NONPOINT SOURCE PROGRAM ANNUAL REPORT

FFY2022

GEORGIA
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION

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Cover Photo Credit: Limestone Valley RC&D, FY17 319(h) Project - *Implementing the Holly Creek Watershed Management Plan - Phase 2*

Dear Stakeholders:

The Georgia Environmental Protection Division (GAEPD) is proud to offer this annual report on the activities of Georgia's Nonpoint Source Program during federal fiscal year 2022. Financial support from the U.S. Environmental Protection Agency (USEPA) through the Section 319(h) Nonpoint Source Implementation Grant allows us to work collaboratively with many state agency partners, including the Georgia Forestry Commission, the Georgia Soil and Water Conservation Commission, and the Coastal Resources Division to address nonpoint source pollution challenges across the state.

Georgia's diverse watersheds – from the steep slopes of the Blue Ridge Mountains to the sandy plains and marshes of the Atlantic coast – continue to be impacted by human activities and climate change. *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* is designed to help minimize impacts from changes in land use and ongoing economic development activities though the implementation of best management practices (BMPs) and restoration activities. GAEPD and our state and local partners are committed to implementing BMPs and other activities to reach our statewide goals outlined in the *Plan*.

Working cooperatively maximizes financial and human resources to protect our rivers, lakes, shorelines, and streams. This report highlights some of the ways collaborative projects resulted in greater public knowledge of water resources issues, refined designs for structural BMPs, and improved water quality. We look forward to working with both experienced and new partners as our work continues in the future.

Sincerely,

Veronica Craw
Nonpoint Source Program Manager
Georgia Environmental Protection Division

Georgia's Nonpoint Source Program

Georgia's Nonpoint Source Program is guided by *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)*. Many partners work collaboratively to implement the *Plan*, and in FFY2022, the following organizations led efforts in their respective areas of expertise to reduce nonpoint source pollution and protect our rivers, lakes, and streams.

Silviculture

Georgia Forestry Commission

The Georgia Forestry Commission (GFC) encourages and monitors voluntary implementation of forestry Best Management Practices (BMPs) statewide and compiles a Silvicultural BMP Implementation and Compliance Survey every other year. The survey reports on progress towards Silviculture Long Term Goal 6 of the Plan to achieve a minimum of 90% compliance for all recommended silviculture BMPs through 2030. In FFY2022, the GFC completed the statewide 2021 BMP Survey available on the GFC website https://gatrees.org . The 2021 BMP Survey resulted in an overall implementation score of 92.58%.

Figure 1: Example of forestry portable steel logging bridge for keeping equipment out of streams.

The statewide 2021 BMP Survey evaluated 50,420.69 acres of forestry operations at 260 eligible sites (8 Mountain, 14 Ridge & Valley, 70 Piedmont, 49 Upper Coastal Plain, 119 Lower Coastal Plain) consisting of 156 on non-industrial private forest land (NIPF), 79 on forest industry/corporate land, and 25 on public land. Statewide, 92.58% of the 9,475 individual BMPs evaluated were implemented correctly, a decrease of 1.82% from the 2019 BMP Survey. In addition, 95.07% correct BMP implementation on corporate lands, 97.11% on public lands, and 90.44% on NIPF lands showed a decrease of 1.23% on corporate land, 2.38% on NIPF and 0.87% on public lands. The number of Water Quality Risks increased from 34 to 58, for a negative change of 70.58%, with the average risk ratio per site calculated at 0.22. Of the 109.91 stream miles evaluated, 103.21 miles (93.90%) had no impacts or impairments from forestry practices, representing a decrease of 3.02% over the previous survey. Evaluations of 254.07 road miles showed 245.07 miles (96.46%) to have no impacts or impairments from forestry practices, a 0.62% improvement in score from 2019. The evaluation of 161 stream crossings on 81 sites showed a BMP implementation rate of 85.53%, a decrease of 5.15% from the 2019 BMP Survey.

During the FFY2022 reporting period, GFC conducted statewide BMP Assurance Monitoring of active or recently active forestry operations in response to both complaints and requests. In addition, a total

of 66 BMP Assurance Exams were completed, the results were documented, and the GFC advised and mediated any necessary corrections. The GFC also provided education, technical advice, training, and consultation on forestry BMPs. Due to the COVID-19 pandemic, the GFC conducted many workshops and trainings through web-based formats. Online presentations will continue to support the GFC's forestry water quality and BMP education programs as outreach activities transition back to more in-person events.

Training Highlights	Technical Assistance
28 in-person events where over **396** copies of BMP brochures distributed **3** in-person Master Timber Harvester (MTH) workshops **29** in-person Continuing Logger Education (CLE) and other BMP trainings **5,601** loggers, timber buyers, foresters, forestry contractors, and landowners attended online CLE and MTH trainings in partnership with the Sustainable Forestry Initiative Implementation Committee	**17** unique complaints requiring a total of **29** complaint site visits/inspections **32** unique/requests requiring a total of **41** request site visits/inspections **14** BMP Demonstrations for **165** participants **77** primary specific forestry BMP Advice Visits **152** Stewardship Plans on forest management, soil/water conservation, and forestry BMPs covering **46,201** acres **257** GFC Firebreak BMP Inspections **50** Logger Conferences

Agriculture

Georgia Soil & Water Conservation Commission

The Georgia Soil and Water Conservation Commission (GSWCC) is committed to providing education and financial incentives that reduce nonpoint agricultural contributions of nutrients, sediment, and pathogens into Georgia's waterways.

During FFY2022, GAEPD and GSWCC partnered on a new FFY2020 Section 319(h) Grant that will expand available resources to Georgia's food and fiber producers with two new sector-specific best management practice (BMP) manuals, a new 9-element watershed based plan, and cost share funding for producers to implement water quality conservation based BMPs. The watershed based plan will be an update to the Hard Labor Creek Watershed Management Plan covering 104,718 acres. This plan will provide baseline samples of identified water quality impairments, recommend BMPs to stakeholders, and outline a schedule of actions that reduce pollutant loads that allow streams to meet their designated uses.

Also in FFY2022 GSWCC initiated the process to create beef and poultry specific editions of the Best Management Practices for Georgia Agriculture Manual. These new editions will tailor common water quality BMPs seen in these commodity spaces directly to technical and financial resources. These

available resources lay the best foundation for interested producers to successfully incorporate impactful BMPs into their operations.

Other active GSWCC projects during FFY2022 include:

- FY2019 - Implementing the WMPs for Big Indian Creek and Rooty Creek Watersheds
- FY2018 - Implementing the WMP for Coosawattee River-Carter's Lake Watershed
- FY2018 - Implementing the WMP for Chickasawhatchee Creek Watershed
  FY2018 - Creating and Implementing Watershed Management Plans for North Fork and Middle Fork Broad River and Wahoo Creek-Little River

Developing an Agriculture Action Strategy for Georgia

In FFY2021, USEPA contracted Tetra Tech via a Task Order to assist Georgia with developing an Agriculture Action Strategy. The vision for the project was to engage new stakeholders in the agriculture goals of Georgia's *Statewide Nonpoint Source Management Plan*. Throughout FFY2022, the project team supported the following tasks:

- Collected and summarized data, studies, and other information related to agriculture and water quality throughout the state.
- Convened focus groups composed of producer organizations, conservation groups, researchers, universities, etc. to provide input on water quality impacts from agriculture, current BMPs being used by producers, possible barriers to additional BMP adoption, and solutions to address such barriers.
- Supported the formation of an Agricultural Nonpoint Source Working Group (AWG) to develop and prioritize proposed actions to overcome barriers to BMP adoption and establish responsibilities and schedules for BMP implementation.
- Developed a set of GIS maps and data to help visualize connections between agricultural activities and water quality throughout the state.

