

ENVIRONMENTAL PROTECTION DIVISION

Nonpoint Source Program Annual Report FFY2020





Final lifting lug installed on *Golden Ray* (Photo: St. Simons Sound Unified Command - 06.2020)





Response teams assess capsized *Golden Ray* (Photo: *The Maritime Executive* - 09.2019)

Golden Ray Demolition St. Simons Sound Incident Response

Incident Updates:

www.stsimonssoundincidentresponse.com



255-foot tall Versabar VB 10,0000 crane (Photo: US Cost Guard - 07.2020)

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GEORGIA'S NONPOINT SOURCE PROGRAM ANNUAL REPORT FFY2020

INTRODUCTION



The Georgia Environmental Protection Division (GAEPD) administers and implements both regulatory and non-regulatory activities under the Nonpoint Source Program (NPSP). In accordance with Section 319(h) (11) reporting requirements, the Georgia NPSP Annual Report delineates progress and success achieved in each federal fiscal year (FFY) in meeting Statewide Milestones for Water Quality Improvement outlined in the current *Georgia's Statewide Nonpoint Source Management Plan*. This annual report presents NPSP efforts and accomplishments (whether or not funded directly by Section 319(h) grants) during the FFY2020 reporting period of October 2019-September 2020, as well as activities proposed for FFY2021.

SECTION 319(H) GRANTS FFY2020 IN REVIEW

Section 319(h) grants help the State and local entities to restore impaired waters and protect healthy waters by supporting BMP implementation in priority, impaired, and healthy watersheds. During FFY2020, the NPSP implemented statewide water quality improvement projects by administering **76** active Section 319(h) Grant contracts totaling over **\$16.873 million** in federal funds and **\$11.410 million** in matching funds or in-kind services. **Fifty-six** of these contracts were for external projects (totaling over **\$13.873 million** in federal funds) that implemented a variety of Best Management Practices (BMP), including agriculture, coastal,

septic repair, other NPS BMPs (stream restoration and educational outreach), forestry (silviculture), and GI/LID urban stormwater runoff. The chart below shows the federal amounts by BMP category for external sub-grants active from October 2019 through September 2020 (no matter what fiscal year the grant was awarded).



SECTION 319(H) GRANTS FFY2020 IN REVIEW

319(h) FFY2020 GRANT CALL

The NPSP Grants Unit revised the application schedule in anticipation of the Section 319(h) NPS Implementation FFY2020 Competitive Grant and issued the call in January 2020 for competitive proposals. Applications would be eligible to receive 60/40 cost-share awards to implement existing Watershed-Based Plans (WBPs) or alternatives. A total of **13 participants** discussed the application process and project eligibility during a required online pre-application webinar conducted on March 19, 2020. In addition, Grants Unit Staff reviewed and commented in writing on draft applications received by March 31, 2020.

The NPSP received **19** proposals by the April 30, 2020, deadline representing almost **\$4.947 million** in grant fund requests. Due to the COVID-19 global pandemic, proposals were reviewed by the Assistant Watershed Protection Branch Chief, NPSP staff, and a U.S. Environmental Protection Agency (USEPA) representative over six online Zoom meetings convened between July 10th and 20th, 2020. **Eight (8)** projects requesting a total of almost **\$2.096 million** in federal funding were selected for competitive awards. The remaining funds out of a total financial petition for **\$3.856 million** will be distributed to ongoing GAEPD NPS programs or noncompetitive projects administered by State agencies and local partners.

Selection of FFY2020 Section 319(h) Competitive Grant Award Recipients					
Recipient	Federal Funding	Match Funding	Project Type		
Golden Triangle RC&D	\$ 137,208	\$ 91,472	WBP Implementation		
City of Brunswick	\$ 293,289	\$ 195,734	GI/LID Retrofits		
Georgia Mountains RC	\$ 86,747	\$ 67,475	WBP Implementation		
City of Atlanta	\$ 400,000	\$ 600,000	WBP Implementation		
City of Peachtree Corners	\$ 391,508	\$ 398,920	GI/LID Retrofits		
City of Sandy Springs	\$ 377,000	\$ 377,000	Streambank Restoration		
River Valley RC	\$ 165,000	\$ 120,000	Phase 2 Implementation		
Limestone Valley RC&D	\$ 245,200	\$ 166,300	Phase 2 Implementation		

319(h) PROJECT CLOSE-OUTS

The Grants Unit closed out a total of **18** Section 319(h) Grant projects between October 2019 and September 2020, representing almost **\$3.409 million** in federal funds, approximately **\$2.491 million** in local match, and totaling about **\$5.900 million**. All contracts supported local on-the-ground BMP implementation projects and state NPSP activities. This value is higher than last year because the USEPA FFY2015 Grant Award expired in FFY2020. The next USEPA Grant Award scheduled to expire will be FFY2016 in FFY2021.





