET – DEKALB COMMUNITY SERVICE BOARD

### Budget Justification

**Project/Department Name :**

Co-responder Program

				Year 1	Year 2
Personnel					
Position	FTE	Annual Salary+Fringe/Benefits	Level of Effort	Grant Request Year 1	Grant Request Year 2
Community Mental Health Case Manager	0.5	47,360	50%	23,680	24,154
<b>Total:</b>				<b>\$ 23,680.00</b>	<b>\$ 24,153.60</b>
Transportation - Specific to costs incurred by CSB					
Item	Quantity	Cost		Year 1	Year 2
Vehicle	annual	1		\$ 8,400.00	\$ 8,400.00
<b>Total:</b>				<b>\$ 8,400.00</b>	<b>\$ 8,400.00</b>
Technology					
Item	Quantity	Cost		Year 1	Year 2
Tablets/Laptops	annual	1		\$1,500.00	
Cell Phone Package	annual	1	264	\$264.00	\$264.00
<b>Total:</b>				<b>\$1,764.00</b>	<b>\$264.00</b>
<b>Total Direct Costs:</b>				<b>\$ 33,844.00</b>	<b>\$ 32,817.60</b>
Administrative					
Name	Percent			Year 1	Year 2
Administrative	8%			\$ 2,707.52	\$ 2,625.41
				<b>Total</b>	<b>Total</b>
<b>Grant Request:</b>				<b>\$ 36,551.52</b>	<b>\$ 35,443.01</b>
Funding Needed				Total	Total
DeKalb CSB Reserve Funding				\$ 7,500.00	\$ 5,000.00
City of Tucker				\$ 29,051.52	\$ 30,443.01



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ishri Sankar, Public Works Director  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for TO#5 – Video Inspection and Cleaning of Conduits at 10 Locations

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### **Description for on the Agenda:**

Approval of Task Order #5 of FY 2024 Stormwater Repair Projects per the City's Procurement Policy

### **Issue:**

Further investigation on heavily silted or inaccessible pipes with known drainage issues need further inv to assess the cause of failure.

### **Recommendation:**

Approval for Staff to Authorize Task Order #5

### **Background:**

In response to service requests and initial findings from the Atlas Inventory and Assessment Project, additional conduits and structures have been identified for additional research/investigation. This task will provide video information on the conditions of these conduits and structures, and the necessary preliminary cleaning to assess the condition. A unit price with a not to exceed cost proposal was solicited, and a task order is prepared in the amount of \$94,228.13, which includes a 15% contingency. Staff recommends award to Materials & Metals Engineers, LLC.

### **Financial Impact:**

Budget not to exceed \$94,228.13.





**STORMWATER MAINTENANCE AND REPAIR  
CONTRACT AGREEMENT (RFP 2023-016)  
TASK ORDER #5**

**Video Inspection and Cleaning of Conduits at 10 Locations**

This TASK ORDER between the parties is entered pursuant to the CONTRACT AGREEMENT (RFP #2023-016) and shall serve as authorization by the City of Tucker to MATERIALS AND METALS ENGINEERS, LLC (“CONTRACTOR”) to perform the services described herein pursuant to the terms and conditions, mutual covenants and promises provided herein and in the CONTRACT AGREEMENT (RFP #2023-016). Now therefore, the parties agree as follows:

**Location of Project:**

Camera (and associated cleaning as may be necessary) of stormwater pipes at 10 locations throughout the city AS NOTED BELOW:

1. 2975 Pine Orchard Drive
2. 2452 Spencers Way
3. 4918 Forestglade Circle
4. 3928 Northlake Creek Drive
5. 1940 Woburn Drive
6. 1703 Samaria Trail
7. 1612 Mountain Shadow Trail
8. 2804 Rotherwood Drive
9. 2569 Arldowne Drive
10. 6098 Kings Mountain Way

**Description of Services:** The services to be performed by the CONTRACTOR pursuant to this TASK ORDER (the “WORK”), include, but are not limited to, the following:

See detailed instructions in SCOPE OF WORK for each locations under “NOTES”.

**Information to be provided by the CITY:**

- Scope of work

**CONTRACTOR Deliverables to CITY:**

- Completed work per Exhibit A – SCOPE OF WORK

**Design Specifications and Guidelines:**

**Total Not to Exceed Fee                      \$ 94,228.13**

This TASK ORDER is subject to the terms and conditions of the original CONTRACT AGREEMENT (RFP #2023-016) as well as the mutual covenants contained herein.

**General Scope of Service:** The WORK under this TASK ORDER is to be commenced upon receipt of “Notice to Proceed” (NTP). The WORK will be completed within 60 calendar days after Notice to Proceed.

The CONTRACTOR shall prepare a schedule showing milestone completion dates based on completing the WORK within 60 calendar days (hereinafter referred to as the “Schedule for Completion”), excluding City review time. The Schedule for Completion will be revised to reflect the actual NTP date and will be updated as required throughout the project duration.

Every 30 days commencing with the execution of the TASK ORDER, the CONTRACTOR shall submit a report which shall include, but not be limited to, a narrative describing actual work accomplished during the reporting period, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, and any newly planned activities or changes in sequence (hereinafter referred to as “Narrative Report”). Such report shall also include an indication of the number of hours of work completed by CONTRACTOR in each of the job rate categories included in the CONTRACT AGREEMENT (RFP #2023-016). No invoice for payment shall be submitted and no payment whatsoever will be made to the CONTRACTOR until the Schedule for Completion, and the completion of Narrative Reports are updated and submitted to the City. In no event shall payment be made more often than once every 30 days.

The CONTRACTOR shall coordinate and attend periodic meetings with the CITY regarding the status of the TASK ORDER. The CONTRACTOR shall submit transmittals of all correspondence, telephone conversations, and minutes of project meetings.

The CONTRACTOR shall be responsible for the professional quality, technical accuracy, and the coordination of interpreting all designs, drawings, specifications, and other services furnished by or on behalf of the City pursuant to this TASK ORDER. The CONTRACTOR shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this TASK ORDER. All revisions shall be coordinated with the CITY prior to issuance. The CONTRACTOR shall also be responsible for any claim, damage, loss or expense from the incorrect interpretation of provided designs, drawings, and specifications pursuant to this TASK ORDER.

CONTRACTOR agrees that fees are earned pursuant to the WORK performed, which in no event shall exceed the amount set forth in the attached Fee Schedule and which hourly rate shall in no event exceed that provided in the Contract Agreement. Accordingly, invoices shall be submitted pursuant to completion of the Work performed based upon percentage completion.

If the City in good faith determines that the CONTRACTOR has failed to perform or deliver any service or product as required, the CONTRACTOR shall not be entitled to any compensation under the Contract until such service or product is performed or delivered. In this event, the City may withhold that portion of the CONTRACTOR'S compensation which represents payment for services or products that were not performed or delivered. To the extent that the CONTRACTOR'S failure to perform or deliver in a timely manner causes the City to incur costs, the City may deduct the amount of such incurred costs from any amounts payable to CONTRACTOR. The City's authority to deduct such incurred costs shall not in any way affect the City's authority to terminate the Contract. In the event that the CONTRACTOR owes the City any sum under the terms of the Contract, pursuant to any judgment, or pursuant to any law, the City may set off the sum owed to the City against any sum owed by the City to the CONTRACTOR in the City's sole discretion.

**Attachments:**

- EXHIBIT A – SCOPE OF WORK
- EXHIBIT B – COST PROPOSAL (in accordance with rates established in RFP 2023-016)

CITY OF TUCKER:

CONTRACTOR: METALS AND MATERIALS ENGINEERS, LLC

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Bonnie Warne, City Clerk

(Seal)

Approved as to form:

\_\_\_\_\_

Ted Baggett, City Attorney



# City of Tucker

## DEPARTMENT OF PUBLIC WORKS

10-17-23

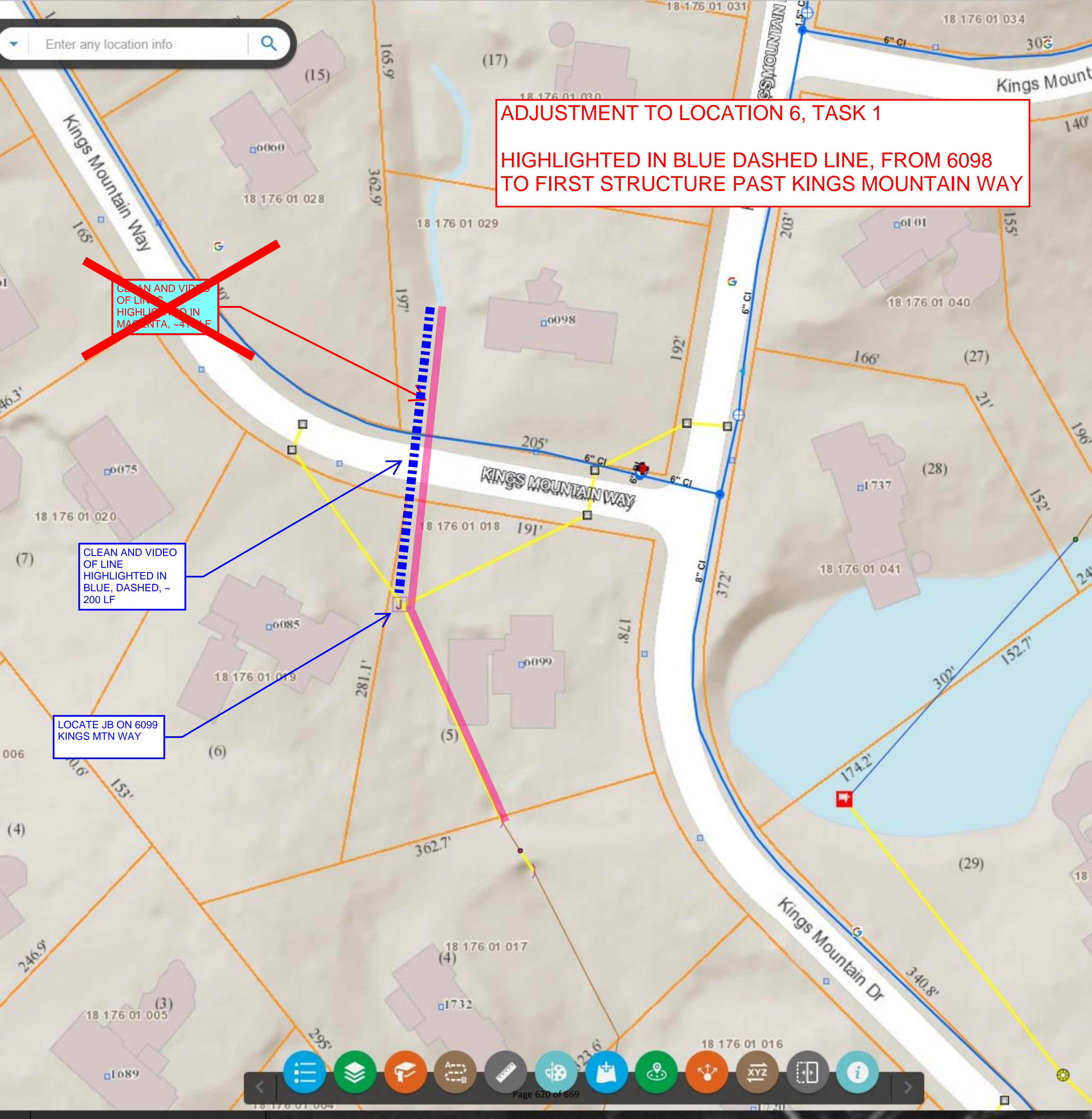
### 2023 Stormwater System Repair Projects ~ Task 5

The city has a project that involves camera (and associated cleaning as may be necessary) of stormwater pipes at 10 locations (6, 11 thru 19) throughout the city.

FY 2023 Video Capture of Existing Pipe Conditions								
	Location	# Structures	Length of Pipe	Size of Pipe	No of Barrels	Pipe Material	Live Stream	Notes
		EA	LF	IN	EA		Y/N	
11	2975 PINE ORCHARD DRIVE	3	200	24	1	CMP	N	ENTIRE SYSTEM, BEYOND EOS IN NEED OF REPLACEMENT/LINING
12	2452 SPENCERS WAY	3	200	18	1	CMP	N	SERIES OF SINKHOLES ALONG PIPE DRAINING FROM CUL DE SAC
13	4918 FORESTGLADE CIRCLE	3	160	30	1	CMP	N	SINKHOLES CONFIRMED DOWNSTREAM OF STRUCTURE, GROUT ON DOWNSTREAM PIPE IN CB SEEMS TO HAVE GAPS
		4	570	18	1	CMP	N	CCTV ENTIRE SYSTEM
14	3928 NORTHLAKE CREEK DRIVE	3	225	18	1	CMP	N	SINKHOLE FORMING ABOVE STORM PIPE DIRECTING RUNOFF FROM THE ROW.
15	1940 WOBURN DRIVE	2	130	18	1	CMP	N	ATLAS BASIN 001 INVENTORY
16	1703 SAMARIA TRAIL	2	120	18	1	CMP	N	ATLAS BASIN 001 INVENTORY
17	1612 MOUNTAIN SHADOW TRAIL	3	70 / 200	18 / 36	1	CMP	Y	CHECK PIPE FOR CONDITION
18	2804 ROTHERWOOD DRIVE	2	180	42	1	CMP	Y	CMP PIPE IN NEED OF LINING COST EST >100K\$
19	2569 ARLDOWNE DRIVE	4	350	30	1	CMP	N	CMP PIPE IN NEED OF LINING AND SIGNS OF SINKHOLES ALONG LENGTH
6	6098 KINGS MOUNTAIN WAY	2	200	18	1	CMP	Y	PIPE REPLACEMENT -METAL PIPE INVERT ERODED OUT-NEED CCTV

The city would like to solicit a price for this task using quantity categories and unit prices from the contract associated with 2023-016 RFP.





ADJUSTMENT TO LOCATION 6, TASK 1

HIGHLIGHTED IN BLUE DASHED LINE, FROM 6098 TO FIRST STRUCTURE PAST KINGS MOUNTAIN WAY

CLEAN AND VIDEO  
OF LINE  
HIGHLIGHTED IN  
MAGENTA, ~41 LF

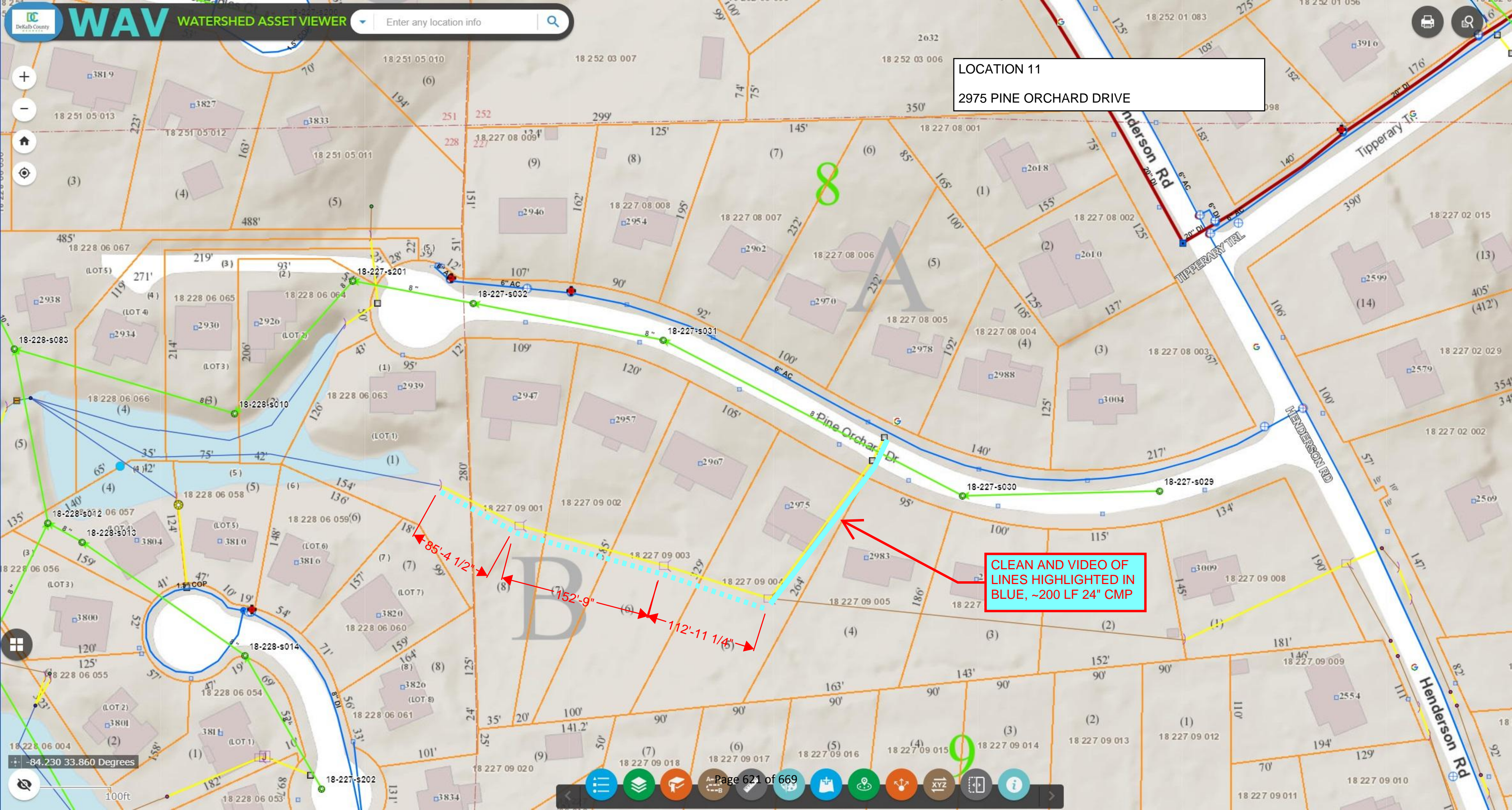
CLEAN AND VIDEO  
OF LINE  
HIGHLIGHTED IN  
BLUE, DASHED, ~  
200 LF

