



Scott Batterton (absent), Rich Edinger, Babafemi Adesanya, Randy Strunk, Anita Atkinson, Robert Scott, Neil Schaap

GWINNETT COUNTY STORMWATER AUTHORITY OFFICIAL MINUTES

July 21, 2023; 2:00 P.M

I. Open Meeting

- a. Meeting called to order; quorum verified (Edinger)
- b. Approval: July 21, 2023, Meeting Agenda (Edinger)
{Action: Approved; Motion: Scott; Second: Adesanya; Vote: 6-0}
(Scott-Yes; Edinger-Yes; Schaap-Yes; Adesanya-Yes; Strunk-Yes; Atkinson-Yes)
- c. Approval: May 12, 2023, Meeting Minutes (Edinger)
{Action: Approved; Motion: Scott; Second: Strunk; Vote: 6-0}
(Scott-Yes; Edinger-Yes; Schaap-Yes; Adesanya-Yes; Strunk-Yes; Atkinson-Yes)

II. New Business

- a. MS4 Annual Report Recap (Middlebrooks)

Reporting Period: May 1, 2022, thru April 30, 2023; annual report submitted to Georgia EPD: Provided overview of required inspections, maintenance, and monitoring data; no formal approval letter has been received from EPD since 2020 report.

Comments:

Discussion ensued on MS4 program components presented.

County reiterated Gwinnett is in good standing with all permits: drinking water, wastewater, etc.

- b. UDO/GCSMM Revisions (Jones)

Reviewed upcoming UDOs relevant to Stormwater:

Ch 500: Riparian Buffers. Proposed reassigning stream buffer variances from Construction to Zoning Board of Appeals.

Ch 630: Tree Preservation/Replacement Regs. Ongoing updates to both tree and shrub options that are available for use in the county for landscaping; removed required preliminary site visit by county staff).

Ch 700: Floodplain Management. Amended standards for compensatory capacity. New clarification that no structures are allowed in limits of future build-out conditions of floodplain.

Ch 800: Stormwater Management. Added limitations to stormwater management facilities allowed in residential subdivisions.

Future GCSMM updates:

DWR will likely need to update the GCSMM to be consistent with the UDO.

Comments:

Discussion ensued on ordinance edits and questions.

c. 2023 Stormwater Projects Outlook (Jones)

Project Updates:

Active stormwater construction projects were reviewed and their status updated with the group.

Condition Assessment, Rehab/Replacement:

Pipe Condition Assessment: Pipes are inspected every 5 years. To date, 46 miles of pipe have been CCTV'd and 80 miles visually ("head-in-hole") inspected; 1,400 linear feet of pipe have been replaced and 9,500 linear feet pipe have been lined.

Comments:

Discussion ensued on project updates.

d. Stormwater Pipe Material Requests (Gurd)

DWR has received pipe material requests from several vendors; internal discussions are ongoing to include considering other materials.

Comments:

Discussion ensued on material types, supply chain issues, and variances.

III. Old Business

None

IV. Updates

a. ARPA Dams Projects update (Middlebrooks)

Presented proposed sites for funding and current status. ARPA funds must be obligated by end of 2024 and expended by end of 2026.

V. Audience Comments

Cecil O'Connor, Concrete Pipe Association: pipe standards; GDOT

VI. Adjourn

{Action: Approved; Motion: Scott; Second: Shrunk; Vote: 6-0}
{Scott-Yes; Edinger-Yes; Schaap-Yes; Adesanya-Yes; Strunk-Yes; Atkinson-Yes}

Welcome
to the July 21, 2023
Gwinnett County
Stormwater Authority
meeting

Please mute your
phone unless
speaking



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Stormwater
Authority Meeting

Friday, July 21, 2023



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Agenda

- MS4 Annual Report Recap
- UDO/GCSMM Revisions
- 2023 Stormwater Projects Outlook
- Stormwater Pipe Material Requests
- Update: ARPA Dams Projects