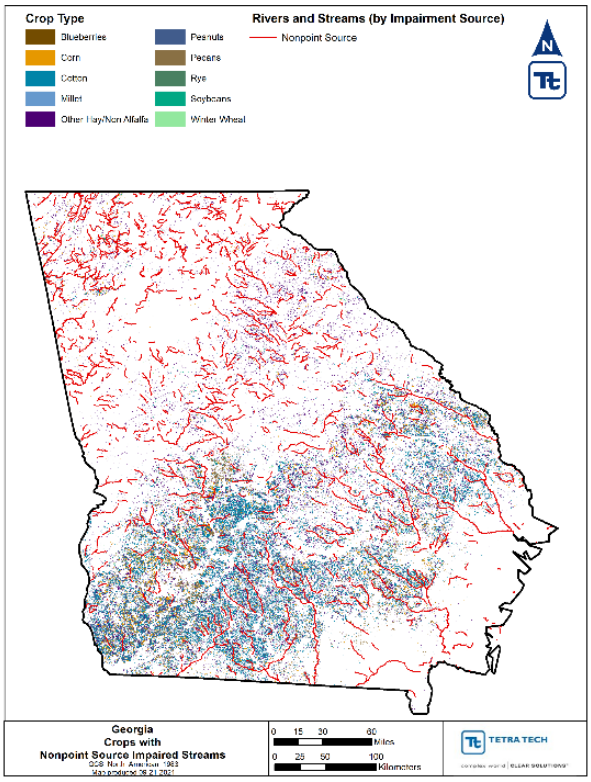

Figure 2: Agricultural activities by crop type with 303(d) Impaired Waters used by Agricultural Nonpoint Source Working Group (AWG).

GAEPD aims to continue the work of this project through partnerships with the Georgia Soil and Water Conservation Commission, Georgia Association of Conservation Districts, and other partners that participated in the AWG meetings.

Natural Resources Conservation Service (NRCS)

The NRCS leveraged an existing National Water Quality Initiative (NWQI) partnership with GAEPD to establish a procedure for implementing the Source Water Protection provisions of the 2018 Farm Bill.

Actions mandated to complete further refinement of selected areas by September 30, 2021, included refining local priority areas in each State for drinking water protection; providing increased incentives for practices that relate to drinking water quality and quantity, while also benefitting producers; and dedicating at least 10 percent of available conservation funds to source water protection. Local priority areas have been selected in Georgia but not finalized.

During the FFY2022 reporting period, the GAEPD Source Water Assessment Team (SWAT) staff attended two meetings with NRCS including one with the new NRCS coordinator regarding ongoing activities and an overview of current partners projects. Going forward, NRCS plans to have 2 to 3 meetings a year coordinate with state partners and help the focus for NRCS agricultural conservation funding going forward.

Urban - Onsite Sewage Disposal Systems

Georgia Department of Public Health

The Georgia Department of Public Health (DPH), through County Boards of Health (CBH), oversees decentralized systems treating less than 10,000 gpd and discharging into an absorption field, and promotes maintenance among private septic system owners in accordance with the *Manual for On-Site Sewage Management Systems*. The DPH works to minimize health problems related to untreated human sewage, regulate and inspect new on-site sewage management systems (septic tanks/field lines), investigate and evaluate repairs made to improperly functioning on-site sewage management systems, and educate, train, and certify individuals involved in installing, maintaining, and repairing on-site sewage management systems.

During FFY2022, CBH and Section 319(h) grantees partnered on septic system remediation projects in eleven watersheds. These projects aimed to reduce bacterial impacts on waterways through septic repair and replacement programs.

Section 319(h) Grant Projects Addressing Impacts from Onsite Sewage Disposal Systems

- FY2021 - South Chickamauga Headwaters WPM Implementation Project - Phase 3
- FY2020 - Warwoman Creek WMP Implementation Project
- FY2020 - Lookout Creek Watershed Management Plan Implementation Project-Phase 2
- FY2019 - Implementation of the Seventeen Mile River Watershed Management Plan
- FY2019 - Septic System and Water Quality Improvements of Horsepen Creek Watershed
- FY2019 - Implementing the 2019 Salacoa Creek Watershed Plan (HUC #0315010207)
- FY2018 - Lynn Creek TMDL Implementation Project
- FY2017 - Stekoa Creek WMP Implementation Project
- FY2017 - Reduction of Fecal Pollution in Little River - Phase 2
- FY2017 - Septic System Remediation and WQ Improvement for Horsepen Creek
- FY2016 - Implementing the New River Watershed Improvement Plan (HUC #031102030201)
- FY2016 - Implementing the Holly Creek Watershed Management Plan (HUC #0315010104)

Funding Septic Improvements

GAEPD participates in the Georgia Funders' Forum – a collaboration of state and federal agencies working in Georgia to fund water-related projects. In response to demand from the public and from local governments, the Funders' Forum publishes and continually updates a table of funding opportunities specifically for on-site wastewater systems. This table outlines resources for homeowners and local governments to repair or replace failing septic tanks or connect homes to newly extended sewer lines. Information is available online at: https://www.ibenvironmental.com/georgia-funders-forum

Coastal

Georgia Department of Natural Resources - Coastal Resources Division

During FFY2022, GAEPD and Georgia Department of Natural Resources Coastal Resources Division (GADNR CRD) began developing a scope of work to update the 2009 Coastal Stormwater Supplement (CSS) to the Georgia Stormwater Management Manual (GSMM) using FFY2022 Section 319(h) grant funds. The proposed project will update best management practice designs to enhance and promote Green Infrastructure/Low Impact Development (GI/LID) performance in coastal environments. The relevant sections of the CSS will align GI/LID stormwater practices with current research, newly recognized standards, and goals in the present 2016 GSMM. The updated CSS will include recommendations for practitioners on how to consider future climate conditions when designing GI/LID and other stormwater controls and treatments.

Figure 3: UGA Marine Extension installing a monitoring well downstream of GI/LID BMP on Jekyll Island.

GADNR CRD partnered with the City of Brunswick on a new Section 319(h) grant contract executed in November 2021. The project, entitled GI/LID Retrofits in Brunswick - From Planning to Implementation, will leverage the city's 2020-2021 Rethinking Runoff Plan and install GI/LID stormwater retrofits in critical target areas of the Turtle River and Brunswick River watersheds.

GADNR CRD staff continued to partner with the UGA Marine Extension & Georgia Sea Grant (MarEx GSG), to provide technical expertise in support of the FFY2017 Coastal Green Infrastructure/Low Impact Development BMP Implementation Project on the design and installation of an enhanced wet swale to control stormwater runoff from a Public Safety Complex construction site on Jekyll Island.

GADNR CRD staff also partnered and provided technical GI/LID expertise for the following 319(h) grant projects that closed in FFY2022:

- FY2018 Green Infrastructure/Low Impact Development BMPs Implementation in the Vernon River Watershed with City of Savannah

- FY2018 Phase II - Monitoring Infiltration Rates of Coastal Low Impact Development (LID) Practices and Implementing the Coastal Georgia Rain Garden Program with UGA MarEx GSG.
- FY2019 Phase II - Coastal Green Infrastructure/Low Impact Development Stormwater Best Management Practices Implementation with UGA MarEX GSG.
- FY2017 Phase 1 of Coastal Urban Stormwater BMP Retrofits using GI/LID & FY2018 Phase 2 of Coastal Urban Stormwater BMP Retrofits using GI/LID (Osborne Street) both with City of St. Marys.
    - City of St. Marys projects included permeable pavement and bioretention systems, a stormwater utility ordinance with an option for property owners to receive credits by installing GI/LID practices, and monitoring of GI/LID retrofits, and resulted in a FFY2022 Type 2 Success Story (see Success Story section).