LOCATE JB ON 6099  
KINGS MTN WAY

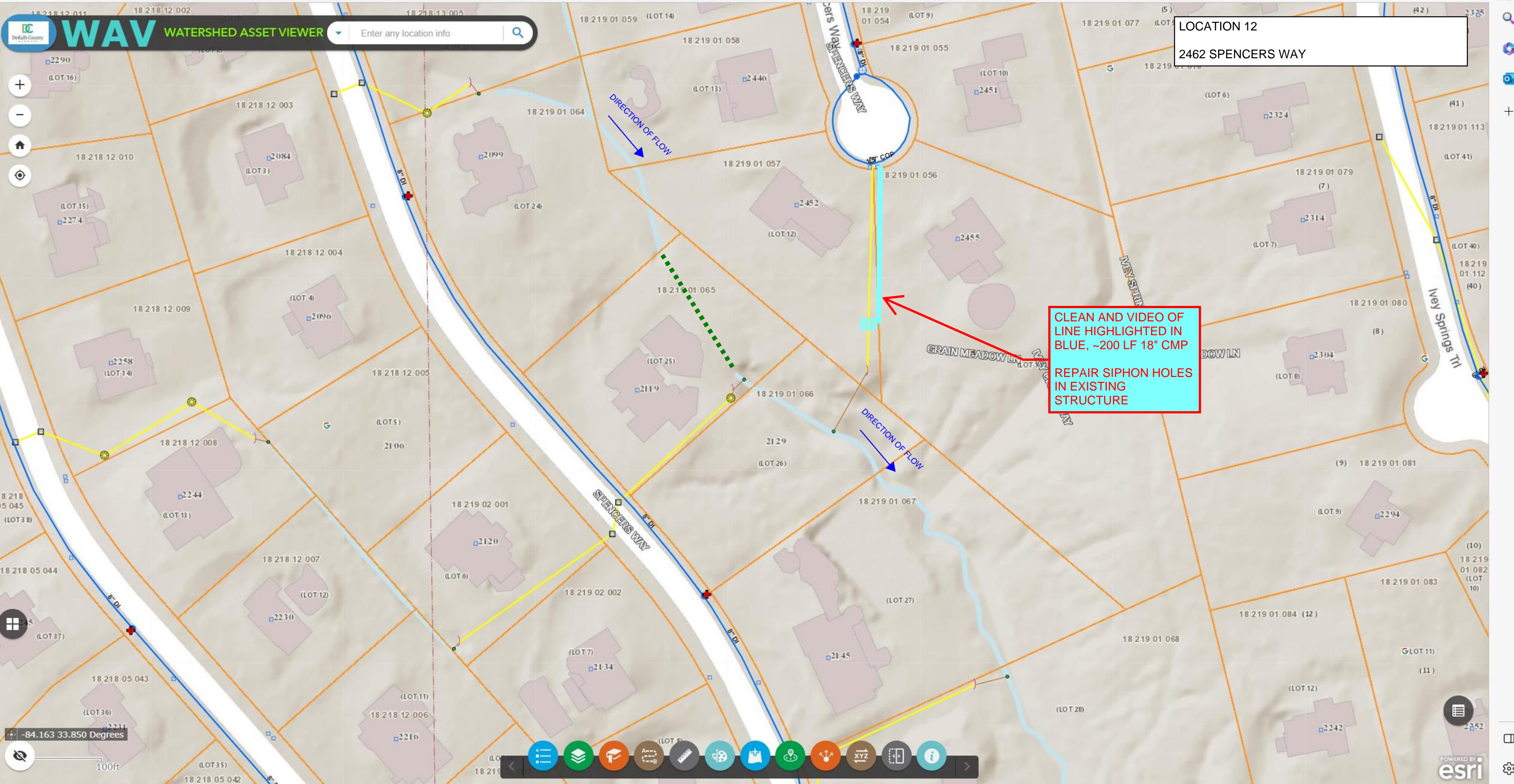


LOCATION 11  
2975 PINE ORCHARD DRIVE

CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~200 LF 24" CMP







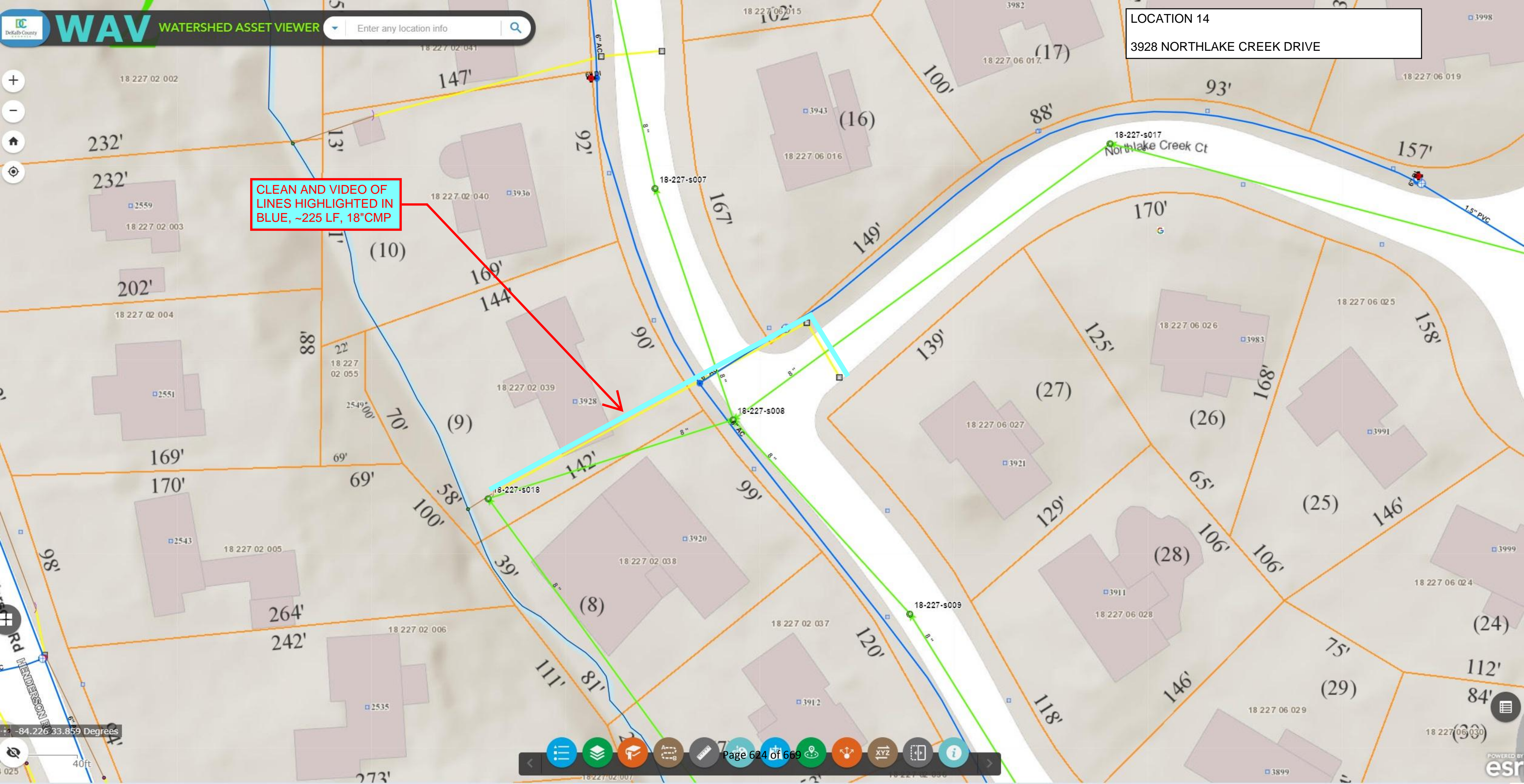


LOCATION 13  
4918 FORESTGLADE CIRCLE

CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~160 LF 30" CMP  
570 LF 18" CMP

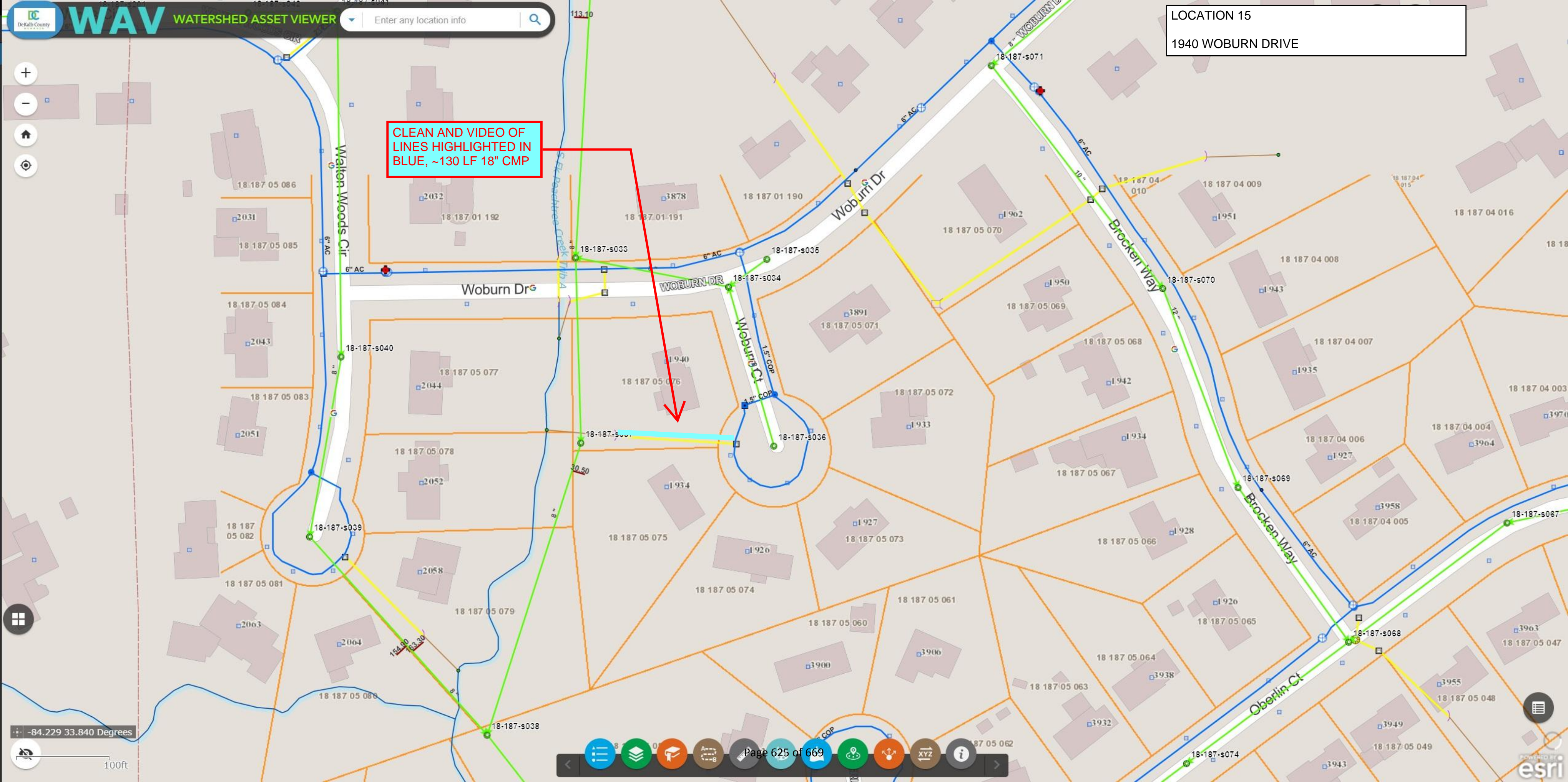


CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~225 LF, 18" CMP



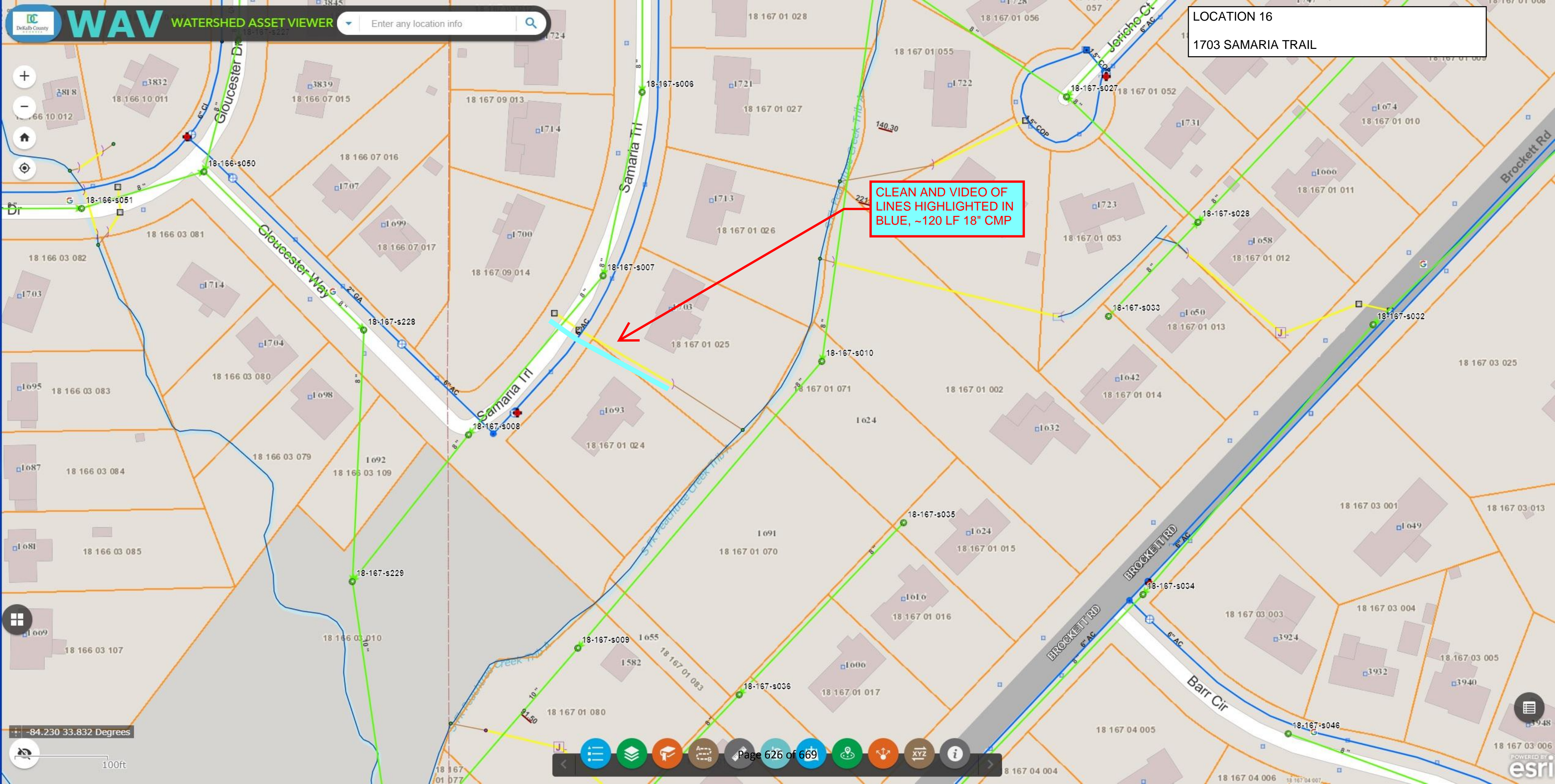


CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~130 LF 18" CMP





CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~120 LF 18" CMP





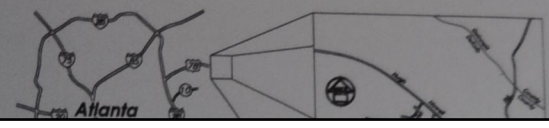
CURVE	ARC LENGTH	RADIUS	CHORD	CHORD BEARING	TANGENT
1	83.59'	170.55'	82.42'	S 44°37'18" W	48.01'
2	358.54'	291.80'	336.41'	S 06°17'39" E	205.84'
3	268.80'	394.72'	262.75'	S 62°38'45" E	140.83'
4	74.12'	1,248.84'	74.11'	S 85°32'29" E	37.07'
5	87.03'	407.34'	86.96'	S 82°38'49" E	33.59'
6	471.86'	87.00'	72.50'	S 12°47'12" W	39.87'
7	128.54'	319.30'	127.67'	N 16°31'59" W	65.15'
8	72.77'	319.30'	72.61'	N 34°34'48" W	36.54'
9	59.30'	392.13'	59.24'	N 45°30'26" W	29.70'
10	133.94'	392.13'	132.80'	N 59°35'43" W	67.42'
11	97.45'	392.13'	97.20'	N 76°28'15" W	48.98'
12	56.78'	1,281.04'	56.77'	N 85°04'22" W	28.39'
13	20.95'	1,281.04'	20.95'	N 86°48'40" W	10.48'
14	10.23'	380.77'	10.23'	N 86°41'56" W	5.12'
15	52.28'	380.77'	52.24'	N 81°59'45" W	26.18'
16	17.12'	15.00'	16.20'	N 45°04'31" W	8.63'
17	49.01'	87.00'	48.36'	N 28°31'33" W	25.17'
18	160.43'	87.00'	138.65'	S 82°30'29" W	114.73'
19	56.13'				
20	197.89'				
21	8.40'				
22	17.12'				
23	38.69'				
24	70.51'				
25	121.53'				
26	63.72'				
27	168.97'				
28	8.50'				
29	23.36'				