SECTION 319(H) GRANTS FFY2020 IN REVIEW

319(h) GRANT FINANCIAL REPORTING

In the FFY2020 reporting period, the NPSP Grants Unit continued to track quarterly project activities and expenditure of federal and matching funds through Project Schedules negotiated with sub-grantees. Sub-grantees submitted required quarterly and annual reports and invoices to verify progress and more proactively signal any potential issues that might develop, such as the need for contract amendments. The NPSP also continues to work with both GAEPD and the Georgia DNR administrative and accounting staff to provide monthly financial summaries that calculate both federal and matching expenditures, and update the grant balance accordingly. The chart below demonstrates that over half of the State's Section 319(h) funding continues to go to local sub-grantees to implement water quality improvement projects across Georgia.



ADMINISTRATIVE TRAINING

The Grants Unit conducted Administration Training on November 7, 2019, to help increase subgrantees' knowledge of Section 319(h) policies and procedures. **Thirty-two** participants attended in-person at the Georgia Forestry Commission headquarters in Macon, GA, while **16** linked in remotely to access online visuals and audio. A poll of the Grants Unit staff taken in September 2020 showed the following improvements in reliability and quality of grant administration by subgrantees: **80%** negotiating contract scopes and submitting quarterly and annual progress reports; **60%** submitting Close Out Reports, final invoices and deliverables; **40%** initiating contract amendments and submitting invoices with supporting documentation; and **20%** submitting quarterly deliverables and recording MBE/WBE procurement. Plans for Technical Assistance training in 2020 were abandoned due to the COVID-19 pandemic.

SECTION 319(H) GRANTS FFY2020 IN REVIEW

319(h) SUCCESS STORIES

In FFY2020, GAEPD submitted **one Type 2** and **one Type 3** Success Story to USEPA for review, revision and approval. In addition, **one Type 2** Success Story submitted and reported in FFY2019 was approved by USEPA during FFY2020. Success Stories count as a key national NPS restoration measure and highlight impaired waters that show documented water quality improvements attributed to actual NPS control or restoration efforts.

NEIGHBORHOOD-SCALE GREEN INFRASTRUCTURE IMPROVES WATER QUALITY IN MARSH CREEK IN THE CITY OF SANDY SPRINGS - TYPE 2

A four-mile segment of Marsh Creek did not meet State water quality standards based on fecal coliform bacteria data collected in 1992-1996. The City of Sandy Springs was awarded a FFY2013 Section 319(h) grant to install a wetland detention/bioretention green infrastructure (GI) area and a stormwater pond in a headwater tributary three miles upstream of the impaired segment to treat stormwater runoff from the highly urbanized subwatershed. Pre- and postinstallation monitoring of the stormwater systems showed that the project goal of 20% bacteria reduction was surpassed with an average reduction of 84.5%. Data collected during the first two quarters in 2020 at the sampling site immediately downstream of the stormwater BMP show geometric means (counts/100 mL) of 125 and 48, respectively. In addition, geometric means from continuous in-stream sampling of the impaired segment (2015-2020) show bacteria reductions of greater than the **60 percent** required in the 2008 revised total maximum daily load (TMDL). As monitoring continues to show water quality improvement in the impaired segment, the City of Sandy Springs is evaluating remaining sources of bacteria with the goal to remove Marsh Creek from Georgia's impaired waters list for fecal coliform. The City continues to host site tours for city, state, federal and private groups to showcase GI projects in the southeast.

STREAM DAYLIGHTING RESTORED ATLANTA'S CANDLER PARK BROOK - TYPE 3

Benthic macroinvertebrate monitoring and habitat assessments of Candler Park Brook in 1999 indicated a "very poor" rating and "suboptimal" habitat conditions with no fish, respectively. The brook, bordering a public golf course, was buried in underground culverts and channeled through a deteriorating surface concrete ditch. In 2002, the City of Atlanta received a Section 319(h) grant to remove two culverts (850 feet) and daylight another 1,850 feet of underground stream. In addition, stormwater restored to surface flow was directed through 650 feet of bioretention consisting of two micro-pool retention basins and one wet extended detention (ED) pond into a wetland system. Four years of biological monitoring and habitat evaluation showed improvement in the macroinvertebrate rating from "very poor" to "poor" and the return of numerous native mosquito fish. Following the restoration project, beavers colonized the stream floodplain and built two dams that created sizable ponds and wetlands, resulting in **1.3** acres of habitat for wading birds, ducks, frogs and other wildlife. AmeriCorps volunteers replaced many plantings after two years of severe drought following initial riparian revegetation. The Candler Park Conservancy, formed in 2015 to serve as a steward for the brook and surrounding park, has received grants in 2019 and 2020 to develop plans for better stormwater management, erosion and sedimentation control, and invasive species removal.