Figure 4: Cistern installed at Jacob G. Smith Elementary School as part of several BMPs through the project FY18 GI/LID BMP Implementation in the Vernon River Watershed, City of Savannah.

Outcomes of other closed projects include installation of GI/LID BMPs including 2,500-gallon cistern and 34, 50-gallon rain barrels, several rain gardens in Glynn County, a bioretention system in Camden County, and permeable pavement in Chatham County. Other resource outcomes include, a rainwater harvesting outreach program and educational signage/artwork at each project site. Another resource includes the implementation of the Coastal Georgia Rain Garden Program that developed an online training workshop and a 55-page guide specific to coastal Georgia on how to design, install, and maintain a rain garden. Some projects included monitoring data that established a record of hydrologic performance and effectiveness from bio-infiltration systems which will be used for improved design, better maintenance, and increased understanding of the functionality of these GI/LID practices in a coastal environment.

Land Acquisition and Green Space

Georgia Environmental Finance Authority

During FFY2022, GAEPD continued to assist the Georgia Land Conservation Program (GLCP) administered by the Georgia Environmental Finance Authority (GEFA) to identify high-value conservation lands - particularly those lands that, if put into conservation, would have the greatest impact on mitigating nonpoint source pollution and protecting source waters.

This fiscal year GAEPD reviewed one application and found the proposed project would support the Land Acquisition and Green Space Long-Term Goals and Strategic Plan of *Georgia's Statewide Nonpoint Source Management Plan.* The *Hells Hollow Tract* acquisitions will protect 154.55 acres in the Tennessee River Basin – Fightingtown Creek (HUC 060200030206). The land will connect to the 749,689-acre Chattahoochee National Forest.

Figure 5: Photo Credit: View of Patterson Creek from Phase I Environmental Site Assessment Report "Hells Hollow Tract" Located in Fannin County, Georgia, Prepared for The Nature Conservancy and U.S. Forest Service by Environmental Technology Resources, Inc.

GADNR Outdoor Stewardship Program

The Georgia Department of Natural Resources (GADNR) oversees the Georgia Outdoor Stewardship Program (GOSP), and funds projects consistent with the state's conservation goals through the newly created Conserve Georgia Grant. Funds come from a dedicated 40% of an existing state sales tax on outdoor sporting goods and are distributed as grants or loans awarded to proposals approved by GADNR for the acquisition or stewardship of conservation lands.

The 2021-2022 cycle will commit $28.1 million in state funding to support local parks and trails systems and state-owned lands. Grantees have also committed an estimated $20.5 million to match grant dollars. Of the 15 selected projects, eight are for local governments or nonprofit organizations for the acquisition, development or stewardship of local parks or trail systems. Two proposals are for the acquisition of conservation land by GADNR, and five are for stewardship projects on state lands. The Woodall Creek Conservation Corridor, Butlers Bridge Park & Stream Restoration, and Williamson Park (Champney) Public Access Facility projects are expected to provide stormwater and other nonpoint source management benefits in addition to land conservation.

Section 319(h) Nonpoint Source Implementation Grant

Since 1990, Congress has annually appropriated grant funds to states under Section 319 of the Clean Water Act to implement their approved Nonpoint Source Management Program. GAEPD uses these grant funds to administer its Nonpoint Source Program (NPSP), implement goals of *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019),* and make awards available to public agencies in Georgia. Since 2012, Georgia has received approximately $3.6 million each year to address nonpoint source pollution. Local governments, project partners, and citizens have annually contributed a minimum of 40 percent of total project costs in matching funds or in-kind services to these efforts.

FFY2022 Program Funds

GAEPD applies fifty percent of its Section 319(h) grant funds to resources and programmatic efforts for staff to successfully carry out the milestones and goals of the state's *Plan*.

Grants Unit: Administering Section 319(h) Grants

During FFY2022, GAEPD administered **65** Section 319(h) grant-funded projects, totaling more than **$17.5 million** in federal funds and **$11.8 million** in matching funds or in-kind services. The Grants Unit is responsible for the management of Section 319 Grants, certain state-funded grants, and other administrative functions such as:

- Partnering with other state agencies that manage agricultural, forestry, coastal, and urban programs addressing nonpoint source pollution
- Developing work plans, contracts, and inter-agency agreements
- Providing assistance to applicants developing competitive grant application work plans
- Reviewing and ranking final application work plans for competitive grant funds
- Advising selected sub-grantees on incorporating staff comments into work plans
- Tracking and accounting for expenditures and match contributions of grant awards
- Assisting financial personnel with reconciliation of any cost discrepancies that may occur through the invoicing process
- Submitting reports (work plans, progress, annual, and final reports), project budgets, invoices, and watershed information through the USEPA GRTS database

Outreach Unit: Educating Georgians on Nonpoint Source Pollution

GAEPD uses Section 319(h) Grant program funds to implement education activities to all age levels on the causes and impacts of nonpoint source pollution. GAEPD reaches a statewide audience through a variety of programs and media: from classroom curricula, to waterway cleanup activities, to a robust online presence. Each program serves its targeted stakeholders, and all programs work collaboratively to meet the needs of Georgia residents.

Project WET is an interdisciplinary, hands-on, water science curriculum that can be integrated into existing academic programming. The platform provides water education through published curricula, training workshops, community water events, and a worldwide network of educators, water resource

professionals, and scientists. The goals of Georgia Project WET are to facilitate and promote awareness, appreciation, knowledge, and stewardship of water resources through classroom-ready teaching aids aligned to state education standards. In addition, Georgia Project WET offers educators the opportunity to participate in the River of Words, an international poetry and art contest for preK-12 students focused on the theme of watersheds. Each year, all winning art and poetry pieces from Georgia are published in a full color Art and Poetry Journal, are featured on the Georgia Project WET website, and may be available for display at libraries, schools, museums, conferences, non-profit organizations and State buildings.

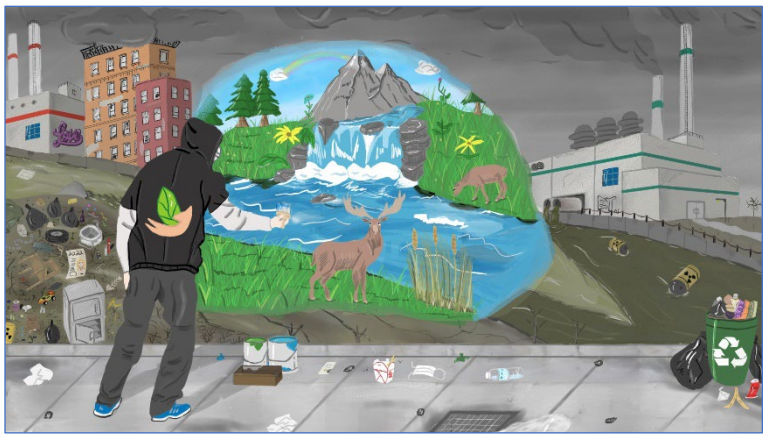

Figure 6: Original artwork submitted to River of Words 2022 by Georgia Student

During FFY2022, Project WET conducted **54** certification training workshops resulting in **366** educators certified in water science education and facilitated **1,400** preK-12 students in River of Words poetry and art projects resulting in **three** national grand prize winners, **34** national finalists, and **48** state winners.