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MS4 Annual Report

Kevin Middlebrooks
Section Manager



Large Municipal Separate Storm Sewer System (MS4) Annual Report

General Information

- A. Name of Permittee: Gwinnett County
- B. Mailing Address: 684 Winder Hwy, Lawrenceville, GA 30045
- C. Contact Person: Caitlan O'Keeffe Title: Water Quality Manager
- D. E-Mail Address: Caitlan.O'Keeffe@GwinnettCounty.com
- E. Telephone Number: 678-376-6907
- F. Reporting Period (May 1, 2022 through April 30, 2023)
- G. List any other party or parties (e.g. Keep America Beautiful affiliates) responsible for implementing the Storm Water Management Program (SWMP) or a program component during this reporting period. If not previously submitted, provide a Memorandum of Agreement: Gwinnett Clean & Beautiful.
- H. Certification Statement:

I certify under penalty of law that this document and all attachments were prepared with direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

12/1/23

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MS4 Annual Report: Inspections

- 12,631 Catch Basins
- 312 miles of Pipe
- 40 miles of Ditches
- 75 Detention Ponds
- 127 Outfalls (Dry Weather Screening)
- 23 Industrial Facilities
- 165 HVPS Facilities
- 18 Municipal Facilities
- 5,101 Construction Sites



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MS4 Annual Report: Maintenance

- 2,305 miles of Street Sweeping
- 82 Catch Basins
- 9.7 miles of Ditches
- 6 Detention/Retention Ponds
- 2 miles of Storm Drain Lines



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MS4 Annual Report: Monitoring

- Sample over 40 water bodies
- Over a dozen parameters sampled
- Approximately 1,000 sample events per year
- 127 Illicit Discharge & Illegal Connection Work Orders completed



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Questions?



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UDO/GCSMM Updates

Rachel Jones, SW Portfolio Manager



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UDO Updates

Chapter 500. Riparian Buffers

Reassigned stream buffer variances from the Board of Construction Adjustments and Appeals to the Zoning Board of Appeals to increase public involvement. Aligned public notice procedures with other variance types.

Chapter 630. Tree Preservation and Replacement Regulations

Added additional requirements for tree canopy calculations. Updated references to current tree species list, newly created shrub species list, and prohibited plant species list. Removed the requirement for preliminary site visits by county staff related to specimen tree surveys since these surveys are created by a licensed professional.



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UDO Updates

Chapter 700. Floodplain Management

Restructured chapter to be more user-friendly. Added additional requirements for floodproofing certification. Amended standards for the compensation for storage capacity, verification of no-rise conditions, changes to the base flood elevation, and development in the floodplain. Added requirement that no structures shall be allowed in the limits of the future condition floodplain. Added standards for manufactured homes, elevating structures in the floodplain, and building standards for areas of shallow flooding.



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UDO Updates

Chapter 800. Stormwater Management

Added requirements for impacts on downstream properties. Added limitations to the types of stormwater management facilities allowed in residential subdivisions.

800-60.8 In a residential subdivision, the following stormwater management facilities are not permitted:

1. Oil-Grit Separator
2. Organic Filter
3. Proprietary Devices
4. Sand Filters
5. Underground Detention
6. Or any additional BMP's deemed unacceptable by Planning & Development.



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Future GCSMM Updates

- UDO driven
 - BMP easements and access easements
 - BMPs appropriate for residential use
 - Gwinnett County Stream Buffer Mitigation Bank Guidance
 - Tree List (future)
- As-built review driven
 - Permanent pool drain on walled ponds



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Future GCSMM Updates

- General issues
 - "Guidance" and "suggestion" language
 - Should vs shall
 - Minor cleanup