LINE	BEARING	DISTANCE
1	S 87°11'39" E	1.36.80'
2	S 77°45'50" E	85.58'
3	S 21°14'59" E	14.45'
4	N 83°17'49" W	3.78'
5	N 77°45'48" W	83.65'
6	N 87°11'39" W	119.53'
7	N 87°11'39" W	23.32'

Dekalb County Resolution No. 17605  
This is to certify that this resolution was made by and with the knowledge of the undersigned mayor and is in compliance with the applicable laws of the State of Georgia.  
*James H. Rutledge*  
Mayor - Dekalb County, Georgia

CERTIFICATION OF APPROVAL OF REVISED SUBDIVISION PLAT  
This is certified as being in order for approval of the plat revision officer of Dekalb County, Georgia. Said certification being subject to provisions and qualifications shown herein.  
This \_\_\_\_\_ Day of \_\_\_\_\_, 2004

Director of Public Works  
Revision #1, Revised August 19, 2004  
This plat supersedes a portion of the Plat Book 138, PG 11  
The purpose of this revision is to:  
1) Add lot 4, 5 & 10  
2) Revised the lot widths, lots 5 & 8  
This revised plat has been submitted to and considered by the plat revision officer of Dekalb County, Georgia and is subject to any protective easements herein.  
Dated this \_\_\_\_\_ Day of \_\_\_\_\_, 2004  
*B. Patterson*  
Plat Revision Officer  
Dekalb County, Georgia



LOCATION 17  
1612 MOUNTAIN SHADOW TRAIL

CLEAN AND VIDEO OF  
LINES HIGHLIGHTED IN  
BLUE, ~70 LF 18" CMP

RISER - SEE PHOTO - NOT  
PICKED UP ON COUNTY GIS

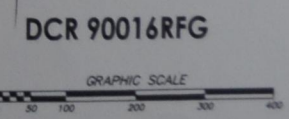
OUTLET PIPE FROM RISER OF  
UNDETERMINED DIAMETER -  
NOT PICKED UP ON COUNTY GIS  
APPROXIMATE 36" DIA CMP, 200 LF.  
CLEAN AND VIDEO LINE

NOTE: OVERALL BOUNDARY INFORMATION TAKEN FROM THE FINAL PLAT OF MOUNTAIN SHADOW SUBDIVISION, UNIT THREE, BY PATTERSON & SMITH, INC., DATED NOVEMBER 15, 1994.

CHORD	ARC	RADIUS	TANGENT	DELTA	DEGREE OF CURVE
C1	82.42'	83.59'	170.55'	48.01'	31° 26' 28"
C2	336.41'	358.54'	291.80'	205.84'	35° 35' 41"
C3	262.75'	268.80'	394.72'	141.43'	19° 36' 07"
C4	72.10'	72.10'	1,248.84'	36.06'	15° 42' 34"
C5	86.96'	87.04'	407.23'	33.59'	4° 35' 08"

UTILITY NOTE:  
APPROXIMATE LOCATIONS OF UNDERGROUND UTILITIES, AS SHOWN BY THIS SURVEY, ARE BASED UPON THE BEST AVAILABLE INFORMATION FURNISHED BY EACH UTILITY. PATTERSON ENGINEERING COMPANY IS UNABLE TO CERTIFY TO THE ACCURACY OR COMPLETENESS OF THIS INFORMATION. ALL UNDERGROUND UTILITY LOCATIONS MUST BE FIELD VERIFIED PRIOR TO ANY CONSTRUCTION BY THE UTILITY PROTECTION CENTER AT 404-623-4344 OR 1-800-282-7411.  
UNDERGROUND UTILITIES BEYOND OR CROSSING THE PREMISES MAY EXIST THAT ARE NOT SHOWN. PATTERSON & SMITH, INC. MAY NOT HAVE FULL KNOWLEDGE OF ALL UNDERGROUND UTILITIES.  
ABOVE GROUND UTILITY LOCATIONS WERE OBTAINED FROM FIELD OBSERVATIONS.

- LEGEND
- LAND LOT LINE
  - FENCE
  - TELEPHONE LINE
  - GAS LINE
  - WATER LINE
  - SANITARY SEWER LINE
  - POWER LINE
  - CATCH BASIN
  - JUNCTION BOX
  - DRAIN INLET
  - YARD INLET
  - WELLS
  - MANHOLE
  - CLEANOUT
  - IRON PIN FOUND
  - IRON PIN SET
  - CONCRETE MARKER FOUND
  - RIGHT OF WAY
  - CENTER LINE
  - PROPERTY LINE
  - LAND LOT
  - BENCH MARK
  - HATCH ELEVATION
  - MARK HOLE
  - PROPERTY CORNER
  - POLE
  - FIRE HYDRANT



Plat Book 149 Pg 45  
Linda Carter  
Clerk of Superior Court  
DeKalb County, Georgia

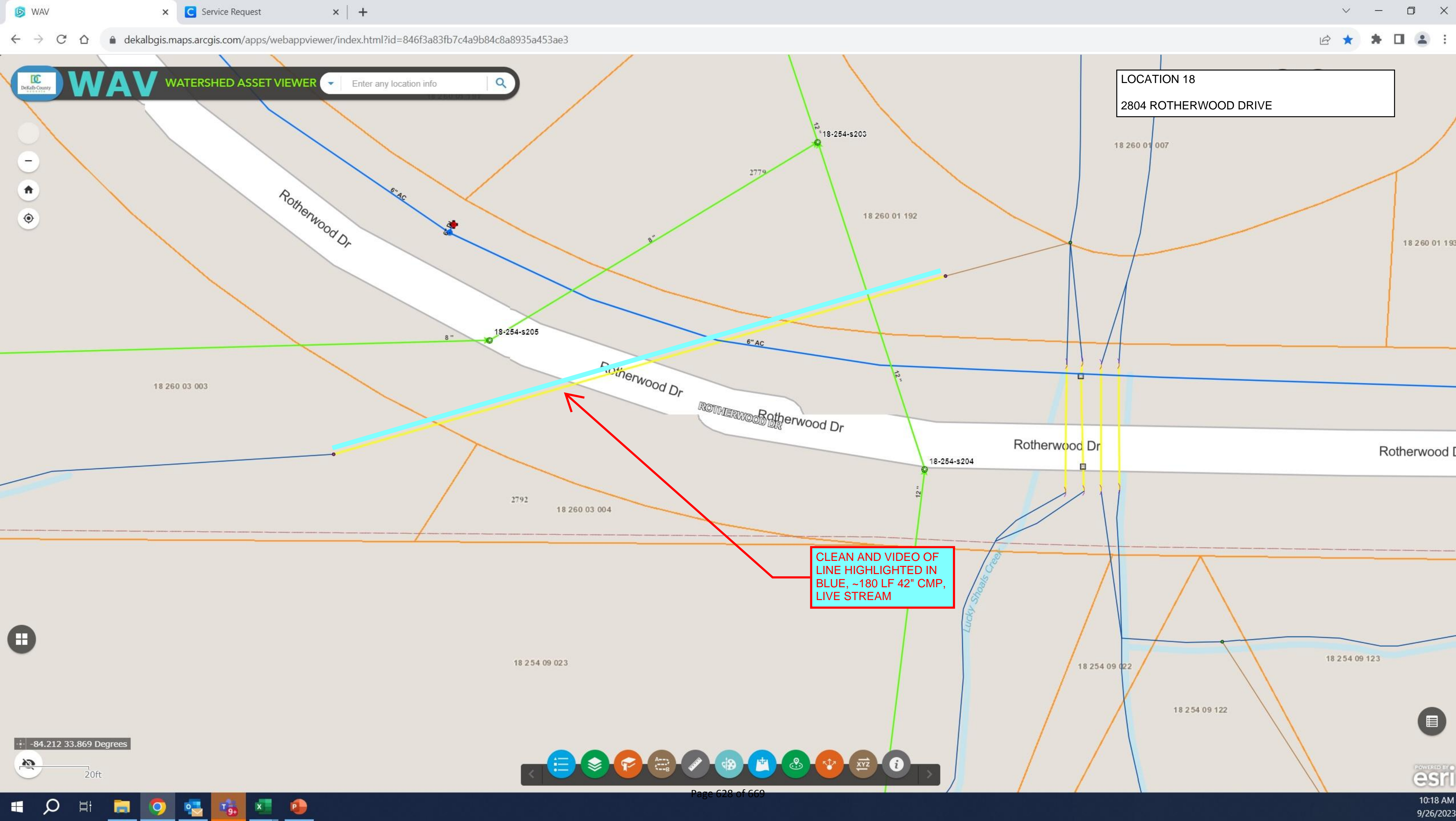
**Patterson Engineering Company**  
3300 NORTHEAST EXPRESSWAY  
ATLANTA, GEORGIA 30341  
(770) 451-7878

Project No. 04PATL001  
Design By: [Signature]  
Drawn By: [Signature]  
Checked By: [Signature]  
Date: 05/29/04  
Scale: 1" = 100'

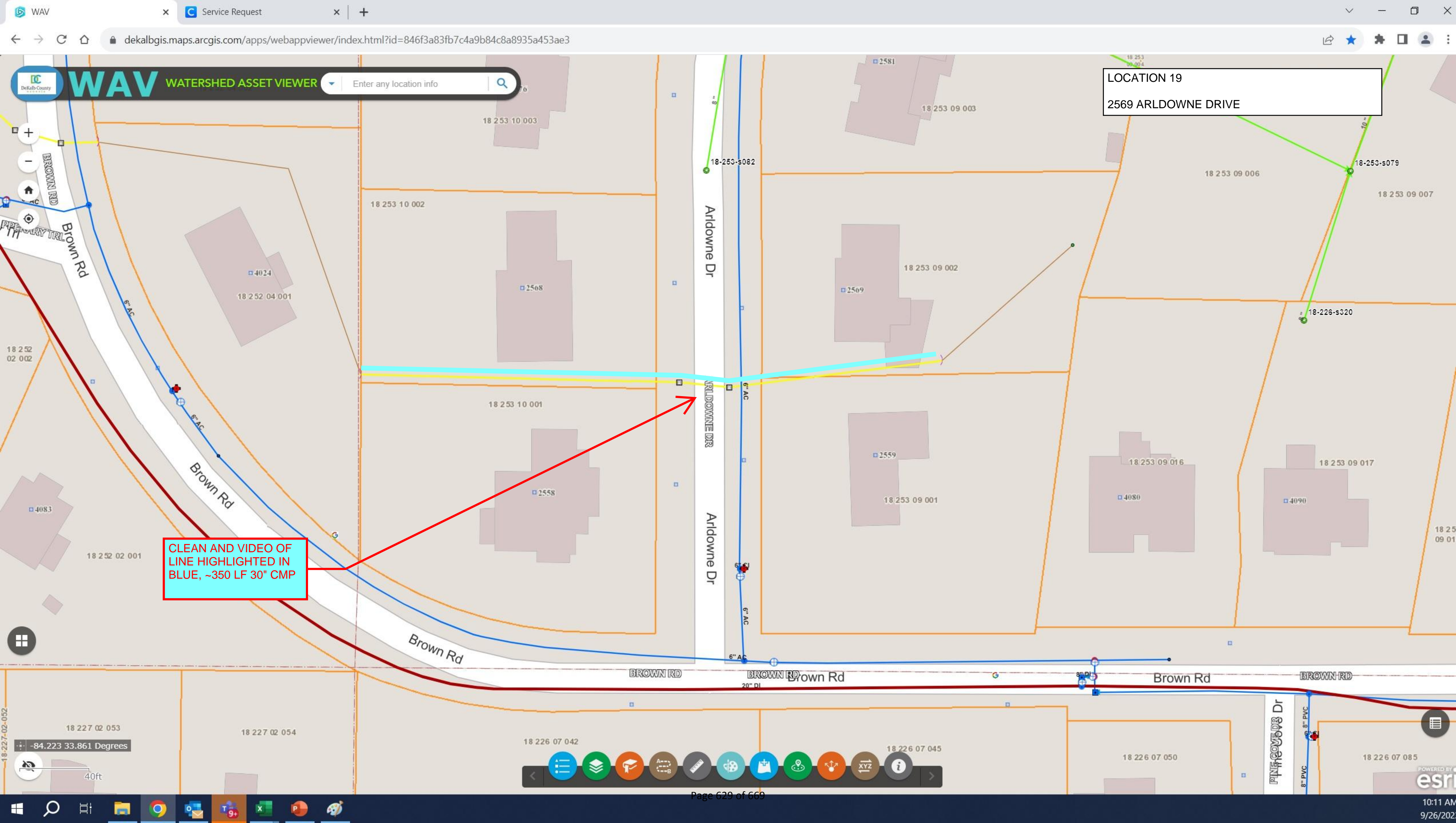
**FINAL PLAT**  
For  
**MOUNTAIN SHADOW SUBDIVISION**  
UNIT III, PHASE I  
LAND LOTS 136-137, 172 - 18th DISTRICT  
DEKALB COUNTY, GEORGIA

Drawing No.  
**FP-2**  
SHEET 2 OF 2









CLEAN AND VIDEO OF  
LINE HIGHLIGHTED IN  
BLUE, ~350 LF 30" CMP

LOCATION 19  
2569 ARLDOWNE DRIVE

# EXHIBIT B



## 2023 Stormwater System Repair Projects ~ Task 5

Proj. No.	Address	Description	Quantity	Unit	Unit Price	Extended Price
		Mobilization	1	Per Day	\$ 6,500.00	\$ 6,500.00
6	6098 Kings Mountain Way	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning 25% Full or Greater	200	LF	\$ 15.25	\$ 3,050.00
		TV Storm Lines (Include DVD & Report)	200	LF	\$ 4.25	\$ 850.00
		Uncover Buried Junction Box (4'-7.9')	1	EA	\$ 1,200.00	\$ 1,200.00
		Haul-Off Soil Material	3	CY	\$ 125.00	\$ 375.00
		Adjust manhole Cover in Soil (complete, includes re	1	EA	\$ 910.00	\$ 910.00
		Sodding, Complete-Fescue	2	SY	\$25.00	\$ 50.00
		<b>SUBTOTAL</b>				<b>\$ 7,885.00</b>
11	2975 Pine Orchard Drive	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		24" PIPE - Cleaning less than 25% Full	200	LF	\$ 18.25	\$ 3,650.00
		TV Storm Lines (Include DVD & Report)	200	LF	\$ 4.25	\$ 850.00
		<b>SUBTOTAL</b>				<b>\$ 5,950.00</b>
12	2452 Spencers Way	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	200	LF	\$ 15.25	\$ 3,050.00
		TV Storm Lines (Include DVD & Report)	200	LF	\$ 4.25	\$ 850.00
		Repair Siphon Holes in Existing Structure,Debris	2	per load	\$ 350.00	\$ 700.00
		<b>SUBTOTAL</b>				<b>\$ 6,050.00</b>
13	4918 Forestglade	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	570	LF	\$ 15.25	\$ 8,692.50
		TV Storm Lines (Include DVD & Report)	570	LF	\$ 4.25	\$ 2,422.50
		30" PIPE - Cleaning less than 25% Full	160	LF	\$ 18.25	\$ 2,920.00
		TV Storm Lines (Include DVD & Report)	160	LF	\$ 4.25	\$ 680.00
		<b>SUBTOTAL</b>				<b>\$ 16,165.00</b>
14	3928 Northlake Creek Ave	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	225	LF	\$ 15.25	\$ 3,431.25
		TV Storm Lines (Include DVD & Report)	225	LF	\$ 4.25	\$ 956.25
		<b>SUBTOTAL</b>				<b>\$ 5,837.50</b>
15	1940 Woburn Drive	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	130	LF	\$ 15.25	\$ 1,982.50
		TV Storm Lines (Include DVD & Report)	130	LF	\$ 4.25	\$ 552.50
		<b>SUBTOTAL</b>				<b>\$ 3,985.00</b>
16	1703 Samaria Trail	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	120	LF	\$ 15.25	\$ 1,830.00
		TV Storm Lines (Include DVD & Report)	120	LF	\$ 4.25	\$ 510.00
		<b>SUBTOTAL</b>				<b>\$ 3,790.00</b>
17	1612 MTN Shadow Trl	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		18" PIPE - Cleaning less than 25% Full	70	LF	\$ 15.25	\$ 1,067.50
		TV Storm Lines (Include DVD & Report)	70	LF	\$ 4.25	\$ 297.50
		36" PIPE - Cleaning less than 25% Full	200	LF	\$ 24.50	\$ 4,900.00
		TV Storm Lines (Include DVD & Report)	200	LF	\$ 4.25	\$ 850.00
		<b>SUBTOTAL</b>				<b>\$ 8,565.00</b>
18	2804 Rotherwood Dr	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		42" PIPE - Cleaning less than 25% Full	180	LF	\$ 31.50	\$ 5,670.00
		TV Storm Lines (Include DVD & Report)	180	LF	\$ 4.25	\$ 765.00
		<b>SUBTOTAL</b>				<b>\$ 7,885.00</b>
19	2569 Arldowne Dr	Traffic Control Minor - Includes Cones & Signage	1	EA	\$ 1,450.00	\$ 1,450.00
		30" PIPE - Cleaning less than 25% Full	350	LF	\$ 18.25	\$ 6,387.50
		TV Storm Lines (Include DVD & Report)	350	LF	\$ 4.25	\$ 1,487.50
		<b>SUBTOTAL</b>				<b>\$ 9,325.00</b>
		<b>TOTAL</b>				<b>\$ 81,937.50</b>