Success Story information can be accessed at: <u>https://www.epa.gov/nps/success-stories-about-restoring-water-bodies-impaired-nonpoint-source-pollution</u>

TOTAL MAXIMUM DAILY LOADS (TMDLS)

During the FFY2020 reporting period, GAEPD revised the TMDL for dissolved oxygen in the Brunswick Harbor, and USEPA approved **one** revised TMDL for dissolved oxygen on a segment in the Satilla River Basin. GAEPD developed TMDLs for **11** segments assigned "Not Supporting" status on the 2018 Georgia 305(b)/303(d) Integrated List of Waters: **nine** in the Ogeechee and **two** in the Savannah River Basins. GAEPD also issued a public notice on **two** TMDL documents covering **four** segments impaired for Lead and Selenium in the Ogeechee River Basin, which were approved by USEPA. In addition, GAEPD issued public notices on a TMDL covering **one** segment impaired for Enterococci in the Ogeechee River Basin and on **two** TMDLs documenting **four** segments in the Ogeechee River Basin and two segments in the Savannah River Basin with fecal coliform bacteria impairments. The Savannah River TMDLs were later revised and a public notice was reissued.

WATERSHED-BASED PLANNING & ALTERNATIVES TO NINE-ELEMENT PLANS

NOTE: Map & List of Priority HUC12 Watersheds on pages 26-30.

The NPSP recognizes the ten Regional Water Plans (RWPs) and the Metro Water Planning District's Water Resource Management Plan as acceptable alternatives to watershed-based plans that meet USEPA's Nine Elements of Watershed Planning. Combining multiple documents into one summary that addresses all nine elements is also an acceptable alternative to a watershed-based plan. During FFY2020, Section 319(h) FFY2018 grant projects were ongoing to develop **three** plans and update **one** plan, while a FFY2015 contract to update **one** plan was completed. **Two** SFY2018 Regional Water Plan Seed Grant contracts to update watershed-based plans were completed in December 2019 and June 2020, while **one** SFY2018 contract to update a plan will come to term in December 2020.

REGIONAL WATER PLAN (RWP) SEED GRANTS

The Georgia State Water Plan calls for the review and update of RWPs every five years. The ten RWPs and the Metro District's Plan were all updated in FFY2017. GAEPD awards State funds on a competitive basis to support and incentivize local, regional and state units of government in implementing nonpoint source BMPs based on RWP recommendations. Eligible grant proposals must include a letter of endorsement from the relevant regional Water Planning Council(s). During FFY2020, a total of **\$333,904** in available State funds were awarded as competitive, cost-share grants to **six** statewide proposals obligating **\$292,542** in local match with 10% as cash.

OUTREACH & EDUCATION

The Outreach Unit consists of the Georgia Adopt-A-Stream, Rivers Alive Cleanups, and Georgia Project WET (including River of Words Poetry & Art) environmental education programs. In FFY2020, despite limitations due to the COVID-19 pandemic, the Unit continued its holistic approach to watershed protection with virtual meeting/training formats and social distancing field activities to engage and educate the public on nonpoint source pollution. Achievements during the reporting period included **237** Adopt-A-Stream QA/QC workshops certifying **1,195** water quality monitoring volunteers; **5,953** water quality testing events by **223** groups at **684** active monitoring sites; and **116** Rivers Alive cleanups involving **9,984** volunteers who removed **250,488** pounds of trash. In addition, Project WET conducted **37** certification training workshops resulting in **416** educators certified in water science education and facilitated **approximately 1,600** K-12 students in River of Words poetry and art projects resulting in **2** national grand prize winners, **23** national finalists, and **46** state winners.

GROUNDWATER PROTECTION

During the FFY2020 reporting period, GAEPD's District Offices conducted **50** compliance inspections, **23** site visits and **eight** Corrective Action Plan (CAP) reviews for LAS permit holders.

Land Application Systems Only October 2019 - September 2020	Compliance Inspections	Site Visits	CAP Reviews
Coastal District	14	18	2
East Central District	11	0	2
Mountain District - Cartersville	10	0	1
Mountain District - Metro	1	1	0
Northeast District	6	0	0
Southwest District	4	0	0
West Central District	4	4	3
Totals:	50	23	8

WETLANDS WATER QUALITY CERTIFICATION

During October 2019-September 2020, the NPSP continued to increase understanding of wetland restoration and mitigation sites to ensure effective practices. The Wetlands Unit issued **40** CWA Section 401 water quality certificates for dredge/fill impact projects and continued an in-depth, on-going study of wetland hydrology/hydric soils by completing selection of **43** individual assessment stations. These selections were followed by excavation and detailed characterization of hydric soils and installation of groundwater wells at these stations that were arranged in transects or arrays at **five** reference-quality sites previously established in Georgia DNR Wildlife Management Areas within the lower Piedmont (Ecoregion 45) and upper Southeastern Plains (Ecoregion 65). Under a FFY2018 USEPA wetland program development grant, the Unit reviewed archived plans and files for wetland mitigation sites implemented by the Georgia Department of Transportation (GDOT) over the past 15-25 years, prepared assessment documents for these sites, and continued field assessment of selected mitigation sites in southeast Georgia. The Unit also continued to develop a database system designed to address wetland as well as stream, lake and biological monitoring data.