Figure 7: Rivers Alive Clean Up Event with Grady County for the Ochlcockonee River watershed.

Rivers Alive an annual, volunteer, waterway-cleanup partnership between GAEPD, the 20-member Rivers Alive board, local cleanup organizers, and a fiscal partner to process corporate funding in support of program activities. During the reporting period, the partnership produced **129** Rivers Alive cleanups involving **9,672** volunteers who removed **348,781** pounds of trash.

Georgia Adopt-A-Stream (AAS) is a citizen-based, volunteer monitoring and stream protection program targeting all waters in the state. Local governments, universities, and watershed organizations are encouraged to establish AAS programs and serve as coordinators and trainers, following the Quality Assurance Program Plan to train volunteers and collect water quality monitoring data. Achievements during the FFY2022 reporting period included:

- **315** Adopt-A-Stream Quality Assurance/Quality Control (QA/QC) workshops
- certifying **1,459** water quality monitoring volunteers
- **6,446** water quality testing events
- **192** groups at **737** active monitoring sites

These activities led to a greater awareness of water quality and nonpoint source pollution, active cooperation between the public and local governments in protecting water resources, and the collection of basic water quality data. The AAS Program also assists with paddling events that involve teams of volunteers spending one day to a week taking one-time samples from multiple sites and

conducting in situ and lab analysis to make a holistic assessment of water conditions within a watershed or river reach. The goal of these large-scale monitoring events is to help set priorities to assure the most effective monitoring strategies.

While stream monitoring and educational workshops will continue to be the backbone of the Outreach Unit, staff has engaged in other community-based, watershed stewardship activities. These efforts include stream stabilization and rain garden projects that provide another level to reducing nonpoint source pollution and improving water quality.

Total Maximum Daily Load (TMDL) Unit: Developing Prioritized Section 305(b)/303(d) Listed Watersheds for TMDLs and TMDL Implementation

The work of GAEPD's TMDL Unit provided 100% match to the FFY2022 Section 319(h) Grant. The Unit's primary objectives are to develop TMDLs that will be used by state and local entities to restore impaired waters and lead to their "Supporting" the state's designated use. The TMDLs developed help set funding priorities for use of Section 319(h) grant funds.

In FFY2022, in compliance with the USEPA *Long-Term Vision 2013*, GAEPD continued to apply Georgia's List of Priority Waters, based on the Draft Priority Framework 2015, to prioritize impaired waters for development of TMDLs or TMDL alternatives. Details on this process are published on the GAEPD website: https://epd.georgia.gov/document/publication/draftpriorities303dvisionpdf/download

GAEPD has developed TMDLs for all the priority waters identified under USEPA's Vision. Two HUC 8 watersheds in the Ochlockonee River Basin were originally included on Georgia's List of Priority Waters. However, in FFY2021, those watersheds were removed by USEPA because the tracking system was set up to trace completion of plans or TMDLs for individual waters, and not watersheds. While the two HUC 8 watersheds in the Ochlockonee River Basin are no longer part of the official List of Priority Waters, GAEPD will still develop a Nutrient Management Plan for the Ochlockonee River Basin to implement nutrient reductions identified in the Florida Department of Environmental Protection's TMDL for Lake Talquin. While the waters on Georgia's List of Priority Waters are considered priorities under the Vision, GAEPD continues developing TMDLs using the rotating basin approach, and will develop more TMDLs by 2022 than what is accounted for in the "priority" list.

Final TMDLs Approved in FFY2022

- Ocmulgee River Basin Sediment (Bio F) for Nine Stream Segments - July 2022
- Oconee River Basin Sediment (Bio F) for Twenty Stream Segments – August 2022
- Satilla River Basin Selenium for Three Segments – August 2022
- Revised Altamaha River Basin Dissolved Oxygen for Twenty-Eight Stream Segments – April 2022

Proposed TMDLs Developed in FFY2022 (August 2022)

- Draft Ochlockonee River Basin Bacteria for Three Stream Segments
- Draft Satilla River Basin Bacteria for Eight Stream Segments
- Draft St. Marys River Basin Bacteria for Two Stream Segments
  Draft Suwannee River Basin Bacteria for Eleven Stream Segments

Proposed TMDL Supplemental Documents Developed in FFY2022 (September 2022)

- Total of forty (40) individual Draft TMDL Supplement Documents for all previously approved Fecal Coliform Bacteria TMDL reports.

In September 2022, USEPA developed and released guidance for a new Vision Period (2022 – 2032). States were asked to submit a list of TMDLs, TMDL alternatives, or Protection Plans that each State planned to work on in FY 2023 and 2024. This period of time is referred to as the "Bridge Period" as it bridges the time between the end of the first Vision Period (September 30, 2022) and when States will develop a new TMDL Prioritization Framework in 2024.

On September 20, 2022, GAEPD submitted to USEPA the list of TMDLs planned to be developed during the Bridge Period. GAEPD is planning to develop TMDLs for all waters in Category 5 for Fecal Coliform Bacteria on the 2022 305(b)/303(d) list. The goal is to have all these TMDLs completed before the 2024 305(b)/303d) list is completed. The reason GAEPD chose these TMDLs to work on is because the bacteria criteria changed from fecal coliform to *E. coli* or Enterococci as part of the 2019 Triennial Review. The change in bacteria criteria is described in more detail below.

New Bacteria Water Quality Standard from 2019 Triennial Review

As part of the 2019 Triennial Review of Water Quality Standards, Georgia adopted *E. coli* or enterococci criteria for waters designated as fishing, coastal fishing, and drinking water to protect recreators who may inadvertently ingest water. The Georgia Board of Natural Resources adopted the updated criteria on January 28, 2022, followed by USEPA approval on August 31, 2022. The *E. coli* and enterococci criteria replace the fecal coliform bacteria criteria that had been in place since the 1970s.

Since 2002, GAEPD has developed 40 TMDL report documents for waters impaired by fecal coliform as required by Section 303(d)(1)(C) of the Clean Water Act. Considering the recent change in bacteria indicator, GAEPD developed TMDL Supplement Documents to describe the translation of the fecal coliform calculations to the new bacteria indicator, either *E. coli* or enterococci, for the segments identified in the existing approved fecal coliform TMDL documents. To the extent that these existing approved TMDL documents make specific permitting recommendations based on fecal coliform, those recommendations will be translated to the appropriate bacteria indicator (either *E. coli* or enterococci) in all wasteload allocations (WLA). These supplemental documents were placed on public notice on September 12, 2022.

Also in September 2022, GAEPD developed the guidance document "Bacteria Equivalency Strategy for Using the Optimal Indicator Organisms for WQS and NPDES Permitting" to describe how GAEPD would use the new bacteria indicators in NPDES permits and how the change of bacteria indicator would be addressed in future 305(b)/303(d) lists. This document also described the plan to develop the TMDL supplemental documents for existing TMDLs report documents that had been written for fecal coliform bacteria (as described above).