**2023 Stormwater System Repair Projects ~ Task 5**

Proj. No.	Address	Description	Quantity	Unit	Unit Price	Extended Price
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		Uncover Buried Junction Box (4'-7.9')	1	EA	\$ 1,200.00	\$ 1,200.00
		Haul-Off Soil Material	3	CY	\$ 125.00	\$ 375.00
		Adjust manhole Cover in Soil (complete, includes re	1	EA	\$ 910.00	\$ 910.00
		Sodding, Complete-Fescue	2	SY	\$ 25.00	\$ 50.00
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		<b>SUBTOTAL</b>				<b>\$ 6,050.00</b>
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		<b>SUBTOTAL</b>				<b>\$ 9,325.00</b>
		<b>TOTAL</b>				<b>\$ 81,937.50</b>



## MEMO

**To:** Honorable Mayor and City Council Members  
**From:** Ishri Sankar, Public Works Director  
**CC:** Tami Hanlin, City Manager  
**Date:** November 13, 2023  
**RE:** Memo for TO#7 – Ditch Restoration at 1590 Lilburn Stone Mountain Road

---

### **Description for on the Agenda:**

Approval of Task Order #7 of FY 2024 Stormwater Repair Projects per the City's Procurement Policy

### **Issue:**

Degraded ditch at 1590 Lilburn Stone Mountain Road that needs to be re-established to its intentional flow pattern

### **Recommendation:**

Approval for Staff to Authorize Task Order #7

### **Background:**

The parcel at 1590 Lilburn Stone Mountain Road has a ditch which receives flow from the right of way of Lilburn Stone Mountain Road. The ditch has been degraded and needs to be reestablished and energy dissipation measures installed to insure proper drainage of the concentrated flow to a natural stream on the property. The 3 standby stormwater repair contractors engaged under RFP2023-016 provided proposals using their unit prices and a not to exceed price was established. A task order is prepared in the amount of \$38,538.14, which includes a 15% contingency. After review, staff recommends award to Utility Asset Management, Inc.

### **Financial Impact:**

Budget not to exceed \$38,538.14.



**STORMWATER MAINTENANCE AND REPAIR  
CONTRACT AGREEMENT (RFP 2023-016)  
TASK ORDER #7**

**Ditch Restoration at 1590 Lilburn Stone Mountain Road**

This TASK ORDER between the parties is entered pursuant to the CONTRACT AGREEMENT (RFP #2023-016) and shall serve as authorization by the City of Tucker to UTILITY ASSET MANAGEMENT, INC. ("CONTRACTOR") to perform the services described herein pursuant to the terms and conditions, mutual covenants and promises provided herein and in the CONTRACT AGREEMENT (RFP #2023-016). Now therefore, the parties agree as follows:

**Location of Project:**

1. 1590 Lilburn Stone Mountain Road

**Description of Services:** The services to be performed by the CONTRACTOR pursuant to this TASK ORDER (the "WORK"), include, but are not limited to, the following:

The work required under this contract includes furnishing materials, qualified labor, equipment, traffic control, erosion control, grouting, bypass pumping and site restoration.

1. Regrade ditch per GDOT Standard D49. Bottom width of ditch is 48".
2. Move landscape debris as necessary to clear ditch.
3. Remove trash.
4. Place rip rap at end of flume for a length of 70 feet along the re-established ditch in accord with GSWCC Erosion Control Manual Structural Measure St1.
5. Mulch all disturbed areas.
6. Clean work area.

**Information to be provided by the CITY:**

- Scope of work

**CONTRACTOR Deliverables to CITY:**

- Completed work per Exhibit A – SCOPE OF WORK

**Construction per Design Specifications and Guidelines:**

**Total Not to Exceed Fee                      \$ 38,538.14**

This TASK ORDER is subject to the terms and conditions of the original CONTRACT AGREEMENT (RFP #2023-016) as well as the mutual covenants contained herein.

**General Scope of Service:** The WORK under this TASK ORDER is to be commenced upon receipt of “Notice to Proceed” (NTP). The WORK will be completed within 60 calendar days after Notice to Proceed.

The CONTRACTOR shall prepare a schedule showing milestone completion dates based on completing the WORK within 60 calendar days (hereinafter referred to as the “Schedule for Completion”), excluding City review time. The Schedule for Completion will be revised to reflect the actual NTP date and will be updated as required throughout the project duration.

Every 30 days commencing with the execution of the TASK ORDER, the CONTRACTOR shall submit a report which shall include, but not be limited to, a narrative describing actual work accomplished during the reporting period, a description of problem areas, current and anticipated delaying factors and their impact, explanations of corrective actions taken or planned, and any newly planned activities or changes in sequence (hereinafter referred to as “Narrative Report”). Such report shall also include an indication of the number of hours of work completed by CONTRACTOR in each of the job rate categories included in the CONTRACT AGREEMENT (RFP #2023-016). No invoice for payment shall be submitted and no payment whatsoever will be made to the CONTRACTOR until the Schedule for Completion, and the completion of Narrative Reports are updated and submitted to the City. In no event shall payment be made more often than once every 30 days.

The CONTRACTOR shall coordinate and attend periodic meetings with the CITY regarding the status of the TASK ORDER. The CONTRACTOR shall submit transmittals of all correspondence, telephone conversations, and minutes of project meetings.

The CONTRACTOR shall be responsible for the professional quality, technical accuracy, and the coordination of interpreting all designs, drawings, specifications, and other services furnished by or on behalf of the City pursuant to this TASK ORDER. The CONTRACTOR shall correct or revise, or cause to be corrected or revised, any errors or deficiencies in the designs, drawings, specifications, and other services furnished for this TASK ORDER. All revisions shall be coordinated with the CITY prior to issuance. The CONTRACTOR shall also be responsible for any claim, damage, loss or expense from the incorrect interpretation of provided designs, drawings, and specifications pursuant to this TASK ORDER.

CONTRACTOR agrees that fees are earned pursuant to the WORK performed, which in no event shall exceed the amount set forth in the attached Fee Schedule and which hourly rate shall in no event exceed that provided in the Contract Agreement. Accordingly, invoices shall be submitted pursuant to completion of the Work performed based upon percentage.

If the City in good faith determines that the CONTRACTOR has failed to perform or deliver any service or product as required, the CONTRACTOR shall not be entitled to any compensation under the Contract until such service or product is performed or delivered. In this event, the City may withhold that portion of the CONTRACTOR'S compensation which represents payment for services or products that were not performed or delivered. To the extent that the CONTRACTOR'S failure to perform or deliver in a timely manner causes the City to incur costs, the City may deduct the amount of such incurred costs from any amounts payable to CONTRACTOR. The City's authority to deduct such incurred costs shall not in any way affect the City's authority to terminate the Contract. In the event that the CONTRACTOR owes the City any sum under the terms of the Contract, pursuant to any judgment, or pursuant to any law, the City may set off the sum owed to the City against any sum owed by the City to the CONTRACTOR in the City's sole discretion.

**Attachments:**

- EXHIBIT A – SCOPE OF WORK
- EXHIBIT B – COST PROPOSAL (in accordance with rates established in RFP 2023-016)
- EXHIBIT C – ADDITIONAL TERMS FEDERAL FUNDS

CITY OF TUCKER:

CONTRACTOR: UTILITY ASSET  
MANAGEMENT, INC.

By: \_\_\_\_\_

By: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

Attest: \_\_\_\_\_

Bonnie Warne, City Clerk

(Seal)

Approved as to form:

\_\_\_\_\_

Ted Baggett, City Attorney





## **2023 Storm System Improvements, Task 7, 1590 Lilburn Stone Mountain Road**

September 19, 2023

### **Request for Quote**

The selected contractors are requested to provide a proposed unit price to not exceed amount based on the categories and unit prices provided per the contract for RFP 2023-016 to provide maintenance at the aforementioned location.

The quote shall be generated based upon the categories and unit prices per the contract agreement associated with RFP 2023-016 between the City and the selected contractors and can be submitted to Jeff Mueller, Public Works Deputy Director via email at [jmueller@tuckerga.gov](mailto:jmueller@tuckerga.gov), by 4:00 PM on Friday, September 29, 2023.

The contractors are advised to visit the site. If you would like to have a meeting on site with Public Works staff, contact Jeff Mueller via email or at 470-714-8494. Please note that he will be available to meet at the site until close of business September 26, 2023.

### **Project Background**

1590 Lilburn Stone Mountain [1590] is real property owned by the city of Tucker. A sidewalk flume intercepts stormwater runoff in the gutter of Lilburn Stone Mountain Road and deposits it onto the 1590 property. The current ditch has been obstructed with debris and the concentrated flow from the sidewalk flume fans out and seeks different paths to the well defined channel, and potentially reaches neighboring properties.

The city desires to reestablish the ditch within its 1590 parcel.

### **Scope of Work**

1. 1590 Lilburn Stone Mountain Road. Clear debris and reestablish ditch on property -see accompanying exhibit.

The work required under this contract includes furnishing materials, qualified labor, equipment, traffic control, erosion control, and site restoration.

1. Regrade ditch per GDOT Standard D49. Bottom width of ditch is 48".
2. Move landscape debris as necessary to clear ditch.
3. Remove trash
4. Place rip rap at end of flume for a length of 70 feet along the reestablished ditch in accord with GSWCC Erosion Control Manual Structural Measure St1.
5. Mulch all disturbed areas
6. Clean work area.



**General conditions**

1. The Contractor shall maintain access to residential properties as necessary by detours or covering of the work area when not mobilized.
2. The Contractor shall furnish, install, maintain and remove all necessary traffic signs, barricades, lights, signals, cones and other traffic control devices, and all flagging and other means of traffic protection and guidance as required by Special Provision 150 of the Georgia Department of Transportation. Such work shall be considered incidental to the overall contract, and no additional compensation will be made.
3. The Contractor will be responsible for calling in and identifying utility locations. The City shall be notified of any potential utility conflicts.
4. Specifications in accord with terms and conditions of RFP2023-016 contract.

Thank you for your interest in the City of Tucker.



Find Parcel ID or Address

Map navigation controls: zoom in (+), zoom out (-), home, refresh, back, forward.