FLOODPLAIN AND FLOOD RISK MANAGEMENT

The Floodplain Management Unit (FMU) works as a Cooperative Technical Partner (CTP) with the Federal Emergency Management Agency (FEMA) to help communities better identify, assess, and communicate their vulnerability to flood hazards. During FFY2020, the FMU continued to advance Flood Risk Mapping Assessment and Planning (MAP) projects in **eight** watersheds. New maps became effective in **13** counties statewide, while preliminary maps were issued in **14** counties. FEMA agreed to prepare **two** Letters of Map Revisions (LOMRs), and preliminary maps will be issued in FFY2021 for **one** Physical Map Revision. Engineering hydraulic and hydrologic studies are ongoing in **three** counties and will receive updated topographic data from LiDAR through USGS in FFY2021. **(TO BE CONTINUED)**

FLOODPLAIN AND FLOOD RISK MANAGEMENT (CONTINUED)

Flood Risk Review (FRR) meetings were held for communities in **seven** counties to present draft flood insurance rate maps. Preliminary Digital Flood Insurance Rate Maps Community Coordination (PDCC) meetings and virtual public open houses will continue through December 2020.

In FFY2020, **seven** new communities enrolled in the National Flood Insurance Program (NFIP) to bring the total of NFIP participating communities up to **577**, leaving **76** communities with mapped Special Flood Hazard Areas not participating. There are now **54** communities in Georgia participating in the NFIP's Community Rating System (CRS), a voluntary incentive program that encourages communities to reduce flood damage risk. After Hurricane Michael in October 2019, the FMU sent General Technical Assistance letters to **66** NFIP participating communities covered under the Presidential Disaster Declaration DR-4400 and NFIP information and application documents to **18** non-participating communities.

The FMU held **one** week-long course entitled "Managing Floodplain Development through the National Flood Insurance Program" (L-273) at the DeKalb County Fire and Emergency office in Tucker, GA. In addition, Community Assistance Visits (CAVs) were conducted during the reporting period in **17** municipal jurisdictions to provide technical assistance and assure that the communities are adequately enforcing floodplain management regulations. The FMU also made **79** Community Assistance Contacts (CACs) to assess local floodplain management ordinances and enforcement practices in NFIP participating communities: **59** by telephone and **20** visits.

In FFY2020, the FMU continued to maintain and update the Georgia Flood M.A.P. web site <u>http://www.georgiadfirm.com/</u> and to migrate historical engineering data inventory and hydraulic model information to the online Flood Model Search Application. The Application supports community officials and engineers in estimating base flood elevations and updating current maps through Letters of Map Changes (LOMCs). In addition, contracts with NOAA and USGS (3 DEP FY17, FY18 and FY19) will establish statewide Quality Level 2 LiDAR technology by 2022 in support of Risk MAP and Base Level Engineering Studies.

SAFE DAMS AND NONPOINT SOURCE (NPS) POLLUTION CONTROL

The Safe Dams Unit inventories, classifies, inspects and permits (as appropriate) more than **4,100** dams in Georgia, including several coal ash ponds. Currently **517** of these structures are classified as high hazard or Category 1 and require permits as well as Emergency Action Plans (EAP). During FFY2020 a total of **21** high hazard dams were issued permits. Upgrades on many of these recently permitted dams ensure that proper sediment and erosion controls are in place to reduce potential nonpoint source pollution. Additionally, **341** of all high hazard dams have a completed and approved EAP.

Within the reporting period, **27** dams were reclassified to Category I status and **11** dams had their classification changed from high hazard to another category. The Safe Dams Unit also assisted the Georgia Aquatic Connectivity Team to develop the dam removal guide entitled *Removal or Modification of Obsolete Dams in Georgia: A Handbook for Project Managers and Dam Owners*, available to the public online at https://ga-act.org/georgia-dam-handbook/. Regrettably, circumstances due to the COVID-19 global pandemic prevented the Unit from conducting annual dam owners training.

GOLDEN RAY DEMOLITION AND SALVAGE

The *Golden Ray*, a 656 foot long car carrier, capsized between St. Simons and Jekyll Islands on September 8, 2019, with a cargo of 4,200 vehicles inside and an estimated 380,000 gallons in its fuel tanks. A Unified Command, comprising staff from the U. S Coast Guard, Georgia DNR, and Gallagher Marine Systems, was established to develop a plan for removing the vessel and minimizing environmental harm. Demolition of the *Golden Ray* was started in November 2020 after months of planning and setbacks. The removal is expected to take two months and Georgia DNR says to expect debris, discharges and even fires. The ship is surrounded by a barrier to contain pollutants.