Water Quality Trading Guidance Document

Georgia is taking substantial steps to address nutrient pollution, a national priority, by adding nutrients to the statewide list of priority pollutants (fecal coliform, biota, and DO). Most recently, GAEPD worked with the Florida Department of Environmental Protection and USEPA to develop watershed, river, and lake models for the development of the Lake Talquin TMDL, which was approved by USEPA on August

2, 2022. GAEPD will use these models to develop a Nutrient Management Strategy for the Ochlockonee River Basin.

As reported in previous annual reports, while assessing how new management tools could support statewide water quality control objectives, GAEPD identified water quality trading as one tool that could protect and restore Georgia's waterways. In FFY2021, GAEPD continued to make progress on water quality trading. GAEPD's Watershed Protection Branch published a draft Water Quality Trading Guidance Document and summary of the previous stakeholder processes in June and held four virtual stakeholder meetings on the draft Guidance on July 22, August 19, September 16, and October 14, 2021. Materials are available on the GAEPD website: https://epd.georgia.gov/water-quality-trading. Each of the first three stakeholder meetings focused on a section of the draft Guidance to ensure that participants had sufficient time to review the information and ask questions. The final stakeholder meeting summarized the process, discussed comments received to date, and followed up on participant views of water quality trading as a tool. Following the meetings, GAEPD received additional written comments and held additional small group meetings with commentors. GAEPD is in the process of updating the draft Guidance to reflect input received and provide a response to comments.

Figure 8: A completed stream bank restoration on Holly Creek funded by FY17 319h in partnership with LVRCD and USFWS partners program. Over 300 feet of bank restored and riparian buffer installed.

FFY2022 Project Funds

Each year Georgia competitively awards fifty percent of Section 319(h) grant funds to local projects implementing watershed-based plans. Guidelines for these competitive awards are updated annually and are designed to ensure funding is directed to watersheds that are impaired due to nonpoint source pollution, have the greatest possibility of being restored to "Supporting" status on the Section 305(b)/303(d) list, and meet Georgia's overall goals of reducing nonpoint source pollution in priority watersheds.

Section 319(h) Grant Priorities for Competitive Projects

- Small watersheds (HUC 10 and smaller)
- Restoration of impaired waters
- Protection of quality waters
- Implementation of TMDLs, Watershed Improvement Plans, Watershed Based Plans, and WMPs
- Leveraging other community resources to address nonpoint source pollution

FFY2022 Projects

GAEPD awarded and contracted projects in FY2022 to a diverse group of grantees located in watersheds in all ecoregions of the state. GAEPD was pleased to offer awards to **eight (8)** partner organizations, including **four (4)** first-time grantees (indicated by an *) this fiscal year.

City of Roswell - Water Quality Improvements at Roswell City Hall

This project will install green infrastructure BMPs consisting of six (6) different bioslope configurations within parking lot terraces to treat stormwater runoff from approximately 2 acres of 80% impervious surfaces. The proposed bioslopes will be designed to remove fecal coliform and sediment through infiltration and treatment from the bioslope media mix prior to discharging to Hog Waller Creek which is listed on the 2022 305(b)/303(d) List of Waters due to fecal coliform.

Limestone Valley Resource Conservation & Development Council - Implementation of Chattanooga Creek Watershed Management Plan for Nonpoint Water Quality Improvements

This project will implement the 2022 Chattanooga Creek Watershed Management Plan (WMP) by addressing the nonpoint sources and excessive stormwater runoff contributing to elevated bacteria counts and sediment loads within the impaired segments and other critical areas of the watershed. Best Management Practices include septic, agricultural, and green infrastructure.

*City of Statesboro - Stream Restoration & GI/LID Retrofits in Little Lotts Creek Watershed

This project will develop and implement a Healthy Watersheds Initiative Action Plan that addresses the USEPA's Healthy Watersheds Initiative (HWI) by protecting the "Supporting" reaches of the Little Lotts Creek watershed with proactive efforts to reduce and treat sediment and bacteria sources. Best Management Practices include restoration of a stream channel impacted by erosion and installation of bioretention or bioswale GI/LID retrofits.

*City of Johns Creek - Johns Creek Shakerag Pond Floating Treatment Wetlands Pilot Project

This pilot best management practice project, located at Shakerag Park, will retrofit an existing wet pond with four (4) Floating Treatment Wetlands (FTW), each approximately 75 square feet in size, and anchored in the middle of the Shakerag Pond, approximately 40 feet north of the fishing piers. The FTWs will be planted with non-invasive native wetland species. In addition, the City plans to install approximately 1,500 square ft of littoral shelf adjacent to an area of the pond that is heavily inhabited

by waterfowl due to the lack of native buffer vegetation in the park area. This project will help reduce the *E. Coli* loading in the pond and downstream tributary that drains to an impaired segment (bacteria) of the Chattahoochee River.

City of Atlanta - Atlanta's Moores Mill Road NW Green Infrastructure Improvements

This project will implement the Peachtree Creek Watershed Improvement Plan (WIP) which identifies several opportunities in the Ridgewood Heights neighborhood for stormwater control measures or nature-based green infrastructure solutions that would improve water quality and enhance stormwater management in the Peachtree Creek Watershed. Best Management Practices include installation of bioswale/bioretention cells in a large right-of-way area to replace an existing 400-linear foot stormwater concrete flume.

*Columbia County - Bioretention Repair and Retrofit at Lakeside Park in Columbia County

This project will Implement the Augusta Canal, Butler Creek, and Beaverdam Ditch Watershed Management Plan and the alternative plan addendum for Reed Creek in the Savannah River Basin. Green infrastructure practices (GI/LID) practices at Lakeside Park including repair and retrofit of three (3) existing non-functional bioretention cells (approximately 8,000 square feet), install approximately 750 linear foot permeable pavement-based "GI/LID Educational Trail" (GI/LID Trail) that will connect the bioretention cells and educational signage/messaging, and install at least one (1) new bioretention cell (approximately 1,200 square feet) as a retrofit at an existing landscape island in the primary parking lot. Project park area drains directly to an impaired segment (bacteria) of Reed Creek. GI/LID will reduce the runoff from impervious areas and reduce pollutant bacteria loading.

Georgia Mountains Regional Commission - Upper Little Tennessee Watershed Restoration Initiative

This project will implement the Upper Little Tennessee Watershed Management Plan focusing on the Wolffork Valley area of Keener Creek (biota impacted) which drains to the impaired section of Little Tennessee River (bacteria) in Dillard, Georgia. The project will specifically focus on rural areas of the subwatershed by implementing agricultural best management practices which will address the bacteria and sediment loads.

*City of Homeland – Implementation of the Nine Element EPA Watershed Management Plan for Spanish Creek in Charlton County

This project will implement the Spanish Creek Watershed Management Plan focusing on the Middle Spanish Creek subwatershed that includes Clay Branch (bacteria) and Hatcher's Branch (assessment pending for DO) within the St. Marys River Basin. The project will focus on implementing septic best management practices in the uppermost part of Clay Branch and Hatchers Branch which will address bacteria and low dissolved oxygen impairments.

Limestone Valley Resource Conservation & Development Council - Coahulla Creek Watershed Management Plan Implementation Project- Phase 2

Phase 2 of this project continues to implement the Coahulla Creek Watershed Management Plan (WMP) by addressing the pollutants (pathogens and sediment) within the impaired segments and other areas of the watershed contributing to elevated bacteria counts, elevated sediment loads, and excessive stormwater runoff.