OBSTRUCTING DEBRIS AND  
GROUND LITTER CREATING A  
POTENTIAL DIVERSION ONTO  
1636 PARCEL

1

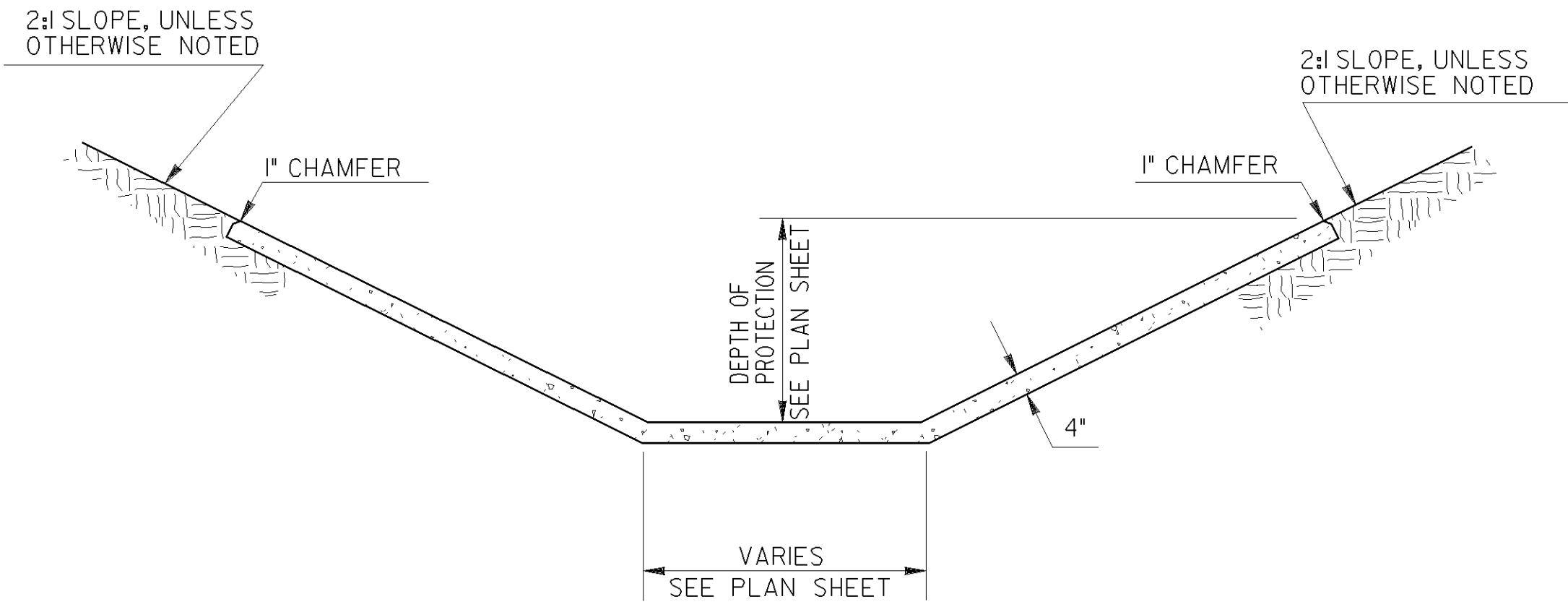
SMOKE RISE CROSSING PARK

PREFERRED DITCH  
ROUTE:  
CONTRACTOR TO  
REMOVE DEBRIS  
AND REESTABLISH  
DITCH ALIGNMENT

APPROXIMATELY  
80 LINEAR FEET

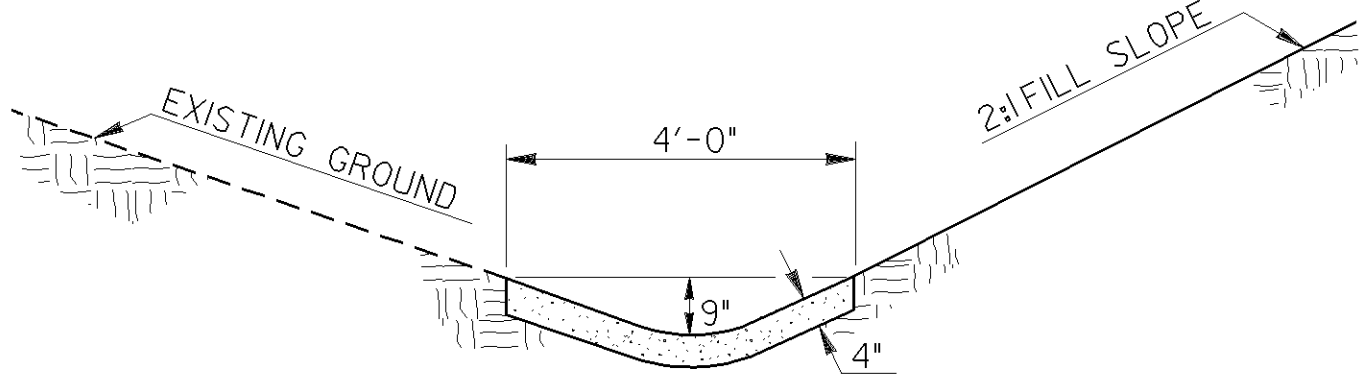
CURB OPENING  
FLUME





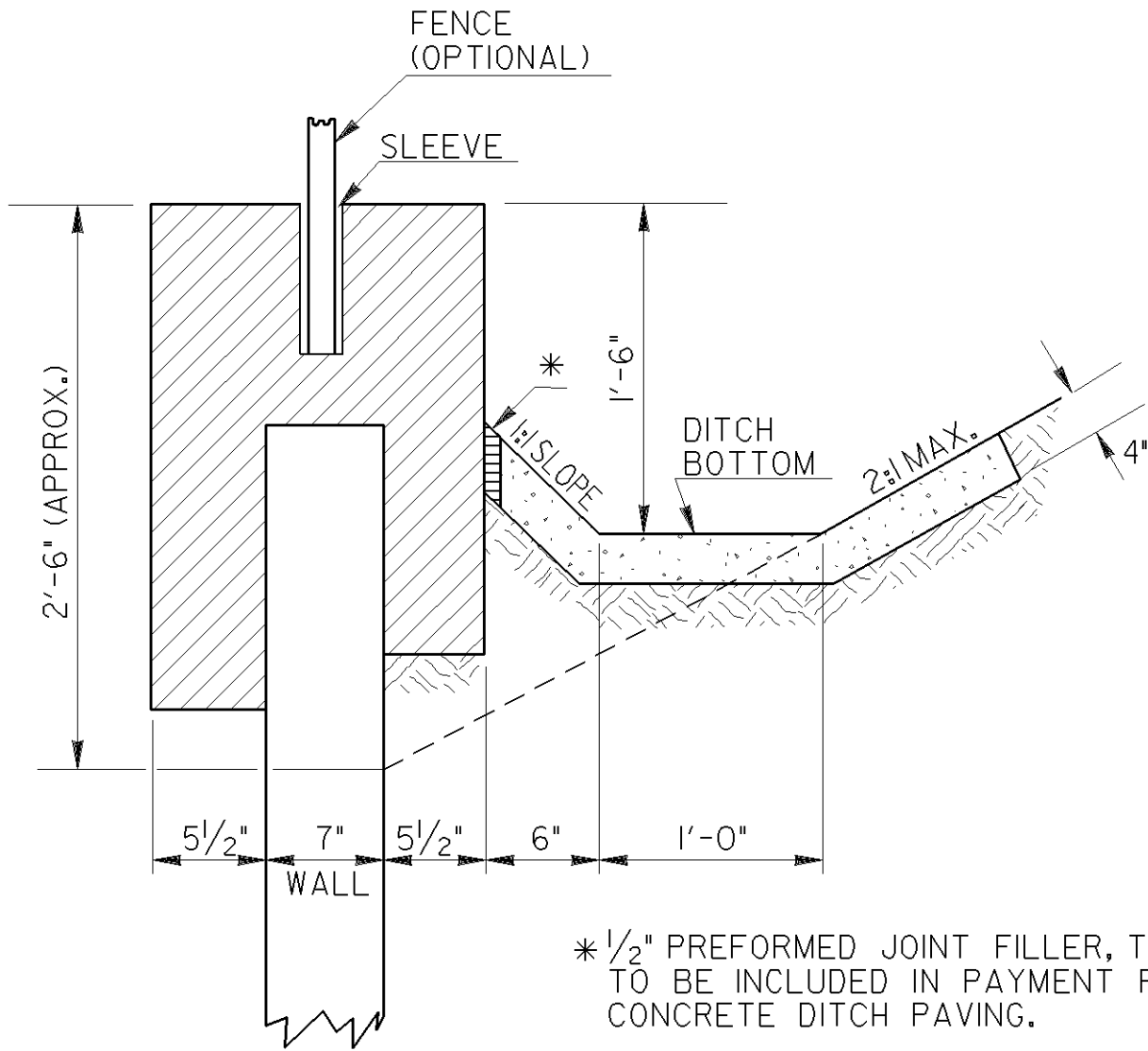
TYPICAL FLAT BOTTOM PAVED DITCH

- GENERAL NOTES:
1. SEE CONSTRUCTION DETAIL D-10 (4" CONCRETE DITCH PAVING DETAILS AND QUANTITIES)
  2. WEEP HOLE LOCATION SEE CONSTRUCTION DETAIL D-10

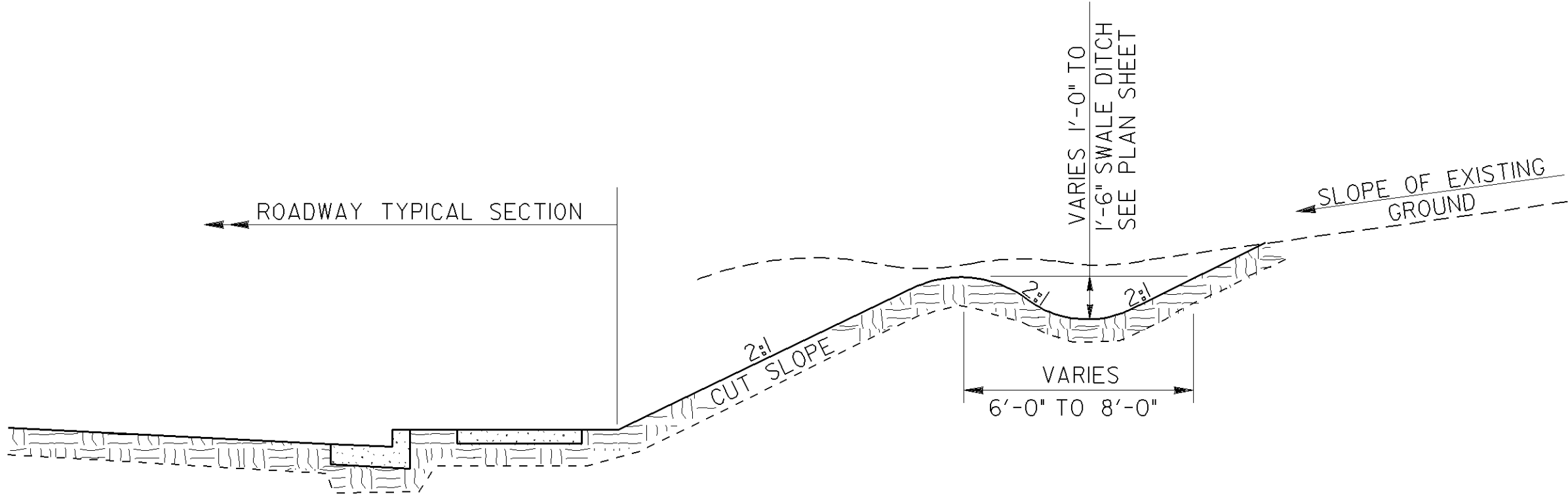


PAVED SWALE DITCH

- GENERAL NOTES:
1. CONCRETE SHALL BE PER SECTION 441.
  2. EARTH SHALL BE THOROUGHLY TAMPED OVER ENTIRE AREA UNDER DITCH PAVEMENT.

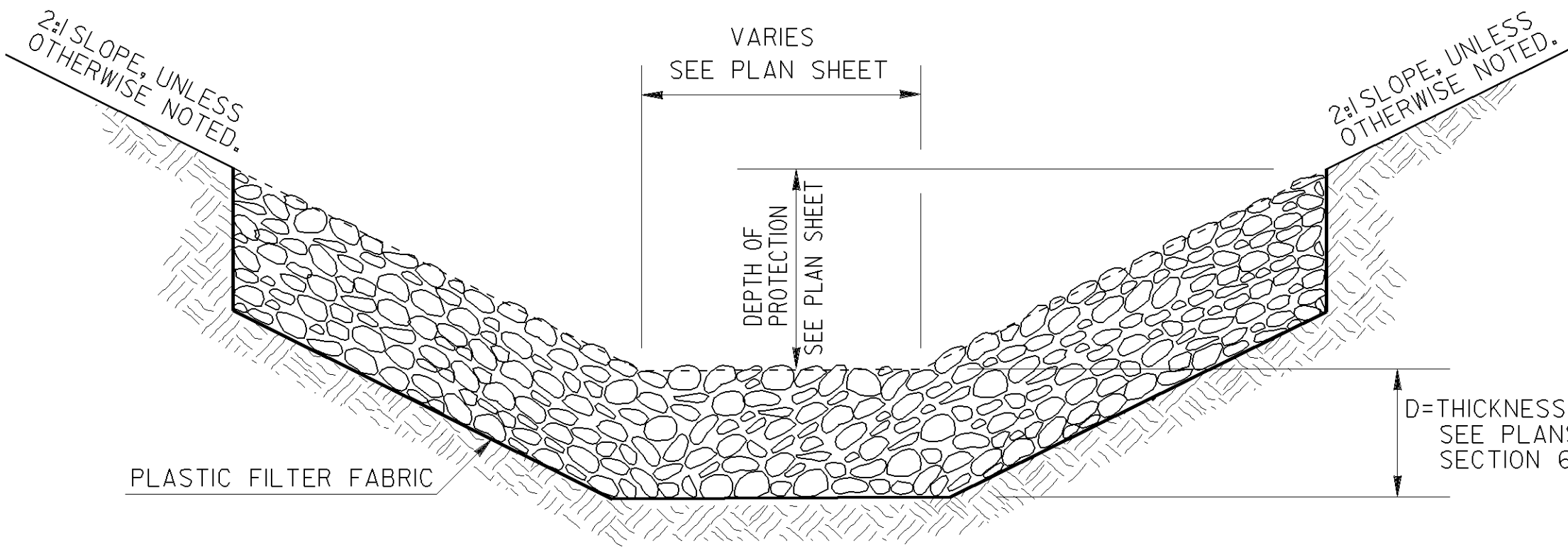


PAVED DITCH  
(IN BACK OF RETAINING WALL)



DETAIL OF SWALE DITCH

- GENERAL NOTES:
1. APPLICABLE AS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER ON CONSTRUCTION.
  2. TO BE PAID FOR AS UNCLASSIFIED EXCAVATION OR GRADING COMPLETE.



TYPICAL FLAT BOTTOM RIP RAP DITCH

- GENERAL NOTES:
1. BASIS OF PAYMENT: STONE RIP RAP, PER SQ. YD.

			DATE	DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA	
			REVISION	CONSTRUCTION DETAIL DITCH BACK OF RETAINING WALL SWALE DITCHES; RIP RAP DITCH	
				NO SCALE	FEBRUARY, 2011
			BY		NUMBER D-49

# **MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA**

**2016 Edition**



**Georgia Soil and Water Conservation Commission**

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# Storm Drain Outlet Protection

St



## DEFINITION

Paved and/or riprapped channel sections, placed below storm drain outlets.

## PURPOSE

To reduce velocity of flow before entering receiving channels below storm drain outlets.

## CONDITIONS

This standard applies to all storm drain outlets, road culverts, paved channel outlets, etc., discharging into natural or constructed channels. Analysis and/or treatment will extend from the end of the conduit, channel or structure to the point of entry into an existing stream or publicly maintained drainage system.

## DESIGN CRITERIA

Structurally lined aprons at the outlets of pipes and paved channel sections shall be designed according to the following criteria:

### Capacity

Peak stormflow from the 25-year, 24-hour frequency storm or the storm specified in Title 12-7-1 of the Official Code of Georgia Annotated or the design discharge of the water conveyance structure, whichever is greater.

### Tailwater Depth

The depth of tailwater immediately below the pipe outlet must be determined for the design capacity of the pipe. Manning's Equation may be used to determine tailwater depth. If the tailwater depth is less than half the diameter of the outlet pipe, it shall be classified as a Minimum Tailwater Condition. If the tailwater depth is greater than half the pipe diameter, it shall be classified as a

Maximum Tailwater Condition. Pipes that outlet onto flat areas with no defined channel may be assumed to have a Minimum Tailwater Condition.

## Apron Length and Thickness

The apron length and  $d_{50}$ , stone median size, shall be determined from the curves according to tailwater conditions:

Minimum Tailwater- Use Figure 6-34.1

Maximum Tailwater- Use Figure 6-34.2

Maximum Stone Size =  $1.5 \times d_{50}$

Apron Thickness =  $1.5 \times d_{max}$

## Apron Width

If the pipe discharges directly into a well-defined channel, the apron shall extend across the channel bottom and up the channel banks to an elevation one foot above the maximum tailwater depth or to the top of the bank (whichever is less). If the pipe discharges onto a flat area with no defined channel, the width of the apron shall be determined as follows:

- The upstream end of the apron, adjacent to the pipe, shall have a width three times the diameter of the outlet pipe.
- For a Minimum Tailwater Condition, the downstream end of the apron shall have a width equal to the pipe diameter plus the length of the apron. Refer to Figure 6-34.1.
- For a Maximum Tailwater Condition, the down stream end shall have a width equal to the pipe diameter plus 0.4 times the length of the apron. Refer to Figure 6-34.2.

## Bottom Grade

The apron shall be constructed with no slope along its length (0.0% grade). The invert elevation of the downstream end of the apron shall be equal to the elevation of the invert of the receiving channel. There shall be no overfall at the end of the apron.

## Side Slope

If the pipe discharges into a well-defined channel, the side slopes of the channel shall not be steeper than 2:1.

## Alignment

The apron shall be located so that there are no bends in the horizontal alignment.

## Geotextile

Geotextiles should be used as a separator between the graded stone, the soil base, and the abutments. The geotextile will prevent the migration of soil particles from the subgrade into the graded stone. The geotextile shall be specified in accordance with AASHTO M288-06 Section 8, *Geotextile Property Requirements*. The geotextile should be placed immediately adjacent to the subgrade without any voids.

## Materials

The apron may be lined with riprap, grouted riprap, or concrete. The median sized stone for riprap,  $d_{50}$ , shall be determined from the curves, Figures 6-34.1 and 6-34.2, according to the tail-water condition. The gradation, quality and placement of riprap shall conform to Appendix C.

Refer to Figure 6-34.4, for alternative structures to achieving energy dissipation at an outlet. For information regarding the selection and design of these alternative energy dissipators, refer to:

FHWA Standard (REF. Hydraulic Design of Energy Dissipators for Culverts and Channels; HEC No. 14, FHWA, Available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

## CONSTRUCTION SPECIFICATIONS

1. Ensure that the subgrade for the filter and riprap follows the required lines and grades shown in the plan. Compact any fill required in the subgrade to the density of the surrounding undisturbed material. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.
2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.
3. Geotextile must meet design requirements and be properly protected from punching or tearing during installation. Repair any damage by removing the riprap and placing another piece of filter fabric over the damaged area. All connecting joints should overlap a

minimum of 1 ft. If the damage is extensive, replace the entire filter fabric.

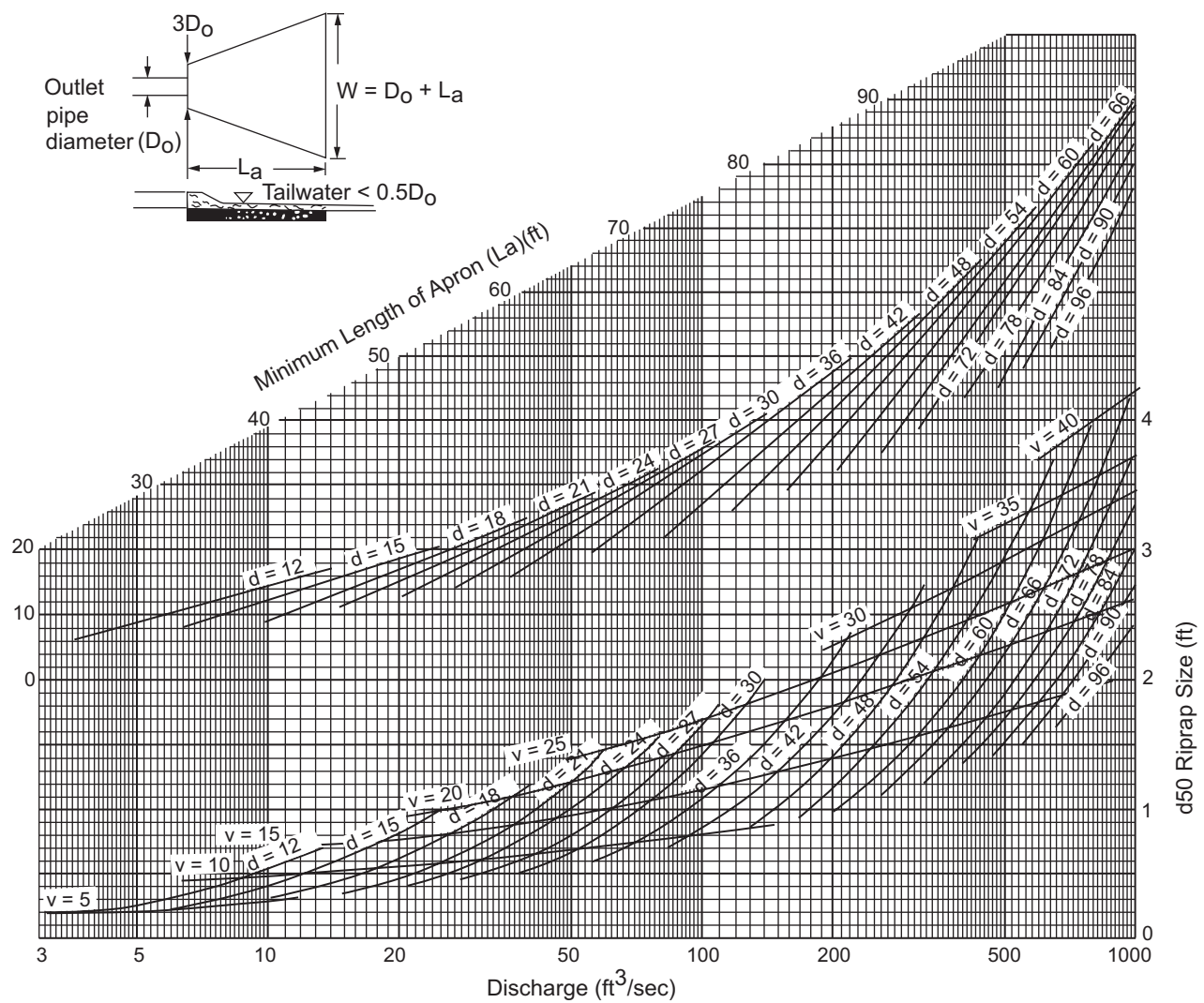
4. Riprap may be placed by equipment, but take care to avoid damaging the filter.
5. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter.
6. Construct the apron on zero grade with no overfall at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.
7. Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed to fit site conditions, place it in the upper section of the apron.
8. Immediately after construction, stabilize all disturbed areas with vegetation.
9. Stone quality - Select stone for riprap from field stone or quarry stone. The stone should be hard, angular, and highly weather-resistant. The specific gravity of the individual stones should be at least 2.5.
10. Filter - Install a filter to prevent soil movement through the openings in the riprap. The filter should consist of a graded gravel layer or a synthetic filter cloth. See Appendix C; p. C-1.