During the FFY2020 reporting period, a member of the NPSP Erosion & Sedimentation Unit staff in Brunswick represented GAEPD on the Shoreline Cleanup Assessment Technique (SCAT) team for oil survey reconnaissance work both by boat and on foot. The Unit staffer worked with Thomas & Hutton Engineering, GHD Group, Hyundai Glovus, T&T Salvage and the Georgia DNR Coastal Resources Division (CRD) to meet the design, NPDES Construction Stormwater Permitting and Marsh Buffer requirements for the construction of the "Golden Ray Wreck Removal Site". This is the area on land where sections of the vessel will be brought for vehicle processing and demolition. After many discussions and revisions, the Erosion & Sedimentation Unit issued an Erosion, Sedimentation and Pollution Control Plan (ESPCP) review letter on July 29, 2020, stating that the plans were in compliance with GAEPD requirements. Because of the greater potential for oil and debris release during demolition, all SCAT Team members completed the official full **four-day** training class to expand their duties from just survey work to developing cleanup guides and endpoints, monitoring effectiveness of cleanup techniques, inspecting post cleanup conditions, and closing out cleaned areas.

A **255-foot-high** dual-hulled VB 10,000 crane barge sits astride the half-sunken *Golden Ray* and will employ massive anchor chains powered by pulleys and winches to cut through the overturned ship by force of tension. The shipwreck is surrounded by a **1-mile** perimeter environmental protection barrier that includes mesh netting below to catch an automobile rolling loose underwater and a boom lining at the surface to catch oil. **Two** significant oil releases occurred shortly after the vessel capsized, when oil escaped through vents along the sides of the hull. Numerous boats with trained cleanup crews aboard patrol the waters, some specializing in debris recovery and others in oil recovery. Two sleek junk trawlers imported from the Gulf of Mexico also ply the waters, their powerful nets able to pull up large and heavy chunks of debris. **Thousands of feet** of boom have been placed around environmentally sensitive areas or stand ready for deployment on the water if needed. Helicopters patrol overhead, searching for oil or debris and choreographing all those below. Infrared sensors, hydrographic survey equipment and other high tech gadgets monitor for everything from oil to the shipwreck's stability on the sound's sandy bed.

GEORGIA SOIL & WATER CONSERVATION COMMISSION (GSWCC): NPS LEAD FOR AGRICULTURE

During FFY2020, GSWCC and GAEPD continued partnering to identify new tools and strategies for reducing fecal coliform, sediment, and nutrient loads from agriculture nonpoint sources and restore water quality in Georgia.

The GSWCC FFY2018 Section 319(h) grant contract remains on schedule to reduce fecal coliform and sediment loadings by implementing cost-share BMPs and educational outreach recommended in the Coosawattee River-Carters Lake Watershed Management Plan (WMP). Completed activities targeting nonpoint sources of pollution and urban runoff include hosting **seven** stakeholder meetings and conducting **two** farm visits. An additional FFY2018 Section 319(h) grant contract to reduce fecal coliform loadings entering the Chickasawhatchee Creek

watershed is ongoing and up-to-date. Recommended BMPs, educational outreach, and field days focus on nonpoint source from agriculture, water quality pollution management, conservation practices, and avenues for cost-share assistance. Accomplishments include executed one contract with a local landowner and one Lower Chattahoochee Soil Water River & Conservation District monthly meeting of **11** attendees in July 2020 to introduce cost-share opportunities for cover crop planting on fields that are in current row crop production.



A FFY2019 Section 319(h) grant contract was executed on 10/31/2019 in the amount of \$667,685 (Federal:\$400,000; Match: \$267,685) to to reduce fecal coliform levels in the Big Indian Creek and Rooty Creek watersheds. Among the tasks in process are cost-share installations of conservation/agricultural BMPs and field days to inform producers on cost-share assistance.

During the reporting period, a competitive FFY2019 Section 319(h) grant contract with Brier Creek Soil and Water Conservation District for *Reduction of Fecal Pollution in Brushy Creek Watershed* delivered **one** QA/QC Water Quality Monitoring Plan pending GAEPD approval, **four** sampling events, and removal of **83** hogs under **two** hog eradication subcontracts. An ongoing FFY2016 Section 319(h) grant contract with GSWCC for *Implementing the Agricultural Section of the State NonPoint Source Program Plan* was issued a No Cost Time Extension amendment to extend the term to March 31, 2021.

Under a FFY2018 contract the GSWCC continued to develop **two** new nine-element watershed management plans: North Fork Broad River-Middle Fork Broad River (HUC 10 036010401) and Wahoo Creek-Little River (HUC 0313000104). The plans are scheduled for completion in February 2021 and subsequent implementation of recommended BMPs will be allocated \$121,279.00. In addition, a statewide desktop mapping exercise to locate areas with high potential of agricultural contributions to NPS pollution identified Big Generostee Creek-Upper Coldwater Creek and Little Coldwater Creek for funding of agricultural BMPs under the FFY2018 grant.