Advancing Green Infrastructure

States, federal agencies, and local jurisdictions throughout the country are shifting to a new paradigm for managing urban stormwater runoff by using Green Infrastructure (GI) and Low Impact Development (LID) to protect or mimic natural hydrology. *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* encourages implementation of GI/LID practices through the following goals:

- Track research on the performance, effectiveness, costs, and maintenance of GI/LID practices and collect performance data from Georgia projects in a range of locations and applications to ensure the highest levels of effectiveness
- Ensure that potential implementers of GI/LID practices, including the construction industry and municipalities, are aware of and have access to the necessary information to successfully install, maintain, and monitor their projects. Continue to support the implementation of GI and LID projects in priority and impaired watersheds, with an emphasis on operations and maintenance and post-construction monitoring
- Document and disseminate the costs and benefits of GI and LID practices and promote resources, including financial resources, that are available for their implementation

The majority of Georgia's competitively awarded Section 319(h) grant projects now include elements of green infrastructure or low impact development. Implementing GI/LID BMPs is the primary activity of some projects, while others focus on education and building understanding of how GI/LID can benefit communities and waterways.

Green Infrastructure Projects Active in FFY2022

- FY2021 - South Chickamauga Headwaters Watershed Management Plan Implementation Project - Phase 3
- FY2021 - Water Quality Improvements in West Jesters Creek Watershed
- FY2021 - Elaine & Ellsworth Green Infrastructure
- FY2021 - Pittman Park Green Infrastructure Improvements
- FY2021 - Cobbs Creek Green Infrastructure and Citizen Stormwater Education
- FY2020 - GI/LID Retrofits in Brunswick From Planning to Implementation
- FY2020 - Utoy Creek WMP Implementation Project - Phase 2
- FY2020 - Implementing Green Infrastructure BMPs in the Nancy Creek Watershed
- FY2020 - Nancy Creek at Windsor Meadows Park Stream and Water Quality Improvements
- FY2020 - Lookout Creek Watershed Management Plan Implementation Project-Phase 2
- FY2019 - Tiered Bioretention Area and Stream Restoration of Arrow Creek
- FY2019 - Peacock Creek Restoration: Green Infrastructure Demonstration in Downtown Hinesville, Georgia
- FY2019 - Phase II - Coastal Green Infrastructure/Low Impact Development Stormwater Best Management Practices Implementation
- FY2018 - Green Infrastructure/Low Impact Development BMPs Implementation in the Vernon River Watershed
- FY2018 - Lynn Creek TMDL Implementation Project
- FY2018 - Phase 2 of Coastal Urban Stormwater BMP Retrofits using GI/LID (Osborne Street)
- FY2018 - Phase II - Monitoring Infiltration Rates of Coastal Low Impact Development (LID) Practices and Implementing the Coastal Georgia Rain Garden Program

- FY2017 - Coastal Green Infrastructure/Low Impact Development BMP Implementation Project
- FY2017 - Phase 1 of Coastal Urban Stormwater BMP Retrofits using GI/LID
- FY2017 - Stekoa Creek WMP Implementation Project
- FY2017 - Georgia Department of Transportation Pilot Green Infrastructure Project
- FY2016 - Implementing the New River Watershed Improvement Plan (HUC #031102030201)
- FY2016 - Implementing the Holly Creek Watershed Management Plan (HUC #0315010104)
- FY2016 - Clayton County Green Infrastructure Project
- FY2016 - Monitoring of Georgia Dept of Transportation Pilot Green Infrastructure Project

Figure 9: City of Calhoun partnering with Mohawk Industries to install several bioretention cells to capture runoff from parking lot. FY18 Lynn Creek TMDL Implementation Project

Success Story

On December 19, 2022, USEPA Headquarters accepted Success Story from the State of Georgia entitled *Proactive Approach Improves St. Marys River and Promotes Green Georgia Infrastructure in Tidal Estuary.* The City of St. Marys in Camden County, Georgia, installed green infrastructure (GI) in two phases to infiltrate and treat polluted stormwater runoff flowing directly to the St. Marys River from a highly impervious urban coastal riverfront landscape. This project demonstrated GI effectiveness to mitigate nuisance flooding, sea level rise, and low dissolved oxygen (DO) in the coastal environment (flat topography, shallow watertables, sandy underlying soils, and tidal influence). A comparison of pre- and post-installation storm sampling showed reductions in sediment, total nitrogen, and total phosphorus loads and higher monthly DO averages for six out of 12 months, indicating a measured improvement in water quality.

NONPOINT SOURCE SUCCESS STORY

Georgia

Proactive Approach Improves St. Marys River and Promotes Green Infrastructure in Tidal Estuary

Waterbody Improved

The City of St. Marys in Camden County, Georgia, installed green infrastructure (GI) in two phases to infiltrate and treat polluted stormwater runoff flowing directly to the St. Marys River from a highly impervious urban coastal riverfront landscape. This project demonstrated GI effectiveness to mitigate nuisance flooding, sea level rise, and low dissolved oxygen (DO) in the coastal environment (flat topography, shallow water tables, sandy underlying soils, and tidal influence). A comparison of pre- and post-installation storm sampling showed reduction in sediment, total nitrogen, and total phosphorus loads and higher monthly DO averages for six out of 12 months, indicating a measured improvement in water quality.

Problem

The Council on Environmental Quality's draft *Climate and Economic Justice Screening Tool* identifies census tracts in the City of St. Marys as overburdened by pollution and suffering economic loss rate to building value caused by natural hazards such as annual flooding. The St. Marys River is a coastal river that discharges into an ocean estuary. A six-mile segment (Catfish Creek to Millers Branch) was placed on Georgia's 2004 Integrated 305(b)/303(d) List of Coastal Streams as "not supporting" the designated use of fishing due to low DO caused by urban runoff from impervious surfaces that decrease base flow and send oxygen-demanding pollutants into the river. Another six-mile segment of the St. Marys River (Millers Branch to Burrells Creek) was moved from "supporting" status between 2012 and 2014 and remains listed as "assessment pending" for DO while the Georgia Environmental Protection Division (EPD) determines the natural DO for the area.

A total maximum daily load (TMDL) revised in August 2017 for the Catfish Creek to Millers Branch segment limits pollutant load allocations from nonpoint sources, expressed as Ultimate Oxygen Demand, to 2,685 pounds (lbs) per day to help meet Georgia's fishing DO standard of a daily average of 5.0 milligrams per liter (mg/L) and not less than 4.0 mg/L. The 2003 water quality data from EPD Station #08D1021 on the St. Marys River at Interstate 95 (I-95) show that low DO usually occurred during the summer months.

Figure 1. Rainwater collects in front of City Hall (on Osborne Street) before project construction.

Story Highlights

The city received Clean Water Act section 319(h) grant funds in 2017 and 2018 to implement Phases 1 and 2 of the "Coastal Urban Stormwater BMP Retrofits using GI/LID Project." The city installed bioretention systems and permeable interlocking pavers along St. Marys and Osborne streets, two Historic Downtown areas prone to flooding (Figure 1).

During Phase 1, 74 parking stalls of permeable pavers (15,885 square feet) and 18 individual bioretention cells (6,210 square feet) captured rain draining from 2.50 acres onto St. Marys Street within 250 feet of the St. Marys River (Figure 2). Outfalls from the GI discharging downstream of the "not supporting" segment become "upstream" during incoming tides. Evaluating GI performance at St. Marys Street, a site impacted by

Figure 10: FFY22 Success Story is available on the USEPA website

Nonpoint Source Program Management Goals

Tracking Milestones, Benchmarks and Timeline

GAEPD uses three primary mechanisms for tracking the progress of *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019):*

1. USEPA Grant Reporting and Tracking System (GRTS) to document Section 319(h) grant project outcomes (water quality improvements, reductions in NPS pollutant loadings).
2. GAEPD NPSP Annual Reports to USEPA to summarize progress in meeting milestones and goals associated with TMDLs, watershed planning, outreach and education, wetlands certification, grant administration, success stories, partners, and other strategies.
3. GAEPD Water Quality Integrated Report to evaluate the water quality of surface water and groundwater and the nature, extent, and causes of documented water quality problems in Georgia. This Report complies with requirements of the Clean Water Act Sections 303(d), 314, and 319, and summarizes ongoing water planning efforts; wetland, estuary, and coastal public health/aquatic life issues; and water protection, groundwater, and drinking water programs.