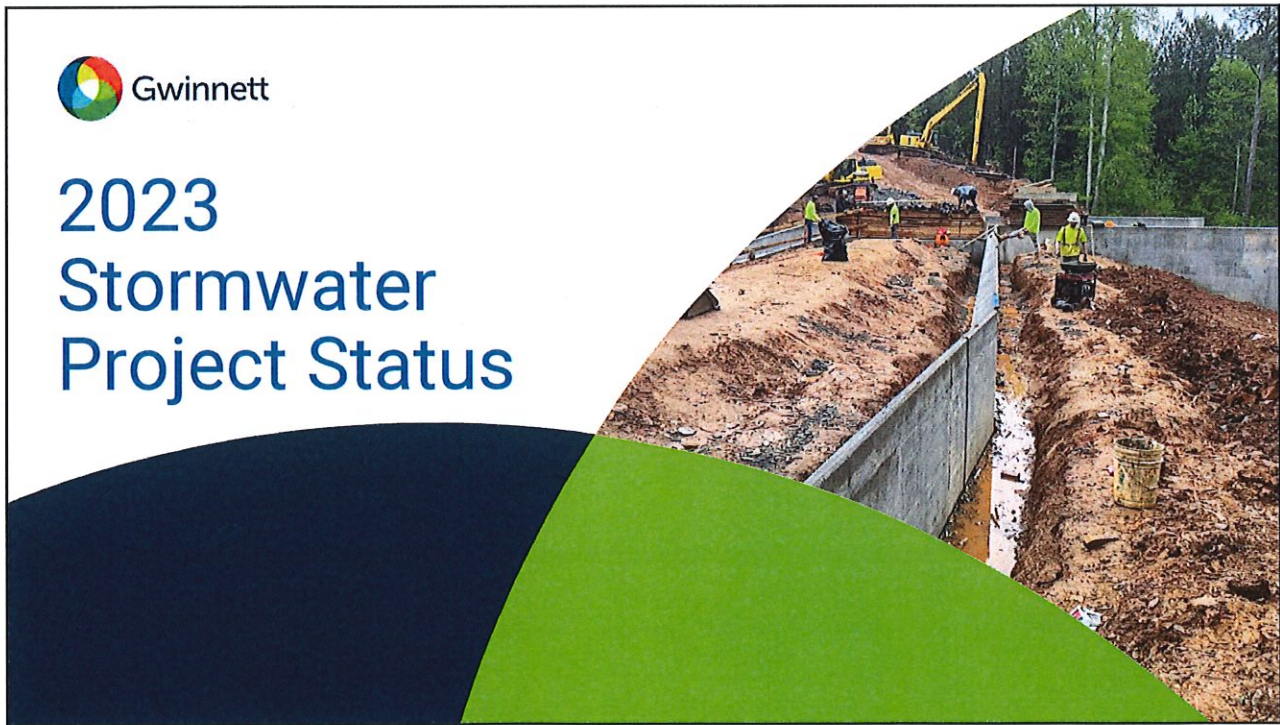
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Questions?



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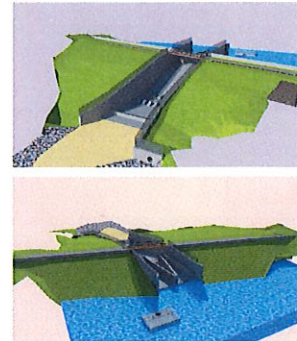
2023
Stormwater
Project Status



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2023 Stormwater Projects

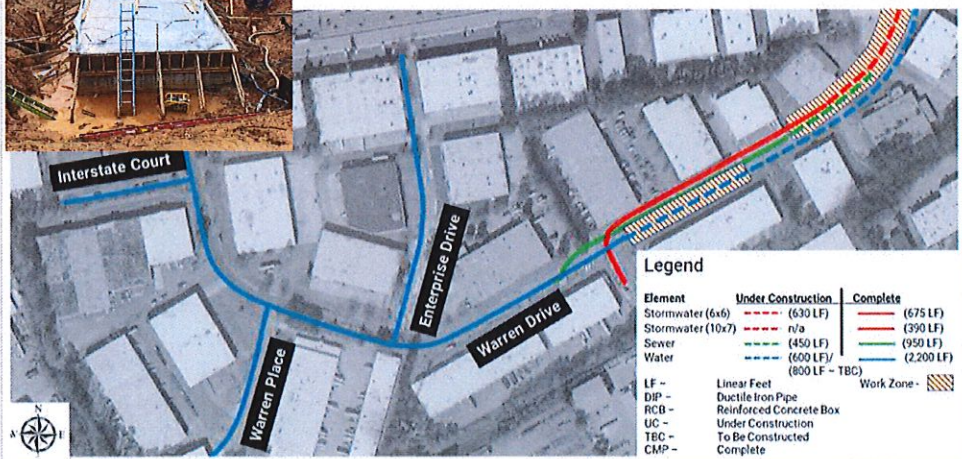
Lake Louella Construction (Substantial Completion Achieved June 2023)



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2023 Stormwater Projects

Warren Drive (Completion anticipated December 2023)



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2023 Projects Beaver Ruin Wetland Park



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2023 Stormwater Projects Stormwater Condition Assessment, Replacement and Rehabilitation

- Pipe Condition Assessment Completed to Date:
 - 46 miles lamped
 - 80 miles visually inspected
- Pipe Replacement Completed to Date: 1,400 linear feet
- Pipe Lining Completed to Date: 9,500 linear feet



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Questions?