## MAINTENANCE

Inspect riprap outlet structures after heavy rains to see if any erosion around or below the riprap has taken place or if stones have been dislodged. Immediately make all needed repairs to prevent further damage.

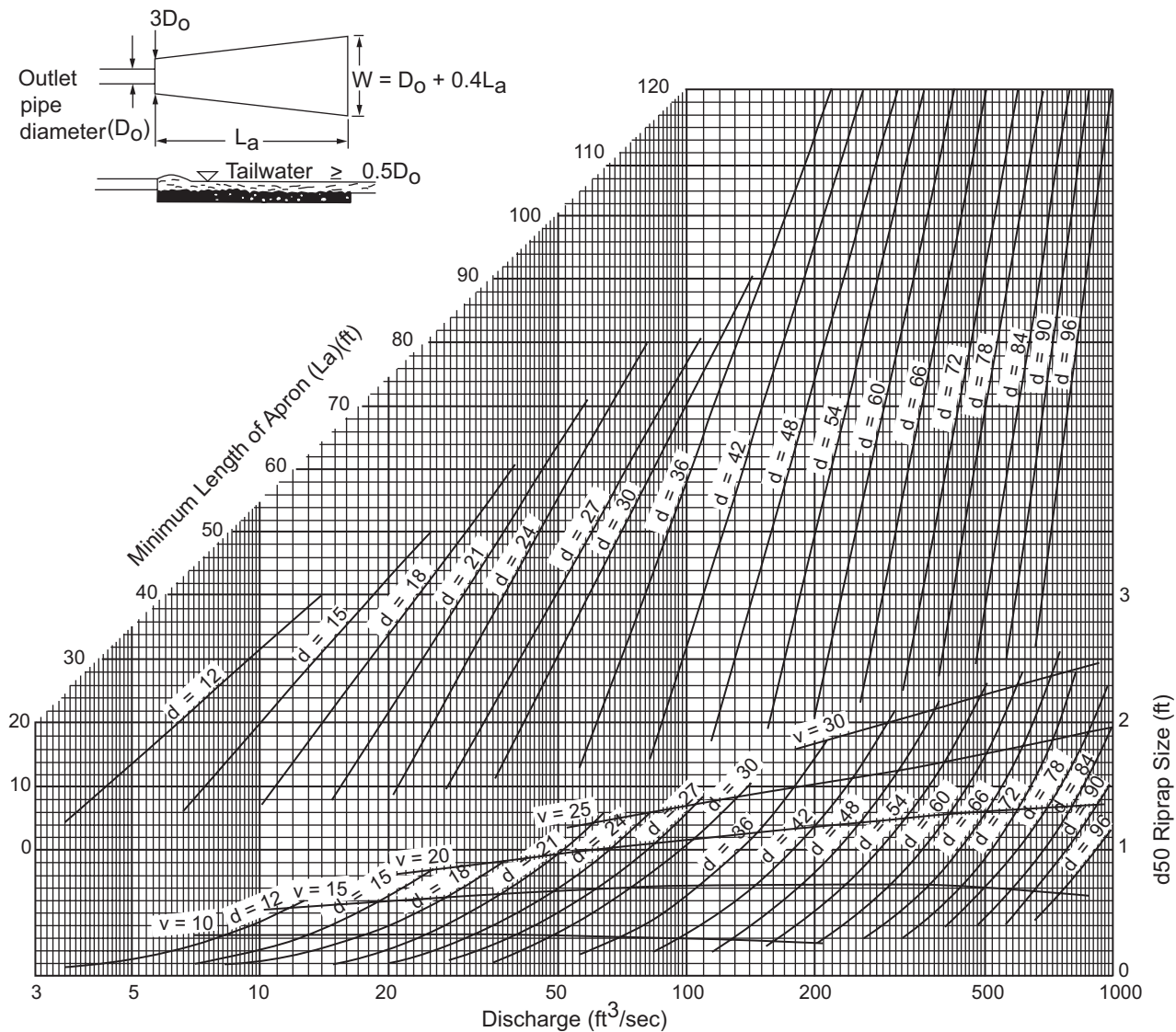
### TO BE SHOWN ON THE EROSION AND SEDIMENT CONTROL PLAN

1. The flow characteristics of the pipe at full flow including pipe diameter, flow rate (cfs), velocity (fps), and tail-water condition.
2. The dimensions of the apron including length ( $L_a$ ), width at the headwall ( $W_1$ ), downstream width ( $W_2$ ), average stone diameter ( $d_{50}$ ), and stone depth ( $D$ ) designed in accordance with Figures 6-34.1 and 6-34.2.



Curves may not be extrapolated.

**Figure 6-34.1 - Design of Outlet Protection From a Round Pipe Flowing Full, Minimum Tailwater Condition ( $T_w < 0.5$  Diameter)**



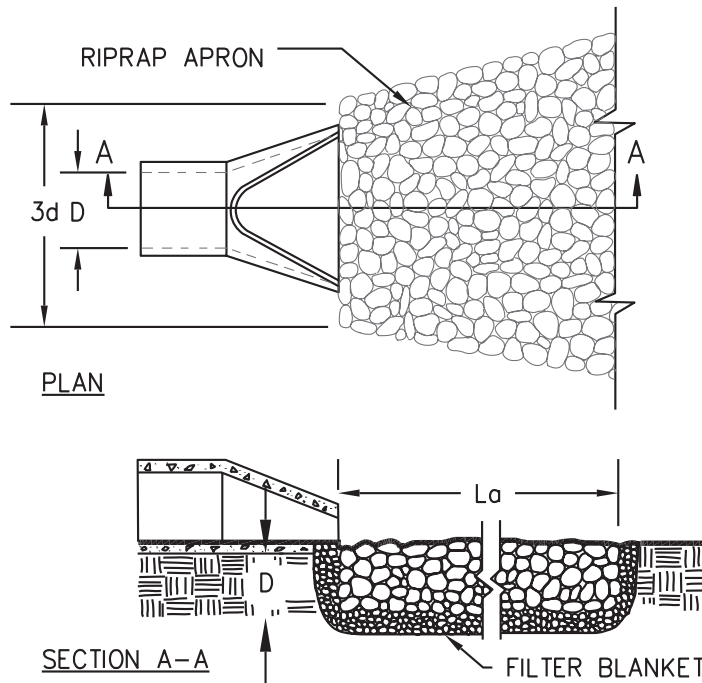
Curves may not be extrapolated.

**Figure 6-34.2 - Design of Outlet Protection From a Round Pipe Flowing Full, Maximum Tailwater Condition ( $T_w > 0.5$  Diameter)**



# RIPRAP OUTLET PROTECTION

## PIPE OUTLET TO FLAT AREA -- NO WELL DEFINED CHANNEL



### NOTES:

1. L<sub>a</sub> IS THE LENGTH OF THE RIPRAP APRON.
2. D = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6".
3. IN A WELL-DEFINED CHANNEL, EXTEND THE APRON UP THE CHANNEL BANKS TO AN ELEVATION OF 6" ABOVE THE MAXIMUM TAILWATER DEPTH OR TO THE TOP OF THE BANK (WHICHEVER IS LESS).
4. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND THE SOIL FOUNDATION.

## PIPE OUTLET TO WELL DEFINED CHANNEL

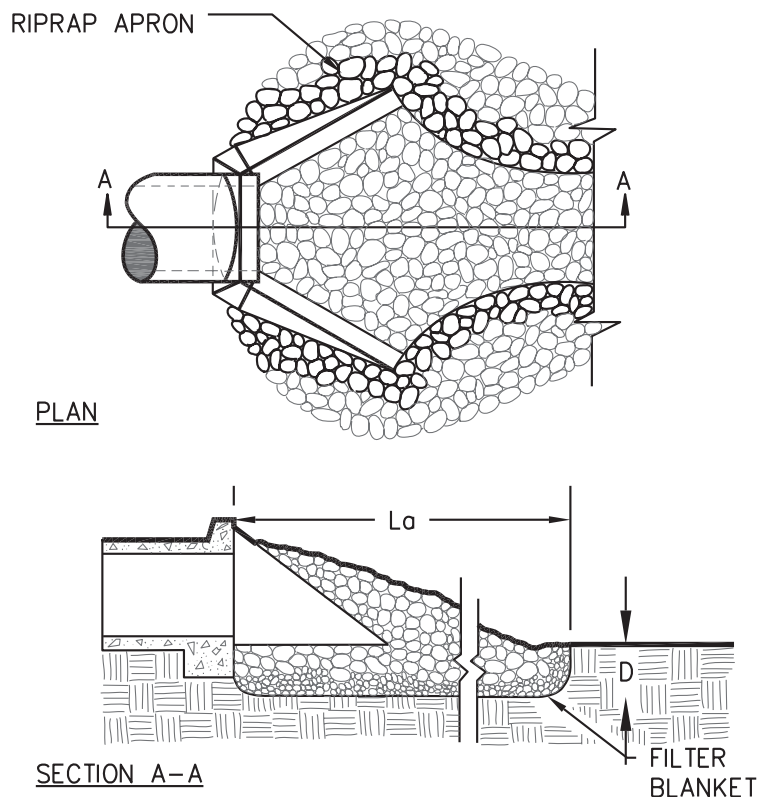
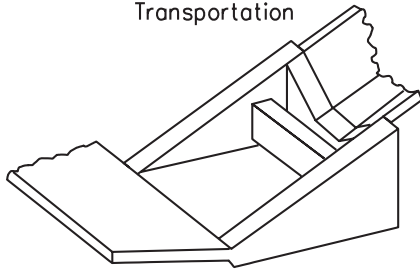


Figure 6-34.3 - Riprap Outlet Protection (Modified From Va SWCC)

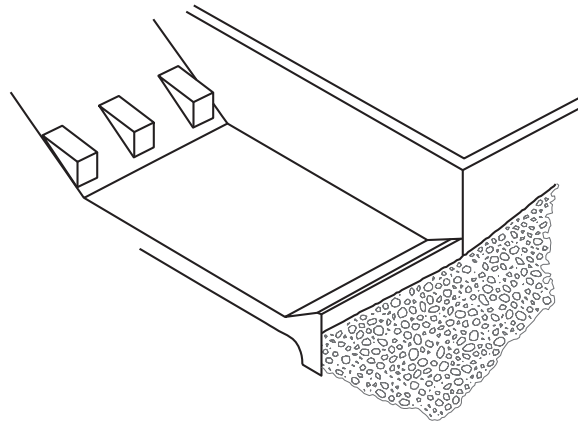
# ALTERNATE STRUCTURES FOR ENERGY DISSIPATION AT AN OUTLET

(Modified from Goldman, Jackson, and Bursztynsky)

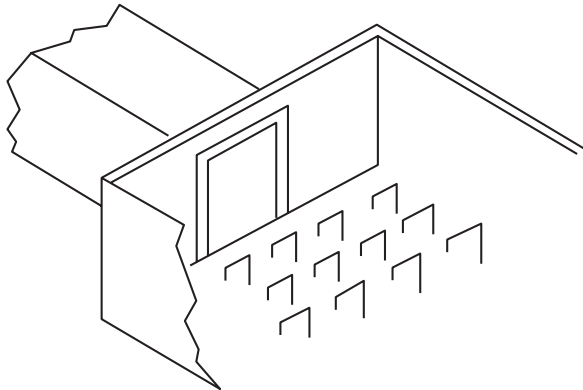
Virginia Department of Highways and  
Transportation



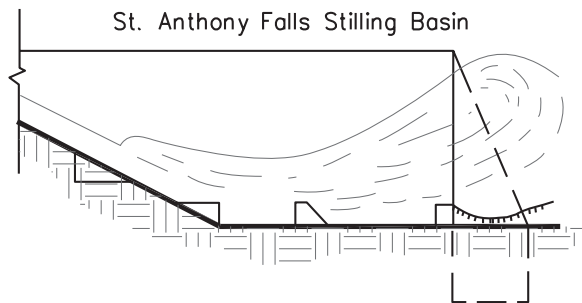
Colorado State University Rigid  
Boundary Basin



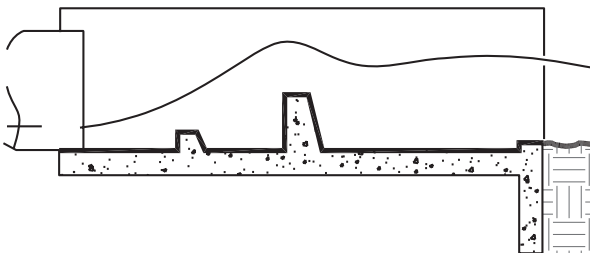
USBR Type IV Basin



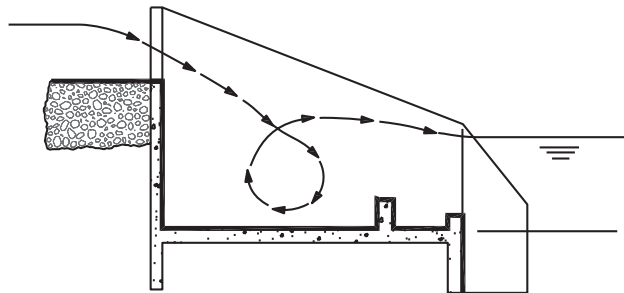
St. Anthony Falls Stilling Basin



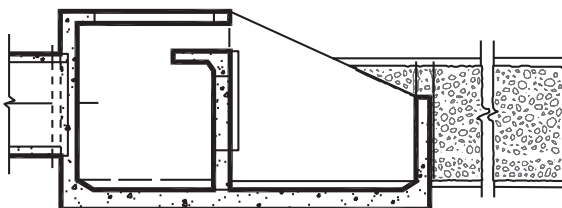
Contra Costa County, Calif.



Straight Drop Spillway Stilling Basin



USBR Type VI Baffle Wall Basin



T-fitting on CMP Outlet



**Figure 6-34.4**

UNIT PRICE SCHEDULE		
Item	Projected Units	Unit
<b>General Conditions</b>		
Mobilization		EA
Out of Scope Work, Foreman		HR
Out of Scope Work, Laborer		HR
<b>Traffic Control</b>		
Traffic Control Minor 1 – Includes Continuous Crew of 2 Flagmen		Per Day
Traffic Control Minor 2 – Includes Cones and Signage		Per Day
Traffic Control Major - Included Road Closure Detours, Signs,		EA
Mobile Electronic Detour Signs		Per Day
<b>TV Inspection and Jet-Vac Cleaning</b>		
TV Storm Lines (includes DVD & Report)		LF
Visual Inspection (Pictures), per Project (During Construction)		EA
Hydro-Excavation complete (onsite hours only)		Per Hour
<b>Storm Line Cleaning (less than 25% full)</b>		
12" PIPE - Cleaning less than 25% full		LF
15" PIPE - Cleaning less than 25% full		LF
18" PIPE - Cleaning less than 25% full		LF
21" PIPE - Cleaning less than 25% full		LF
24" PIPE - Cleaning less than 25% full		LF
30" PIPE - Cleaning less than 25% full		LF
36" PIPE - Cleaning less than 25% full		LF
42" PIPE - Cleaning less than 25% full		LF
48" PIPE - Cleaning less than 25% full		LF
54" PIPE - Cleaning less than 25% full		LF
60" PIPE - Cleaning less than 25% full		LF
66" PIPE - Cleaning less than 25% full		LF
72" PIPE - Cleaning less than 25% full		LF
78" PIPE - Cleaning less than 25% full		LF
84" PIPE - Cleaning less than 25% full		LF
90" PIPE - Cleaning less than 25% full		LF
96" PIPE - Cleaning less than 25% full		LF
<b>Storm Line Cleaning (25% full or greater)</b>		
12" PIPE - Cleaning 25% full or greater		LF
15" PIPE - Cleaning 25% full or greater		LF
18" PIPE - Cleaning 25% full or greater		LF
21" PIPE - Cleaning 25% full or greater		LF
24" PIPE - Cleaning 25% full or greater		LF
30" PIPE - Cleaning 25% full or greater		LF
36" PIPE - Cleaning 25% full or greater		LF
42" PIPE - Cleaning 25% full or greater		LF
48" PIPE - Cleaning 25% full or greater		LF
54" PIPE - Cleaning 25% full or greater		LF
60" PIPE - Cleaning 25% full or greater		LF
66" PIPE - Cleaning 25% full or greater		LF
72" PIPE - Cleaning 25% full or greater		LF
78" PIPE - Cleaning 25% full or greater		LF
84" PIPE - Cleaning 25% full or greater		LF
90" PIPE - Cleaning 25% full or greater		LF
96" PIPE - Cleaning 25% full or greater		LF
<b>Specialty Storm Line Cleaning,</b>		
Applicable to heavy roots, Large diameter rocks, large debris, etc		
12" to 36" PIPE		LF
42" to 96" PIPE		LF