GEORGIA FORESTRY COMMISSION (GFC): NPS LEAD FOR SILVICULTURE

GFC encourages and monitors voluntary implementation of forestry BMPs statewide resulting in a *Silvicultural Best Management Practices (BMP) Implementation and Compliance Survey* published every other year. The survey reports on progress towards achieving a minimum of **90%** compliance for all recommended BMPs for silviculture through 2030. In FFY2020, the GFC recorded **48** forestry BMP Survey Inspections to complete the 2019 BMP Survey available on the GFC website <u>https://gatrees.org.</u>

The statewide 2019 BMP Survey evaluated **40,950.33** acres of forestry operations at **254** eligible sites (**11** Mountain, **13** Ridge & Valley, **69** Piedmont, **49** Upper Coastal Plain, **112** Lower Coastal Plain) consisting of **156** on non-industrial private forest land (NIPF), **69** on forest industry/corporate land, and **29** on public land. Statewide, **94.40%** of the **8,074** individual BMPs evaluated were implemented correctly, an improvement of **1.23%** from the 2017 BMP Survey. In addition, **96.30%** correct BMP implementation on corporate lands, **97.98%** on public lands, and **92.82%** on NIPF lands showed a rise of **0.95%** on corporate land, **1.11%** on NIPF and **1.77%** on public lands. The number of Water Quality Risks decreased from **51** to **34**, for an improvement of **33.33.%**, with the average risk ratio per site calculated at **0.13** (lower than **0.22** in the 2017 BMP Survey). Of the **131.32** stream miles evaluated, **127.27** miles (**96.92%**) had no impacts or impairments from forestry practices, representing an **0.80%** improvement over the previous survey. Evaluations of **205.09** road miles showed **196.56** miles (**95.84%**) to have no impacts or impairments from forestry practices, a **0.12%** reduction in score from 2017. The evaluation of **129** stream crossings on **69** sites showed a BMP implementation rate of **91.49%**, an increase of **3.30%** from the 2017 BMP Survey.

During the FFY2020 reporting period, the GFC conducted annual statewide BMP Assurance Monitoring of **248** active forestry operations in watersheds listed on Georgia's Integrated 305 (b)/303(d) List of Waters for Biota impairments due to sediment.

Initial	Site	Initial	Complaint	Requested	Request Site
Inquiries	Inspections	Complaints	Site Visits	Inspections	Visits
66	124	35	84	31	40

GFC also provided education, and technical advice, training, and consultation on forestry BMPs. Documentation of GFC activities is provided quarterly to GAEPD.

During the midsummer of 2020, GFC Foresters and Water Quality Staff received information on protocols and quotas for the collection of survey sites across the state in preparation for the 2021 Forestry BMP Survey. At this early stage, only **14** actual survey site inspections have been completed for the 2021 survey with survey inspections and collection of sites likely continuing throughout much of 2021. A final Results Report from the 2021 survey data is planned near the end of 2021.

GEORGIA'S RESOURCE CONSERVATION & DEVELOPMENT COUNCILS (RC&D) AND REGIONAL COMMISSIONS (RC)

In FFY2020, GAEPD continued to improve data coordination with external partners, such as RCs, and encourage grant recipients to post monitoring data to the appropriate database (i.e. Georgia Adopt-A-Stream). The NPSP Grants Unit contracted with RC&Ds and RCs to implement watershed-based plans to meet the goals of the 2019 *Georgia's Statewide Nonpoint Source Management Plan*.

GEORGIA DNR COASTAL RESOURCES DIVISION (CRD): IMPLEMENTATION OF THE COASTAL NONPOINT SOURCE PROGRAM (CNPSP)

The Georgia Erosion and Sedimentation Act was amended in 2015 to include a 25-foot buffer on coastal marshland as measured from the coastal-marshland upland interface, with several specific exceptions (O.C.G.A. § 12-7-6, 12-7-17). GAEPD and Georgia DNR CRD will continue to implement the marshland buffer protections and identify areas for education, outreach, and improved coordination.

During FFY2020, GADNR CRD staff closed the Section 319(h) FFY2015 grant contract and continued to implement the FFY2016 grant contract in support of the *Coastal Nonpoint Source Program*. Completed FFY2015 project goals included support of full federal approval of the



Coastal NPSP, community outreach and technical assistance, **four** focus group meetings on urban NPSP issues, **three** GI/LID trainings with associated BMP site tours, **two** focus groups and associated training on updates to the WeISTROM online septic mapping platform, and installation of **one** Better Back Roads BMP in McIntosh County. Deliverables for the FFY2016 project included presentations of the final Coastal section and the final draft of *Georgia's Statewide Nonpoint Source Management Plan (Revised 2019)* to the Coastal NPSP Advisory Committee and subject-specific experts. Due to the COVID-19 pandemic, the contract end date was amended to March 31, 2021, to implement agricultural BMPs designed by NRCS engineers on the property of an identified producer in Wayne County.