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SW Pipe Material Requests

Kat Gurd, Division Director



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SW Pipe Material Requests

- ADS – HP Storm Pipe
 - High Performance Polypropylene
- Contech Duromaxx
 - Steel Reinforced Polyethylene Pipe
- Concrete Pipe Association



Gwinnett County Storm Sewer Pipe Standards

- Approved in 2018
- Based on GDOT Standards at the time
- DWR does not currently consider variances for pipe material.

Table 1 Pipe Materials

| Pipe Type | Reinforced Concrete Pipe | | Metal Pipe | | Elastic Pipe | |
|-----------------------------------|--------------------------|-----------------------------------|------------------------------------|------------------------------------|-------------------------|--|
| | Reinforced Concrete Pipe | Aluminized Type 2 Steel | Polymer Process Steel | Aluminum Alloy | Corrugated Polyethylene | Smoothed Lined High Density Polyethylene Type 78 |
| Specifications (See Note 1) | ASTM C76, AASHTO M170 | ASTM A760, A929, AASHTO M36, M274 | ASTM A742, A762, AASHTO M245, M246 | ASTM B144, B145, AASHTO M196, M197 | AASHTO M252 | ASTM F2306, AASHTO M294 |
| Minimum Thickness / Class | | 14 Ga | 14 Ga | 14 Ga | AASHTO M252 | AASHTO M294 |
| Installation Type | | | | | | |
| Longitudinal | X | X | X | X | | X |
| Public Road ADT < 5000 | | | | | | |
| Cross Drain < 10% Slope | X | X | X | X | | X |
| Cross Drain > 10% Slope | | | X | | | X |
| Public Road ADT ≥ 5000 | | | | | | |
| Cross Drain < 10% Slope | X | | | | | X (See Note 2) |
| Cross Drain > 10% Slope | | | X | | | X (See note 2) |
| Lateral Systems | X | X | X | X | | X |
| Slope Drain | | X | X | X | | X |
| Perforated Underdrain | | X | X | X | X | X |
| Dams | X | | | | | |
| Perennial Streams | X | | | | | |
| Minimum Allowable Design Velocity | 2.5 fps | 2.5 fps | 2.5 fps | 2.5 fps | - | 2.5 fps |
| Maximum Allowable Design Velocity | 15 fps | 15 fps | 15 fps | 15 fps | - | 15 fps |

Notes:
 1) All pipe materials shall meet the minimum requirements of the Georgia Department of Transportation's Standard Specifications for Construction of Transportation Systems, most current edition.
 2) HDPE not allowed on roads with ADT ≥ 15,000.



GDOT Pipe Selection Guidelines

Table 7.3—Selection Guideline for Culvert, Slope, and Underdrain Pipe

| PIPE TYPE | INSTALLATION TYPE | | | | | | | | SIDE DRAIN | PERMANENT SLOPE DRAIN | REGENERATED UNDERDRAIN |
|---|---|--------------------|----------------------------|-----|-------------|--------------------------------------|----------------|-----|------------|-----------------------|------------------------|
| | STORM DRAIN | | | | | | | | | | |
| | TRAVEL BEARING (Inside Roadbed) | | | | | NON-TRAVEL BEARING (Outside Roadbed) | | | | | |
| | GRADE ≤ 10% | | | | Grade > 10% | Interstate | Non-Interstate | | | | |
| ADT < 1500 | ADT ≥ 1500 < 5000 | ADT ≥ 5000 < 15000 | ADT ≥ 15,000 & Interstates | | | | | | | | |
| Concrete Pipes Section 843 | | | | | | | | | | | |
| Reinforced Concrete AASHTO M 170 | YES | YES | YES | YES | NO | YES | YES | YES | NO | NO | |
| Steel Pipes Section 834 | See Table 1 below for Site Condition Restrictions | | | | | | | | | | |
| Corrugated Steel Aluminum Coated (Type 2) AASHTO M 26 | YES | YES | NO | NO | NO | NO | YES | YES | YES | YES | |
| Corrugated Steel Plain Zinc Coated AASHTO M 28 | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | |
| Polymer Coated Steel AASHTO M 245 | YES | YES | NO | NO | YES | NO | YES | YES | YES | NO | |
| Aluminum Alloy Pipes Section 840 | See Table 1 below for Site Condition Restrictions | | | | | | | | | | |
| Corrugated Aluminum AASHTO M 199 | YES | YES | NO | NO | NO | NO | YES | YES | YES | YES | |
| Thermoplastic Pipes Section 845 | | | | | | | | | | | |
| Corrugated HDPE AASHTO M 252 | NO | NO | NO | NO | NO | NO | NO | NO | NO | YES | |
| Corrugated Smooth Lined HDPE AASHTO M 294 Type "S" | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| Corrugated Smooth Lined Polypropylene AASHTO M 330 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| PVC Corrugated Smooth Interior ASTM F 840 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| PVC Profile Wall AASHTO M 364 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |



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|---|---|--------------------|----------------------------|-----|-------------|--------------------------------------|----------------|-----|------------|-----------------------|------------------------|
| | STORM DRAIN | | | | | | | | | | |
| | TRAVEL BEARING (Inside Roadbed) | | | | | NON-TRAVEL BEARING (Outside Roadbed) | | | | | |
| | GRADE ≤ 10% | | | | Grade > 10% | Interstate | Non-Interstate | | | | |
| ADT < 1500 | ADT ≥ 1500 < 5000 | ADT ≥ 5000 < 15000 | ADT ≥ 15,000 & Interstates | | | | | | | | |
| Concrete Pipes Section 843 | | | | | | | | | | | |
| Reinforced Concrete AASHTO M 170 | YES | YES | YES | YES | NO | YES | YES | YES | NO | NO | |
| Steel Pipes Section 834 | See Table 1 below for Site Condition Restrictions | | | | | | | | | | |
| Corrugated Steel Aluminum Coated (Type 2) AASHTO M 26 | YES | YES | NO | NO | NO | NO | YES | YES | YES | YES | |
| Corrugated Steel Plain Zinc Coated AASHTO M 28 | NO | NO | NO | NO | NO | NO | NO | YES | YES | YES | |
| Polymer Coated Steel AASHTO M 245 | YES | YES | NO | NO | YES | NO | YES | YES | YES | NO | |
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| Corrugated Aluminum AASHTO M 199 | YES | YES | NO | NO | NO | NO | YES | YES | YES | YES | |
| Thermoplastic Pipes Section 845 | | | | | | | | | | | |
| Corrugated HDPE AASHTO M 252 | NO | NO | NO | NO | NO | NO | NO | NO | NO | YES | |
| Corrugated Smooth Lined HDPE AASHTO M 294 Type "S" | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| Corrugated Smooth Lined Polypropylene AASHTO M 330 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| PVC Corrugated Smooth Interior ASTM F 840 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |
| PVC Profile Wall AASHTO M 364 | YES | YES | YES | NO | YES | NO | YES | YES | YES | YES | |






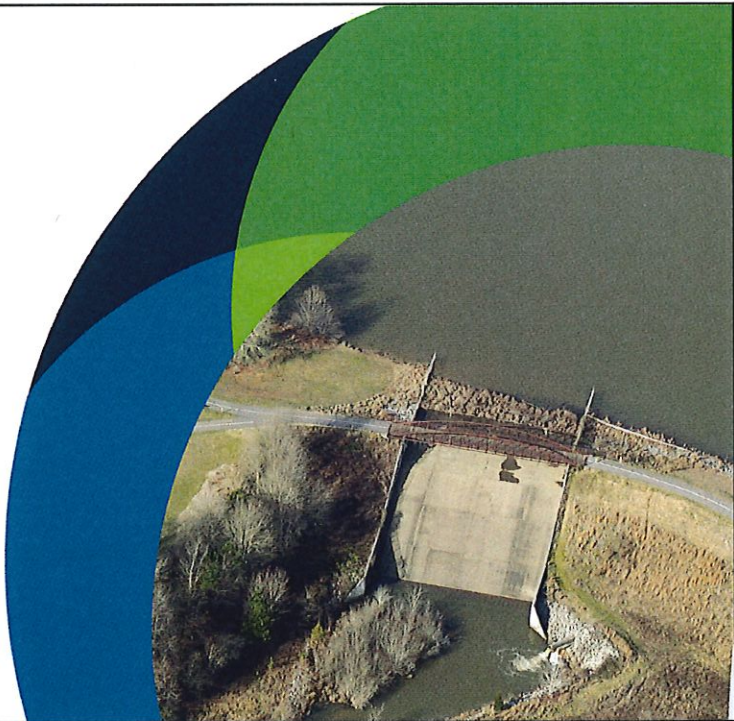
Questions?