<b>Spiral Rib Corr. Steel Pipe (14 ga. Tp. 2 Alum)</b>		
<b>Includes excavation, backfill, &amp; compaction</b>		
15" SRCMP		LF
18" SRCMP		LF
24" SRCMP		LF
30" SRCMP		LF
36" SRCMP		LF
42" SRCMP		LF
48" SRCMP		LF
54" SRCMP		LF
60" SRCMP		LF
72" SRCMP		LF
84" SRCMP		LF
96" SRCMP		LF
<b>Reinforced Concrete Pipe (RCP) Tp 3</b>		
<b>Includes excavation, backfill, &amp; compaction</b>		
18" RCP		LF
24" RCP		LF
30" RCP		LF
36" RCP		LF
42" RCP		LF
48" RCP		LF
54" RCP		LF
60" RCP		LF
72" RCP		LF
<b>High Density Polyethaline Pipe (HDPE)</b>		
<b>Includes excavation, backfill, &amp; compaction</b>		
15" HDPE		LF
18" HDPE		LF
24" HDPE		LF
30" HDPE		LF
36" HDPE		LF
42" HDPE		LF
48" HDPE		LF
54" HDPE		LF
60" HDPE		LF
72" HDPE		LF
<b>Additional Depth for Pipes</b>		
<b>Includes excavation, backfill, &amp; compaction</b>		
Invert >8.1' to 12'		LF
Invert >12'		LF
<b>Metal Flared End Sections: (GADOT STD 1120)</b>		
18" MFES 16 Gauge In Place		EA
24" MFES 14 Gauge In Place		EA
30" MFES 14 Gauge In Place		EA
36" MFES 14 Gauge In Place		EA
42" MFES 14 Gauge In Place		EA
<b>Metal Safety End Sections: 4:1 Slope GADOT Special Detail</b>		
18" SFES 16 Gauge In Place		EA
24" SFES 16 Gauge In Place		EA
30" SFES 12 Gauge In Place		EA
36" SFES 12 Gauge In Place		EA
42" SFES 12 Gauge In Place		EA
48" SFES 12 Gauge In Place		EA
<b>Precast Concrete Flared End Section</b>		

18" CFES In Place		EA
24" CFES In Place		EA
30" CFES In Place		EA
36" CFES In Place		EA
42" CFES In Place		EA
<b>Precast Concrete Safety Flared End Section</b>		
18" CFSES In Place		EA
24" CFSES In Place		EA
30" CFSES In Place		EA
36" CFSES In Place		EA
42" CFSES In Place		EA
<b>Precast Headwalls</b>		
Precast Headwall for 18" Pipe		EA
Precast Headwall for 24" Pipe		EA
Precast Headwall for 30" Pipe		EA
Precast Headwall for 36" Pipe		EA
Precast Headwall for 42" Pipe		EA
Precast Headwall for 48" Pipe		EA
Precast Headwall for 18" Pipe w/ Velocity Dissipater		EA
Precast Headwall for 24" Pipe w/ Velocity Dissipater		EA
Precast Headwall for 30" Pipe w/ Velocity Dissipater		EA
Precast Headwall for 36" Pipe w/ Velocity Dissipater		EA
Precast Headwall for 42" Pipe w/ Velocity Dissipater		EA
Precast Headwall for 48" Pipe w/ Velocity Dissipater r		EA
<b>Cast-in-Place Concrete Headwall</b>		
Cast-in-Place Concrete Headwall- Dekalb Std. Detail		CY
Cast-in-Place Concrete Headwall- GDOT Std. Det. 1125		CY
<b>Brick-in-Place Headwall</b>		
Brick Headwall for 18" Pipe		EA
Brick Headwall for 24" Pipe		EA
Brick Headwall for 30" Pipe		EA
Brick Headwall for 36" Pipe		EA
Brick Headwall for 42" Pipe		EA
Brick Headwall for 48" Pipe		EA
Brick Headwall for 54" Pipe		EA
Brick Headwall for 60" Pipe		EA
Brick Headwall for 72" Pipe		EA
<b>Rubble Masonry Headwalls (per Dekalb Co. or Gwinnett Co. Standards)</b>		
Rubble Headwall for 18" Pipe		EA
Rubble Headwall for 24" Pipe		EA
Rubble Headwall for 30" Pipe		EA
Rubble Headwall for 36" Pipe		EA
<b>Internal Pipe Point Repairs (Including cutting, trimming, jacking, etc.)</b>		
18" Diameter		LF
24" Diameter		LF
30" Diameter		LF
36" Diameter		LF
42" Diameter		LF
48" Diameter		LF
60" Diameter		LF
72" Diameter		LF
96" Diameter		LF
<b>Storm Drain Catch Basins</b>		
<b>New Std. Catch Basins shall be GDOT 1033/1034 or Dekalb Stds.</b>		
4'-Dia. Brick Catch Basin GADOT 1033/1034		VF



5'-Dia. Brick Catch Basin GADOT 1033/1034		VF
6'-Dia. Brick Catch Basin GADOT 1033/1034		VF
4'-Dia. Precast Catch Basin GADOT 1033/1034		VF
5'-Dia. Precast Catch Basin GADOT 1033/1034		VF
6'-Dia. Precast Catch Basin GADOT 1033/1034		VF
<b>Storm Drain Inlets &amp; Manholes</b>		
<b>New Std. Inlet shall be GDOT 1019/1011 or Dekalb Stds.</b>		
<b>Brick Square Inlets</b>		
4' Square Brick Inlet w/ Flush Grate Only		VF
5' Square Brick Inlet w/ Flush Grate Only		VF
6' Square Brick Inlet w/ Flush Grate Only		VF
4' Square Brick Inlet w/ Curb Hood & Grate		VF
5' Square Brick Inlet w/ Curb Hood & Grate		VF
6' Square Brick Inlet w/ Curb Hood & Grate		VF
4' Square Brick Inlet w/ Pedestal Top & Grate		VF
5' Square Brick Inlet w/ Pedestal Top & Grate		VF
6' Square Brick Inlet w/ Pedestal Top & Grate		VF
<b>Brick Round Inlets</b>		
4' Round Brick Inlet w/ Flush Grate Only		VF
5' Round Brick Inlet w/ Flush Grate Only		VF
6' Round Brick Inlet w/ Flush Grate Only		VF
4' Round Brick Inlet w/ Curb Hood & Grate		VF
5' Round Brick Inlet w/ Curb Hood & Grate		VF
6' Round Brick Inlet w/ Curb Hood & Grate		VF
4' Round Brick Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
5' Round Brick Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
6' Round Brick Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
<b>Precast Square Inlets</b>		
4' Square Precast Inlet w/ Flush Grate Only		VF
5' Square Precast Inlet w/ Flush Grate Only		VF
6' Square Precast Inlet w/ Flush Grate Only		VF
4' Square Precast Inlet w/ Curb Hood & Grate		VF
5' Square Precast Inlet w/ Curb Hood & Grate		VF
6' Square Precast Inlet w/ Curb Hood & Grate		VF
4' Square Precast Inlet w/ Pedestal Top & Grate		VF
5' Square Precast Inlet w/ Pedestal Top & Grate		VF
6' Square Precast Inlet w/ Pedestal Top & Grate		VF
<b>Precast Round Inlets</b>		
4' Round Precast Inlet w/ Flush Grate Only		VF
5' Round Precast Inlet w/ Flush Grate Only		VF
6' Round Precast Inlet w/ Flush Grate Only		VF
4' Round Precast Inlet w/ Curb Hood & Grate		VF
5' Round Precast Inlet w/ Curb Hood & Grate		VF
6' Round Precast Inlet w/ Curb Hood & Grate		VF
4' Round Precast Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
5' Round Precast Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
6' Round Precast Inlet w/ Pedestal Top & Grate or MH Ring & Cover		VF
<b>Square Brick Manholes</b>		
4' Square Brick Manhole w/ Manhole Ring & Cover		VF
5' Square Brick Manhole w/ Manhole Ring & Cover		VF

6' Square Brick Manhole w/ Manhole Ring & Cover		VF
<b>Round Brick Manholes</b>		
4' Round Brick Manhole w/ Manhole Ring & Cover		VF
5' Round Brick Manhole w/ Manhole Ring & Cover		VF
6' Round Brick Manhole w/ Manhole Ring & Cover		VF
<b>Square Precast Manholes</b>		
4' Square Precast Manhole w/ Manhole Ring & Cover		VF
5' Square Precast Manhole w/ Manhole Ring & Cover		VF
6' Square Precast Manhole w/ Manhole Ring & Cover		VF
<b>Round Precast Manholes</b>		
4' Round Precast Manhole w/ Manhole Ring & Cover		VF
5' Round Precast Manhole w/ Manhole Ring & Cover		VF
6' Round Precast Manhole w/ Manhole Ring & Cover		VF
<b>Miscellaneous &amp; Special Structures/Components</b>		
4' Dia. Pedestal Top with Inlet Frame and Grate		EA
5' Dia. Pedestal Top with Inlet Frame and Grate		EA
6' Dia. Pedestal Top with Inlet Frame and Grate		EA
4' Dia. Pedestal Top with MH Ring & Cover		EA
5' Dia. Pedestal Top with MH Ring & Cover		EA
6' Dia. Pedestal Top with MH Ring & Cover		EA
4' Dia Round to Square		EA
5' Dia Round to Square		EA
6' Dia Round to Square		EA
Precast Replacement Top Only for Single Wing, w/ Ring & Cover, not including throat		EA
Precast Replacement Top Only for Double Wing w/Ring & Cover, not including throat		EA
4'x4' Precast Top w/ MH Ring and Cover		EA
5'x5' Precast Top w/ MH Ring and Cover		EA
Cast-in-Place Top Only w/Ring & Cover		EA
Cast-in-Place Throat Only		EA
Invert Installation, 4' Diameter		EA
Invert Installation, 5' Diameter		EA
Invert Installation, 6' Diameter		EA
Invert Installation, other configurations		SF
Uncover Buried Junction Box (<4')		EA
Uncover Buried Junction Box (4'-7.9')		EA
Uncover Buried Junction Box (8'-11.9')		EA
Uncover Buried Junction Box (>12')		EA
Brick Opening of Stormline 18" to 30" (Abandonment)		EA
Brick Opening of Stormline 36" to 54" (Abandonment)		EA
Flowable Fill Abandonment (Pumping included if needed)		CY
Pressure Grouting (Pumping included if needed)		CY
<b>Grout Connection To Structure</b>		
12" Grout Each End to Structure		EA
15" Grout Each End to Structure		EA
18" Grout Each End to Structure		EA
21" Grout Each End to Structure		EA
24" Grout Each End to Structure		EA
27" Grout Each End to Structure		EA
30" Grout Each End to Structure		EA
36" Grout Each End to Structure		EA
42" Grout Each End to Structure		EA
48" Grout Each End to Structure		EA
54" Grout Each End to Structure		EA
60" Grout Each End to Structure		EA
66" Grout Each End to Structure		EA

72" Grout Each End to Structure		EA
Grout all joint, cracks & holes, in structures, complete (structures 8' deep or less)		EA
Grout all joint, cracks & holes, in structures, complete (structures greater than 8' deep)		EA
<b>LINING REQUIREMENTS</b>		
<b>Cured In Place Pipe Liner (CIPP) - (12' or less in depth)</b>		
Includes Pre and Post Television Inspections during lining		
12" PIPE - 6.0mm (.236")		LF
15" PIPE - 7.5mm (.295")		LF
18" PIPE - 9.0mm (.354")		LF
21" PIPE - 9.0mm (.354")		LF
24" PIPE - 11.0mm (.433")		LF
30" PIPE - 13.5mm (.532")		LF
36" PIPE - 16.5mm (.650")		LF
42" PIPE - 19.5mm (.768")		LF
48" PIPE - 22.5mm (.886")		LF
54" PIPE - 25.5mm (1.004")		LF
60" PIPE - 28.5mm (1.122")		LF
66" PIPE - 31.5mm (1.240")		LF
72" PIPE - 34.5mm (1.358")		LF
78" PIPE - 37.5mm (1.476")		LF
84" PIPE - 42.0mm (1.654")		LF
90" PIPE - 45.0mm (1.772")		LF
96" PIPE - 48.0mm (1.900")		LF
Additional Cost Per 1.5mm (.0591") Thickness - 12" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 15" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 18" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 21" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 24" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 30" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 36" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 42" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 48" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 54" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 60" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 66" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 72" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 78" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 84" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 90" PIPE		LF
Additional Cost Per 1.5mm (.0591") Thickness - 96" PIPE		LF
<b>Inversion Setup</b>		
Inversion Setup Charge 15"- 36" CIPP		EACH
Inversion Setup Charge 42"- 60" CIPP		EACH
Inversion Setup Charge 66"- 96" CIPP		EACH
<b>Spin Cast / Geopolymer Lining</b>		
30" Cent. Spin Cast Lining		LF
36" Cent. Spin Cast Lining		LF
42" Cent. Spin Cast Lining		LF
48" Cent. Spin Cast Lining		LF
54" Cent. Spin Cast Lining		LF
60" Cent. Spin Cast Lining		LF
66" Cent. Spin Cast Lining		LF
		LF
<b>Slip Lining w/HDPE, Includes Grouting</b>		
15" Slip Lining		LF
18" Slip Lining		LF
24" Slip Lining		LF
30" Slip Lining		LF
36" Slip Lining		LF

42" Slip Lining		LF
48" Slip Lining		LF
54" Slip Lining		LF
60" Slip Lining		LF
<b>Slip Lining with Snap-Tite HDPE (AASHTO M326), Include Grouting</b>		
12.75" OD		LF
14" OD		LF
18" OD		LF
20" OD		LF
24" OD		LF
32" OD		LF
36" OD		LF
42" OD		LF
48" OD		LF
54" OD		LF
63" OD		LF
<b>Styrene Free - Cured In Place Pipe Liner (12' or Less in Depth)</b>		
Styrene Free 12" PIPE - 7.5mm		LF
Styrene Free 15" PIPE - 7.5mm		LF
Styrene Free 18" PIPE - 8.0mm		LF
Styrene Free 21" PIPE - 10.0mm		LF
Styrene Free 24" PIPE - 10.0mm		LF
Styrene Free 30" PIPE - 12.5mm		LF
Styrene Free 36" PIPE - 16.0mm		LF
Styrene Free 42" PIPE - 18.0mm		LF
Styrene Free 48" PIPE - 21.0mm		LF
Styrene Free 54" PIPE - 24.0mm		LF
Styrene Free 60" PIPE - 28.5mm		LF
Styrene Free 66" PIPE - 30.0mm		LF
Styrene Free 72" PIPE - 32.5mm		LF
Styrene Free 78" PIPE - 33.0mm		LF
Styrene Free 84" PIPE - 35.5mm		LF
Styrene Free 90" PIPE - 38.0mm		LF
Styrene Free 96" PIPE - 40.5mm		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 12" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 15" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 18" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 21" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 24" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 30" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 36" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 42" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 48" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 54" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 60" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 66" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 72" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 78" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 84" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 90" PIPE		LF
Additional Cost Per 1.5mm Thickness Styrene Free - 96" PIPE		LF
<b>Cast in Place Concrete</b>		
Paved Ditch/Swale (4" Thick)		SY
Driveway 4" Concrete (Residential w/4" of GAB included)		SY
Driveway 6" Concrete (Commercial w/6" of GAB included)		SY
Driveway 8" Concrete (Commercial w/6" of GAB included)		SY
Regular Duty Sidewalk (4" Thick, 3000 psi) <5' length		SY
Regular Duty Sidewalk (4" Thick, 3000 psi) 5'-10' length		SY
Regular Duty Sidewalk (4" Thick, 3000 psi) 11'-20' length		SY
Medium Duty Sidewalk (5" Thick, Fiber Reinf. 3000 psi) <5' length		SY
Medium Duty Sidewalk (5" Thick, Fiber Reinf. 3000 psi) 5'-10' length		SY
Medium Duty Sidewalk (5" Thick, Fiber Reinf. 3000 psi) 11'-20' length		SY
Heavy Duty Sidewalk (6" w/Wire Mesh, & 3500 psi) <5' length		SY

Heavy Duty Sidewalk (6" w/Wire Mesh, & 3500 psi) 5'-10' length		SY
Heavy Duty Sidewalk (6" w/Wire Mesh, & 3500 psi) 11'-20' length		SY
Curb & Gutter 6"x24"x12" High Back		LF
Curb & Gutter 6"x30"x12" High Back		LF
Curb and Gutter 6"x24"x10" Roll Back		LF
Straight Header Curb		LF
Concrete Drainage Structures Poured In Place w/ Steel		CY
High Early Strength (5000 psi)		CY
ADA Ramp		EA
<b>Road Restoration</b>		
Graded Aggregate Base		Ton
Crusher Run Stone		Ton
Asphaltic Concrete Binder Course		Ton
Asphaltic Concrete Surface Course		Ton
Tack Coat		Gal
2" Asph. Con. Hot Mix for Trench Cap		Ton
8" Thick 3000 psi- Concrete Trench Cap		CY
<b>Earthwork &amp; Grading</b>		
Tree Removal 6"-12"		EA
Tree Removal 13"-23"		EA
Tree Removal >23"		EA
Clear & Grubbing		SY
Channel Excavation		CY
Additional Excavation		CY
Haul-In Structural Fill Material		CY
Haul-Off Soil Material		CY
Finish Grading		SY
Trench Rock Excavation		CY
Debris Removal		CY
<b>Erosion Control</b>		
Stone Rip Rap Type I In Place		TON
Stone Rip Rap Type III In Place		TON
Stone Grouted Rip Rap 12" Installed		SY
Install & Remove Type A Silt Fence		LF
Fleximat Ditch Lining		SY
Install & Remove Type C Silt Fence		LF
Install & Remove Type C Silt Fence - Alternative		LF
Inlet Sediment Traps - Silt Fence Sd2		EA
Rock Bags for curb inlet/CB sediment Protection		EA
Install & Remove Orange Tree Save Fence		LF
Gabion Structures ( GDOT Section 626 & 809)		SF
Permanent Soil Reinf Mat Installed		SY
Organic Material Fiber Blanket Installed		SY
Seed & Straw (Permanent Grassing)		SY
Seed & Straw (Temporary Grassing)		SY
Sodding Complete-Fescue		SY
Sodding Complete-Bermuda		SY
Sodding Complete-Zoysia		SY
Sodding Complete-Centipede		SY
Topsoil Compete		CY
Pine Straw		EA
Straw Mulch		SY
Tree Replacement 1-1/2" Hardwood, installed		EA
Tree Replacement 2-1/2" Hardwood, installed		EA
Tree Replacement 1-1/2" Hardwood, installed		EA
Tree Replacement 2-1/2" Pine, installed		EA
Shrub Replacement: 1 gallon, installed		EA
Shrub Replacement: 3 gallon, installed		EA
Shrub Replacement: 5 gallon, installed		EA
Shrub Replacement: 7 gallon, installed		EA
Shrub Replacement: 15 gallon, installed		EA
Shrub Replacement: 30 gallon, installed		EA
Bedding Flower per flat of 18, installed		SY
Irrigation Line Replacement		LF