UNIVERSITY OF GEORGIA MARINE EXTENSION AND GEORGIA SEA GRANT (UGA MAREX GSG): COASTAL NONPOINT SOURCE IMPLEMENTATION PROJECTS

The UGA MarEx GSG closed **three** non-competitive FFY2015 grant contracts and continued implementation of the FFY2017 grant contract during the FF2020 reporting period. Completed deliverables for one closed project included **four** GI/LID BMP factsheets, **three** inspection and

maintenance checklists, **one** six-minute video on permeable pavement maintenance, **two** Green Infrastructure Inspection and Maintenance Training workshops, and presentations at **four** regional conferences. The other two closed projects were not completed by contract end date and will finish with FFY2018 and FFY2019 funds. The FFY2018 contract will complete installation of **20** monitoring wells, deploy Citizen Science volunteers to collect and analyze a minimum of **12** months of data, model BMP efficiency, and establish a record of hydrologic performance to improve design and maintenance of GI/LID practices in the future. In addition, implementation of a Coastal Georgia Rain Garden Program will provide stormwater education, resources and piloted voucher incentives to design, build, operate and maintain a minimum of **three** site-specific rain gardens in residential and small business settings. The FFY2019 contract will finish installing **one** rain garden and **one** bioretention system (90% and 95% constructed, respectively) and **one** permeable pavement area (25% completed) in **three** priority coastal counties. Signage will be posted at each BMP location that, combined, receive over 10,000 visitors annually.

Georgia Environmental Finance Authority (GEFA) - Land Acquisition and Green Space

GAEPD will continue to partner with 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.

The Georgia Land Conservation Act (O.C.G.A. §12-6A), passed in 2005, protects and conserves Georgia's natural resources with staff support from GEFA. The Georgia Land Conservation Program (GLCP) was created to implement the Act. As of 2018, the GLCP has played a role in permanently protecting **389,281** acres of land by offering flexible financing options to local governments, State agencies, and conservation organizations. In addition, the 2019 Georgia Outdoor Stewardship Act (GOSA) funds projects consistent with the State's conservation goals including protection of lands critical to clean drinking water; creation of parks and trails; improvements to hunting and fishing areas; protection of water quality, wildlife habitat, cultural and heritage sites, and lands buffering Georgia's military installations; support for economic development; and provision of recreation. Funds come from a dedicated 40% of existing state sales tax on outdoor sporting goods and are administered by GEFA in the form of grants or loans awarded to proposals approved by Georgia DNR for the acquisition or stewardship of conservation lands.

For the inaugural 2019–2020 grant cycle, the Georgia Outdoor Stewardship Program (GOSP) received **58** eligible applications requesting a total of **\$78 million** dollars in grant funding. Of the **14** selected, **eight** applicants are local governments or nonprofit organizations for the development or stewardship of local parks or trail systems, **two** are DNR for the acquisition of conservation land, and **four** are DNR for stewardship projects on state lands.

The 2020-2021 funding cycle closed on October 16, 2020, with final approval of projects scheduled for Summer 2021. For more information about the GOSP and these grants, visit <u>www.qadnr.org/gosp</u>.

GEORGIA ASSOCIATION OF WATER PROFESSIONALS (GAWP): NPS STORMWATER TRAINING

During the reporting period, GAWP led a Stormwater Advisory Committee to develop Georgiaspecific GI and LID training for all interested stakeholders and continued localized training programs to help the regulated community comply with MS4 Permit requirements for runoff reduction:

- **One** 35-hour National Green Infrastructure Certification Program (NGICP) course and exam held in December 2019 to provide the skill set workers need to become certified in proper construction, inspection, and maintenance of green stormwater infrastructure.
- **One** six-hour virtual workshop entitled *Keeping Green Infrastructure Green: Selection, Installation & Maintenance of Plants & Soil in Stormwater Infrastructure Practices* to provide insights into effective plant selection, planting plans and soil blends, installation procedures, protocols and timelines for successful, economical practice maintenance, and correct field assessment and reporting of common installation and maintenance errors.

NATURAL RESOURCES CONSERVATION SERVICE (NRCS): SOURCE WATER PROTECTION PROVISION (2018 FARM BILL) - PARTNERSHIP WITH GEORGIA EPD DRINKING WATER PROGRAM SOURCE WATER ASSESSMENT TEAM

NOTE: Maps of FY2021 Georgia NRCS National Water Quality Initiative (NWQI) Source Water Protection Priority Areas - (SWPPA) Counties and River Basins on pages 31 and 32

NRCS has leveraged an existing National Water Quality Initiative (NWQI) partnership with GAEPD to implement the source water protection provisions of the 2018 Farm Bill. Source Water Protection Priority Areas (SWPPA) may cover surface and/or ground water sources (wellhead protection) of community drinking water systems. Agricultural activities may be characterized as actual (remediation efforts) or potential threats (protective efforts).