Additional methods of measuring progress include Water Quality Tracking Tables and Programmatic Indicator Tracking Tables that will be combined into one *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* Implementation Table and updated annually. The 2019 *Plan* revision also includes a new "Assessment of Plan Implementation" chapter describing how GAEPD will assess BMP efficacy and restoration efforts by explicitly connecting implementation to water quality.

In the past, GAEPD has not directed the full potential of a substantial amount of collected data toward consistently and comprehensively assessing the impact of implementing *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* on water quality. To this end, GAEPD will develop a model for connecting all relevant components of NPSP activities, as identified in *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)*, to water quality outcomes. The "Assessment of Plan Implementation" chapter provides a framework for identifying new opportunities and data gaps over the next five years and sets the groundwork for an iterative assessment process.

During FFY2022, GAEPD continued to compile data on progress to meet *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* milestones shown in the chart below. The symbol "-" means "not required in current Report"; but, will be reported in the FFY2023 Report.

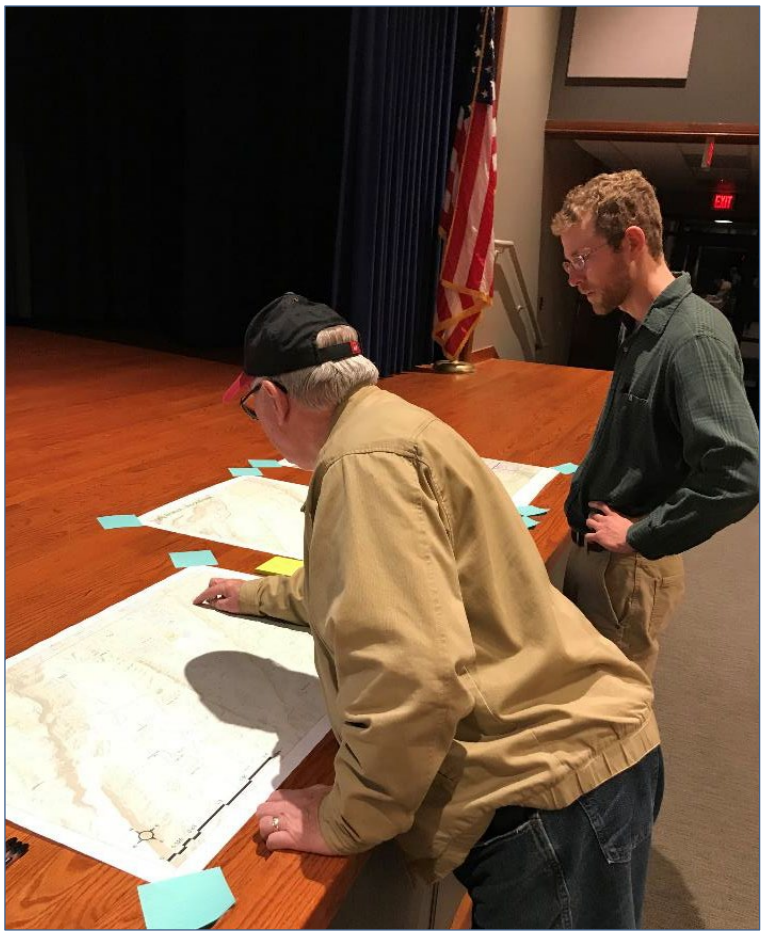

Figure 11: A local citizen of Walker County talks with LVRCD's staff member about water quality in Chattanooga Creek during a public meeting. The FY18 Chattanooga Creek Watershed Management Plan was developed using public input, data collection, and analysis.

Statewide Milestones & Load Reductions

Statewide Milestones for Water Quality Improvement	2022	Milestone Progress	2023
WATER QUALITY IMPROVEMENTS FROM NONPOINT SOURCE CONTROLS			
Number of stream segments supporting designated use on Georgia's 305(b)/303(d) list of waters: Identify the number of stream segments supporting designated use by meeting all water quality standards (List of waters published every two years).	1,030	**1068**	-
Cumulative number of stream segments on Georgia's 305(b)/ 303(d) list of waters where one or more impairments have been restored to meet water quality standards: Identify the number of stream segments where one or more impairments have been restored to meet water quality standards (List of waters published every two years).	21	**39**	-
INTERIM PROGRESS TOWARD RESTORED WATER QUALITY AND HYDROLOGY			
Report on water bodies identified on Georgia's 305(b)/303(d) list of impaired waters as being primarily NPS impaired that are partially or fully restored or show water quality improvement: Submit NPS success story to USEPA.	1	**One** Type 2 Title: *Proactive Approach Improves St. Marys River and Promotes Green Georgia Infrastructure in Tidal Estuary* (City of St. Marys)	1
Tracking ambient water quality vs. stream water quality standards for Nitrogen, Phosphorus, Fecal Coliform, Dissolved Oxygen, and Biota: Number of streams where water quality data was collected by Adopt-a-Stream or GAEPD for use in addressing water quality issues.	50	Monthly sampling during calendar year 2022 of **151** rivers/streams, **28** lakes & **11** estuaries for routine parameters (nutrients, BODS, TSS, DO, pH, temperature, conductivity) at **292** sites; for ortho-phosphate at **112** sites; for bacteria at **239** sites; for metals at **46** sites; for chlorophyll a at **82** sites; for diatoms at **2** sites; and for macroinvertebrates at **1** site.	50
Tracking target trophic status in lakes and estuaries: Produce waterbody reports documenting trophic status in Georgia lakes and estuaries.	On-Going	monthly ambient water quality sampling during the growing season: **28** lakes and embayments at **67** sites and **11** estuaries at **14** sites	On-Going

Statewide Milestones for Water Quality Improvement	2022	Milestone Progress	2023
Green infrastructure within watersheds: Target number of 319 funded projects that are implementing green infrastructure BMPs.	3	FFY21-09 *Pittman Park Green Infrastructure Improvements* City of Atlanta $1,000,000 ($400,000 federal/600,000 match) FFY20-10 *Implementing Green Infrastructure BMPs in the Nancy Creek Watershed (Peachtree Corners)* City of Peachtree Corners $792,749 ($400,000 federal/$392,749 match) FFY20-07 *GI/LID Retrofits in Brunswick - From Planning to Implementation* City of Brunswick $489,023 ($293,289 federal/$195,734 match)	3
PROTECTION OF HIGH QUALITY WATERS			
Attain specific load reduction or maintenance goals in protection oriented plans covering healthy watersheds: Attaining specific load reduction goals (Nitrogen, Phosphorus, Sediment, Fecal Coliform) for grant projects implementing Healthy Watershed Initiative WMPs that meet USEPA's nine elements.	-	New HWI: FY22-09 Stream Restoration & GI/LID Retrofits in Little Lotts Creek Watershed City of Statesboro Project to be contracted with 09/01/2022 start date.	1
Number of BMPs implemented in HWI projects: Track the number of BMPs grant projects implemented in concurrence with Healthy Watershed Initiative WMPs.	-	NA	1
NONPOINT SOURCE POLLUTANT LOAD REDUCTION			
Estimated annual reductions in pounds of nitrogen to water bodies (from Section 319 funded projects): Annually review information from NPS staff and project stakeholders for NPS load reductions of nitrogen; and include information in NPS annual report and GRTS.	60,000 lbs.	**88 lbs.***	60,000 lbs.