Irrigation Head Replacement (Builder Grade)		EA
<b>Miscellaneous Items</b>		
Connect to Existing Structures		EA
Debris Removal, Tandem Dump Truck		Per Load
Removal of Existing Non Drainage Structure		EA
Removal of Existing Drainage Structure		EA
Remove Existing Pipe all Types and Sizes		LF
Saw Cut Existing Pavements		LF
Stone #57		TON
Surge Stone		TON
No. 3's and 4's Stone		TON
Roll-Off Dumpster		EA
Relocate Existing Residential Water Meter, Including Box		EA
Install Thermal Barrier to protect water service line or other utilities		SF
Bypass pumping setup-equipment and hose placement		EA
4" Pumping Operation Time		HR
6" Pumping Operation Time		HR
8" Pumping Operation Time		HR
10" Pumping Operation Time		HR
12" Pumping Operation Time		HR
Temporary 4' Chain Link Fence		LF
Remove and Replace Existing 4' Galvanized Standard Chain Link Fence Residential		LF
Remove and Replace Existing 5' Galvanized Standard Chain Link Fence Residential		LF
Remove and Replace Existing 4' Black Vinyl Standard Chain Link Fence Residential		LF
Remove and Replace Existing 5' Black Vinyl Standard Chain Link Fence Residential		LF
Remove and Replace Existing 4' Wood Fence Residential		LF
Remove and Replace Existing 6' Wood Fence Residential		LF
Steel Plates (Typ. 5'x8' Size)		EA
Reset Existing Headwall - 18" DIA		EA
Reset Existing Headwall - 24" DIA		EA
Reset Existing Headwall - 36" DIA		EA
Reset Existing Headwall - 48" DIA		EA
Reset Existing Headwall - 60" DIA		EA
Adjust Manhole Cover in Pavement (complete, includes removal or modification of old structure top)		EA
Adjust Manhole Cover in soil (complete, includes removal or modification of old structure top)		EA

## Appendix II to Part 200—Contract Provisions for Non-Federal Entity Contracts Under Federal Awards

In addition to other provisions required by the Federal agency or non-Federal entity, all contracts made by the non-Federal entity under the Federal award must contain provisions covering the following, as applicable.

(A) Contracts for more than the simplified acquisition threshold, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

(B) All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be effected and the basis for settlement.

(C) Equal Employment Opportunity. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60–1.3 must include the equal opportunity clause provided under 41 CFR 60–1.4(b), in accordance with Executive Order 11246, “Equal Employment Opportunity” (30 FR 12319, 12935, 3 CFR Part, 1964–1965 Comp., p. 339), as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and implementing regulations at 41 CFR part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”

(D) Davis-Bacon Act, as amended (40 U.S.C. 3141–3148). When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon Act (40 U.S.C. 3141–3144, and 3146–3148) as supplemented by Department of Labor regulations (29 CFR Part 5, “Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction”). In accordance with the statute, contractors must be required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency. The contracts must also include a provision for compliance with the Copeland “Anti-Kickback” Act (40 U.S.C. 3145), as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Building or Public Work Financed in Whole or in Part by Loans or Grants from the United States”). The Act provides that each contractor or subrecipient must be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

(E) Contract Work Hours and Safety Standards Act (40 U.S.C. 3701–3708). Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or

laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

(F) Rights to Inventions Made Under a Contract or Agreement. If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

(G) Clean Air Act (42 U.S.C. 7401–7671q.) and the Federal Water Pollution Control Act (33 U.S.C. 1251–1387), as amended—Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non-Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401–7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251–1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).

(H) Debarment and Suspension (Executive Orders 12549 and 12689)—A contract award (see 2 CFR 180.220) must not be made to parties listed on the governmentwide exclusions in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR part 1986 Comp., p. 189) and 12689 (3 CFR part 1989 Comp., p. 235), “Debarment and Suspension.” SAM Exclusions contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

(I) Byrd Anti-Lobbying Amendment (31 U.S.C. 1352)—Contractors that apply or bid for an award exceeding \$100,000 must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

October 11, 2023

To: City of Tucker  
Attn: Jeff Mueller

Re: Task #7  
1590 Lilburn Road

Furnish materials, equipment, labor, and supervision to perform the following work in accordance with project specifications and plans provided by The City.

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***Project Background***

1590 Lilburn Stone Mountain [1590] is real property owned by the city of Tucker. A sidewalk flume intercepts stormwater runoff in the gutter of Lilburn Stone Mountain Road and deposits it onto the 1590 property. The current ditch has been obstructed with debris and the concentrated flow from the sidewalk flume fans out and seeks different paths to the well-defined channel, and potentially reaches neighboring properties.

The city desires to reestablish the ditch within its 1590 parcel.

***Scope of Work***

1. 1590 Lilburn Stone Mountain Road. Clear debris and reestablish ditch on property -see. accompanying exhibit.

The work required under this contract includes furnishing materials, qualified labor, equipment, traffic control, erosion control, and site restoration.

1. Regrade ditch per GDOT Standard D49. Bottom width of ditch is 48".
2. Move landscape debris as necessary to clear ditch.
3. Remove trash
4. Place rip rap at end of flume for a length of 70 feet along the reestablished ditch in accord with GSWCC Erosion Control Manual Structural Measure St1.
5. Mulch all disturbed areas
6. Clean work area.

***General conditions***

1. The Contractor shall maintain access to residential properties as necessary by detours or covering of the work area when not mobilized.
2. The Contractor shall furnish, install, maintain, and remove all necessary traffic signs, barricades, lights, signals, cones and other traffic control devices, and all flagging and other means of traffic protection and guidance as required by Special Provision 150 of the Georgia Department of Transportation. Such work shall be considered incidental to the overall contract, and no additional compensation will be made.
3. The Contractor will be responsible for calling in and identifying utility locations. The City shall be notified of any potential utility conflicts.
4. Specifications in accord with terms and conditions of RFP2023-016 contract.

***Licensed In:***

Alabama \* Georgia \* Florida \* South Carolina \* North Carolina \* West Virginia

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**Corporate Office:**

2025 US Hwy 41 S. ♦ Perry, Georgia, 31069  
Office: 478-847-2301 ♦ E-Fax: 678-623-0282  
www.uamonline.com

**Metro Atlanta Office:**

1902 Tucker Ind. Rd. ♦ Tucker, Georgia, 30084  
Office: 678-691-1558  
www.uamonline.com

**COST OF WORK:**

City of Tucker 2023 Stormwater System Repair Projects - Task 7						
1590 Lilburn Stone Mountain Road						
		<b>Task #</b>	<b>7</b>			
<b>TUCKER STORM ANNUAL UNIT PRICE SCHEDULE</b>		<b>UAM</b>				
<b>Item</b>	<b>Unit</b>	<b>Unit Price</b>				<b>Notes</b>
<b>General Conditions</b>						
Mobilization	EA	\$ 2,127.50		1	\$ 2,127.50	
Traffic Control Minor 1 – Includes Continuous Crew of 2 Flagmen	Per Day	\$ 2,300.00		3	\$ 6,900.00	
Visual Inspection (Pictures), per Project (During Construction)	EA	\$ 368.00		1	\$ 368.00	
Concrete Drainage Structures Poured In Place w/ Steel	CY	\$ 2,070.00		2	\$ 4,140.00	flume
Haul-Off Soil Material	CY	\$ 74.75		51.852	\$ 3,875.93	
Stone Rip Rap Type III In Place	TON	\$ 89.70		120	\$10,764.00	
Seed & Straw (Permanent Grassing)	SY	\$ 5.29		300	\$ 1,587.00	
Straw Mulch	SY	\$ 4.83		300	\$ 1,449.00	
Removal of Existing Drainage Structure	EA	\$ 2,300.00		1	\$ 2,300.00	
			<b>TOTAL</b>		<b>\$33,511.43</b>	

Sincerely,

Anita Clyne – President  
Utility Asset Management, Inc.

***Licensed In:***

Alabama \* Georgia \* Florida \* South Carolina \* North Carolina \* West Virginia

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**EXHIBIT C**  
**City of Tucker**  
**Additional Contract Terms for Projects Utilizing Federal Funds**  
**TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

**Notice:** The contract or purchase order to which this addendum is attached is made using federal assistance provided to the City of Tucker by the US Department of Treasury under the American Rescue Plan Act (“ARPA”), Sections 602(b) and 603(b) of the Social Security Act, Pub. L. No. 117-2 (March 11, 2021).

The following terms and conditions apply to you, the contractor or vendor, as a contractor of the City of Tucker, according to the City’s Award Terms and Conditions; by ARPA and its implementing regulations; and as established by the Treasury Department.

**I. Federally Required Equal Employment Opportunity**

During the performance of this contract, the contractor agrees as follows:

(1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following:

Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

(2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.

(3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information.

## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

##### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

(4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.

(6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

(7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.

(8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance:

Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor because of such direction by the administering agency, the contractor may request the United States to enter such litigation to protect the interests of the United States.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, That if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

##### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

#### **II. Compliance with the Federal Contract Work Hours and Safety Standards Act.**

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$27 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

(3) Withholding for unpaid wages and liquidated damages. The (write in the name of the Federal agency or the loan or grant recipient) shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any

## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

##### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clause set forth in paragraphs (b)(1) through (4) of this section.

### **III. Federal Clean Air Act Compliance**

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 33 U.S.C. 1251 et. seq.
2. The contractor agrees to report each violation to the City of Tucker and understands and agrees that the City of Tucker will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office.
3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funds.

### **IV. Federal Water Pollution Control Act Compliance**

1. The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
2. The contractor agrees to report each violation to the City of Tucker and understands and agrees that the City of Tucker will, in turn, report each violation as required to assure notification to the appropriate Environmental Protection Agency Regional Office.
3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with federal funds.

### **V. Federal Suspension and Debarment**

- (1) This contract is a covered transaction for the purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935).
- (2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier transaction it enters into.

## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

##### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

(3) This certification is a material representation of fact relied upon by the City of Tucker. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to the City of Tucker, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

(4) The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

#### **VI. Compliance with the Federal Solid Waste Disposal Act**

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—

1. Competitively within a timeframe providing for compliance with the contract performance schedule;

2. Meeting contract performance requirements; or

3. At a reasonable price.

ii. Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, <https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program>.

iii. The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.”

#### **VII. Prohibition on certain telecommunications and video surveillance services or equipment (Huawei and ZTE)**

Contractor is prohibited from obligating or expending federal funds to:

(1) Procure or obtain;

(2) Extend or renew a contract to procure or obtain; or

(3) Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115–232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).

(i) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation,



## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

##### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).

(ii) Telecommunications or video surveillance services provided by such entities or using such equipment.

(iii) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

#### **VIII. Solicitation of Minority and Women-Owned Business Enterprises.**

Contractors or subcontractors are required to take affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

Affirmative steps must include:

(i) Place qualified small and minority businesses and women's business enterprises on its solicitation lists.

(ii) Assure that small and minority businesses and women's business enterprises are solicited whenever they are potential sources.

(iii) Divide total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses and women's business enterprises.

(iv) Establish delivery schedules, where the requirement permits, which encourage participation by small and minority businesses and women's business enterprises.

(v) Use the services and assistance, as appropriate, of the Small Business Administration, the Minority Business Development Agency of the Department of Commerce.

#### **IX. Compliance with the Federal Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended)**

Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such

## **EXHIBIT C**

### **City of Tucker**

#### **Additional Contract Terms for Projects Utilizing Federal Funds**

#### **TASK ORDER 7 DITCH RESTORATION AT 1590 LILBURN STONE MOUNTAIN RD**

disclosures are forwarded from tier to tier up to the recipient who in turn will forward the certification(s) to the awarding agency. If applicable, contractors must sign and submit to the Certification Regarding Lobbying that follows:

#### **APPENDIX A, 44 C.F.R. PART 18 – CERTIFICATION REGARDING LOBBYING**

##### **Certification for Contracts, Grants, Loans, and Cooperative Agreements**

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer\ or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of the fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Contractor, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

Signature of Contractor's Authorized Official

\_\_\_\_\_  
Print Name and Title of Contractor's Authorized Official

\_\_\_\_\_  
Date \_\_\_\_\_

October 11, 2023

To: City of Tucker  
Attn: Jeff Mueller

Re: Task #7  
1590 Lilburn Road

Furnish materials, equipment, labor, and supervision to perform the following work in accordance with project specifications and plans provided by The City.

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***Project Background***

1590 Lilburn Stone Mountain [1590] is real property owned by the city of Tucker. A sidewalk flume intercepts stormwater runoff in the gutter of Lilburn Stone Mountain Road and deposits it onto the 1590 property. The current ditch has been obstructed with debris and the concentrated flow from the sidewalk flume fans out and seeks different paths to the well-defined channel, and potentially reaches neighboring properties.

The city desires to reestablish the ditch within its 1590 parcel.

***Scope of Work***

1. 1590 Lilburn Stone Mountain Road. Clear debris and reestablish ditch on property -see. accompanying exhibit.

The work required under this contract includes furnishing materials, qualified labor, equipment, traffic control, erosion control, and site restoration.

1. Regrade ditch per GDOT Standard D49. Bottom width of ditch is 48".
2. Move landscape debris as necessary to clear ditch.
3. Remove trash
4. Place rip rap at end of flume for a length of 70 feet along the reestablished ditch in accord with GSWCC Erosion Control Manual Structural Measure St1.
5. Mulch all disturbed areas
6. Clean work area.

***General conditions***

1. The Contractor shall maintain access to residential properties as necessary by detours or covering of the work area when not mobilized.
2. The Contractor shall furnish, install, maintain, and remove all necessary traffic signs, barricades, lights, signals, cones and other traffic control devices, and all flagging and other means of traffic protection and guidance as required by Special Provision 150 of the Georgia Department of Transportation. Such work shall be considered incidental to the overall contract, and no additional compensation will be made.
3. The Contractor will be responsible for calling in and identifying utility locations. The City shall be notified of any potential utility conflicts.
4. Specifications in accord with terms and conditions of RFP2023-016 contract.

***Licensed In:***

Alabama \* Georgia \* Florida \* South Carolina \* North Carolina \* West Virginia

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**Corporate Office:**

2025 US Hwy 41 S. ♦ Perry, Georgia, 31069  
Office: 478-847-2301 ♦ E-Fax: 678-623-0282  
www.uamonline.com

**Metro Atlanta Office:**

1902 Tucker Ind. Rd. ♦ Tucker, Georgia, 30084  
Office: 678-691-1558  
www.uamonline.com

**COST OF WORK:**

City of Tucker 2023 Stormwater System Repair Projects - Task 7						
1590 Lilburn Stone Mountain Road						
		Task #	7			
TUCKER STORM ANNUAL UNIT PRICE SCHEDULE		UAM				
Item	Unit	Unit Price				Notes
<b>General Conditions</b>						
Mobilization	EA	\$ 2,127.50		1	\$ 2,127.50	
Traffic Control Minor 1 – Includes Continuous Crew of 2 Flagmen	Per Day	\$ 2,300.00		3	\$ 6,900.00	
Visual Inspection (Pictures), per Project (During Construction)	EA	\$ 368.00		1	\$ 368.00	
Concrete Drainage Structures Poured In Place w/ Steel	CY	\$ 2,070.00		2	\$ 4,140.00	flume
Haul-Off Soil Material	CY	\$ 74.75		51.852	\$ 3,875.93	
Stone Rip Rap Type III In Place	TON	\$ 89.70		120	\$10,764.00	
Seed & Straw (Permanent Grassing)	SY	\$ 5.29		300	\$ 1,587.00	
Straw Mulch	SY	\$ 4.83		300	\$ 1,449.00	
Removal of Existing Drainage Structure	EA	\$ 2,300.00		1	\$ 2,300.00	
			<b>TOTAL</b>		<b>\$33,511.43</b>	

Sincerely,

Anita Clyne – President  
Utility Asset Management, Inc.

***Licensed In:***

Alabama \* Georgia \* Florida \* South Carolina \* North Carolina \* West Virginia

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