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Update: ARPA Dams Projects

Kevin Middlebrooks
Section Manager

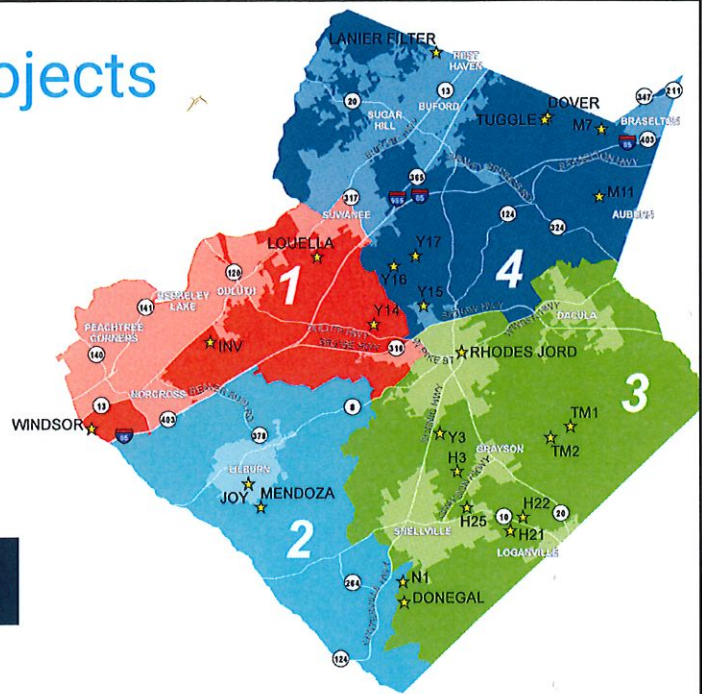


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Proposed Dam Projects

1. NRCS Y-15 Dam Outlet Control Structure Replacement & Pipe Lining
2. Rhodes Jordan Park Lake Dam Rehabilitation
3. Combined NRCS Dams (10) - Outlet Works Rehabilitation
4. Tribble Mill Park Dam No.2 Rehabilitation (NRCS TM-2)
5. NRCS Y-14 Riser Rehabilitation & Spillway Resurfacing

Funds must be obligated by the end of 2024 and expended by the end of 2026.



Summary of Dams Project Drivers – Regulatory Compliance

- NRCS Y-15 Dam OCS Replacement & Lining



- Rhodes Jordan Park Lake Dam Rehabilitation

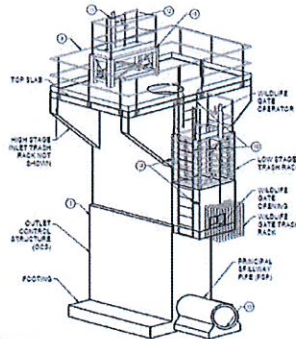


Summary of Dams Project Drivers – Major Maintenance Needs

- Tribble Mill Park Dam No.2 Rehabilitation (NRCS TM-2)



- Combined NRCS Dams (10) - Outlet Works Rehabilitation



- NRCS Y-14 Riser Rehabilitation & Spillway Resurfacing



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Project Status

| Project | Construction Schedule | Cost Estimate | Status |
|---|-----------------------|--------------------|---|
| NRCS Y-15 Outlet Control Structure Replacement | 6 to 8 months | \$1,970,000 | BoC date 7/18 |
| Combined NRCS Dams (10) - Outlet Works Rehabilitation | 10 to 12 months | \$5,000,000 | Bids to be received 7/25 |
| NRCS Y-14 Riser Rehabilitation & Spillway Resurfacing | 6 to 8 months | \$1,000,000 | RCC Spillway Resurfacing Design to begin late July 2023 |
| Rhodes Jordan Dam Rehabilitation | 3 to 8 months | \$500,000 | Project Scoping Report |
| Tribble Mill Park Dam No.2 Rehabilitation (NRCS TM-2) | 6 to 8 months | \$1,500,000 | Project Scoping Report |
| TOTAL | | \$9,970,000 | |



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