Statewide Milestones for Water Quality Improvement	2022	Milestone Progress	2023
Estimated annual reductions in pounds of phosphorus from NPS to water bodies (from Section 319 funded projects): Annually review information from NPS staff and project partners for NPS load reductions of phosphorus; and include information in NPS annual report and GRTS.	25,000 lbs.	**13 lbs.***	25,000 lbs.
Estimated annual reductions in tons of sediment to water bodies (from Section 319 funded projects): Annually review information from NPS staff and project partners for NPS load reductions of sediment; and include information in NPS annual report and GRTS.	15,000 tons	**3 tons***	10,000 tons
	*Lower load reductions were expected due to the number of projects installing small scale GI/LID BMPs.		
IMPLEMENTATION OF NONPOINT SOURCE CONTROLS			
Number of TMDLs or alternatives developed for impaired watersheds: Develop TMDLs or alternatives for impaired waters.	5	**Three** final TMDLs approved (Ocmulgee – Sediment, Oconee – Sediment, Satilla – Selenium) **One** revised final TMDL approved (Altamaha – DO) **Four** draft TMDLs proposed (Ochlockonee, Satilla, St. Mary's, Suwanee – all Bacteria) **Forty** individual Draft TMDL Supplement Documents were developed for impaired waters on the 2022 Georgia 305(b)/303(d) Integrated List of Waters	5
Statistically based survey of implementation rates: Conduct the Biennial Silviculture implementation survey.	1	The statewide Biennial Silviculture was completed in 2021. The BMP Survey evaluated **50,420.69 acres** of forestry operations at **260 eligible sites.** Rating for overall BMP implementation: *92.58%* Rating for statewide overall stream mileage in full BMP compliance: **93.90%**	-

Statewide Milestones for Water Quality Improvement	2022	Milestone Progress	2023
PUBLIC EDUCATION, AWARENESS, AND ACTION			
Participation rates in citizen monitoring activities: Maintain a database of number of active Georgia Adopt-A-Stream monitoring sites annually.	300	**6,446** water quality testing events were conducted at **737** active monitoring sites	300
Participation rates in public awareness and education efforts: Maintain a database of Rivers Alive volunteers to determine number of active participants annually.	20,000	**129** Rivers Alive cleanups involving **9,672** volunteers removed **348,781** pounds of trash	20,000
Participation rates and activity of local watershed groups: Maintain a database of Georgia Adopt-A-Stream participating volunteers to track productivity and diversity of local watershed groups. Track the number of active watershed groups annually.	150	**315** Adopt-A-Stream QA/QC workshops certified **1,459** water quality monitoring volunteers; **192** active watershed groups participated in water quality testing	150
PROGRAM MEASURES OF SUCCESS			
Track number of partners in watershed project implementation: Use Grants Reporting and Tracking System to annually track the number of partners participating in watershed project implementation.	15	During FFY2022 for grant years FFY2017 – FFY2022: **31 different partners** **14** City Governments **2** Community Improvement Districts **1** Consolidated Government **2** County Governments **4** RC&Ds **3** Regional Commissions **1** Soil & Water Conservation District **3** State Government Agencies **1** State University	15
Number of nine element watershed-based plans created or updated: Nine element watershed-based plans developed by NPS plan.	-	FY18-20 Chattanooga Creek Watershed Management Plan – approved September 2022 FY20-05 Implementing the Agricultural Section of the State Nonpoint Source Program Plan (includes developing Hard Labor Creek WMP) - ongoing	1

<u>Progress in reducing unliquidated obligations (ULO):</u> Percentage of ULO funds anticipated yearly GAEPD (total remaining funds/total awarded = percentage ULO).	USEPA R4 Target	FY17 – **13%** FY18 – **66%** FY19 – **74%** FY20 – **95%** FY21 – **98%** FY22 - **100%** (GRTS: December 28, 2022)	USEPA R4 Target

Figure 12: Installation of GI/LID bioretention in Brunswick.

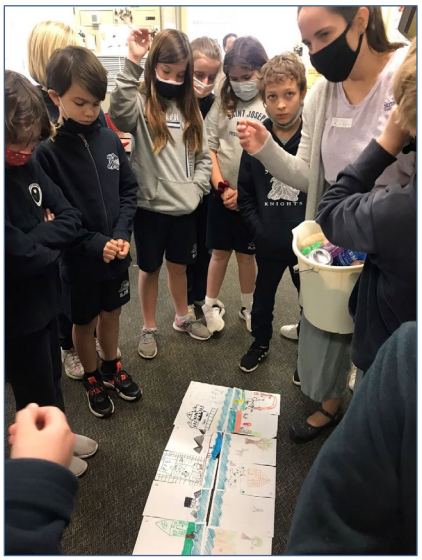

Figure 13: Students do a watershed exercise as part of Project WET/Climate workshops offered by partner facilitator Athens-Clarke County Water Conservation Office.

Expanding Our Reach

With continued support from USEPA, partner agencies, and local grantees, GAEPD is eager to expand our efforts to protect and restore watersheds in FY2023 and beyond.

Aquatic Connectivity

GAEPD is an agency partner of the Georgia Aquatic Connectivity Team (GA-ACT) – a group of organizations and agencies interested in enabling and increasing the pace of obsolete dam removals and the removal of other barriers to aquatic connectivity in Georgia. Goals of the GA-ACT and goals from *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* particularly align in watersheds with sediment impairments. GAEPD is in conversation with the GADNR Wildlife Resources Division and other organizations to potentially use Section 319(h) Grant dollars to fund culvert assessments in watersheds with sediment impairments and prioritize barriers of interest for restoration efforts. Using GA-ACT's Aquatic Barrier Prioritization Tool and methodology, partners would be able to identify projects sites that are appropriate and for best management practices that will result in both aquatic connectivity and water quality improvement outcomes.

Figure 14: Additional culvert assessments in priority watersheds could result in culvert replacement projects such as this one in the Holly Creek watershed in Murray County, Georgia. Photo Credits: GA-ACT website https://ga-act.org/portfolio-item/rock-creek-at-peeples-road-spur/

National NPS Program Equity Efforts

Throughout FFY2022, GAEPD participated in USEPA's engagement efforts on "Near-Term Actions to Support Environmental Justice in the Nonpoint Source Program." GAEPD contributed to the Partnerships & Funding Workgroup and attended all quarterly NPS Program Equity calls with USEPA. As these efforts continue at the national level, GAEPD is committed to advancing efforts at the state level:

- Collaborate with the Georgia Environmental Finance Authority (GEFA) and the Georgia Funders' Forum to align affordability criteria and definitions of "disadvantaged community" or "environmental justice community" for use in funding decisions.
- More deliberate use of USEPA's EJScreen: Environmental Justice Screening and Mapping Tool and other prioritization tools to identify projects in areas of greatest need and environmental impact.
- Create agency workgroup to support environmental justice goals among GAEPD's Nonpoint Source Program and our permitting and monitoring programs.