Mandated actions were completed by September 30, 2020, to refine local priority areas in each State for drinking water protection, to provide increased incentives for practices that relate to drinking water quality and quantity while also benefitting producers, and to dedicate at least **10%** of available conservation funds to source water protection. The proposed SWPPA for Georgia will be the focus for NRCS agricultural conservation funding in FFY2021.

During the FFY2020 reporting period, the GAEPD Source Water Assessment Team (SWAT) attended several USDA NRCS meetings held online to refine the criteria for groundwater and surface-water SWPPA for Georgia. SWPPA were assigned based on HUC 12-digit watersheds with at least **50%** coverage and on selected watersheds that feed Lake Lanier, Lake Allatoona and along the Lower Flint River. The number of Source Water intakes was also considered to a varying degree in each SWPPA to equalize opportunities between Areas. Watersheds with more than **50%** "developed" land were removed. A total of **344** HUC 12-digit watersheds consisting of **7,343,033** watershed acres were divided into **four** Areas designated as Georgia SWPPA (**19.5%** of Total of state) and sent to the NRCS panel for approval:

- Area 1 has **4.7%** of Total of state
- Area 2 has 4.9% of Total of state
- Area 3 has 4.6% of Total of state
- Area 4 has 4.9% of Total of state (Area 3 influence)



Photo: Park Marina on Lake Allatoona

Addressing Georgia's NPS Pollution Sources

SURFACE MINING

The Georgia Surface Mining Act provides for the issuance of a mining permit at the discretion of the GAEPD Director to reduce pollution or deterioration of land, water, and air attributable to mining. The permit application requires a Mining Land Use Plan (MLUP), reclamation strategies, and a surety bond to guarantee proper management and reclamation of surface mined areas. A Soil and Erosion Control Plan details engineering features and operational BMPs (sedimentation ponds, erosion and sedimentation provisions, construction controls) and is a major part of the MLUP. During the FFY2020 reporting period, the Surface Mining Unit continued to reduce sediment loads coming from mining activities. As of September 30, 2020, the Surface Mining Unit regulated approximately **748** surface mines including quarries, clay mines, dredging operations, and borrow pits.

AGRICULTURE

During FFY2020, the FFY2016 grant contract with Forsyth County for the *Fourmile Creek Water Quality Improvement Project* was successfully completed. Final agricultural livestock BMP deliverables included **13,266** linear feet of woven wire fence, **four** stream crossings, and **three** watering ramps. An educational brochure and fact sheet were produced and distributed at an Agricultural Field Day attended by **35** participants where a video monitor showed drone flyover aerial footage of installed BMPs in the watershed. Attendees at the gathering also received a brief presentation on macroinvertebrate monitoring and enjoyed tractor rides to view **two** alternative watering systems ("four-ball" trough and ram-jet pump) that were part of the overall BMP installation, but, not funded by the Section 319(h) grant. Sampling for *E. coli* and fecal coliform bacteria, source tracking DNA markers, macroinvertebrates and water chemistry during Spring through Fall 2019 showed decreased bacteria counts since 2017, ruminant (cattle) DNA markers, a Multi-Metric Index score of **59** out of 100 (due to a large percentage of sensitive insect species) and a habitat assessment of **109** out of 200 (Sub-Optimal). STEPL modeling to estimate load reductions resulted in **17.5%**, **26.2%**, **7.4%** and **34.9%** for nitrogen, phosphorous, BOD and sediment, respectively.

BETTER BACK ROADS MANUAL UPDATE

During the FFY2020 reporting period, the NPSP executed a FFY2019 grant contract with Golden Triangle RC&D to update the *Georgia Better Back Roads Field Manual* (Red Book). Deliverables included establishing a Committee of local governments and organizations, hosting **four** bi-weekly meetings, scheduling **two** rounds of updates, holding **two** technical data transfer days, and adding NRCS soil type classifications and maps along with the link to Erosion & Sediment Control practices and effective soil-type maintenance to the resource section of the Red Book.

The first round of updates will compare the 2009 to the 2016 editions of the GSWCC *Manual for Erosion & Sediment Control in Georgia Manual* (Green Book). Round two will gather input from other participating organizations. Each Committee member was assigned practices within their specific subject-matter expertise to update along with a corresponding USEPA region and those states' Better Back Roads manuals to correlate practices. The updated Red Book will be produced and distributed both in print and electronic format to be used by state and federal agencies, other RCD councils, and local city and county road departments.

Addressing Georgia's NPS Pollution Sources

NUTRIENTS & WATER QUALITY TRADING

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). In addition, GAEPD has developed *Georgia's Plan for the Adoption of Water Quality Standards for Nutrients* as well as permitting strategies for total phosphorus and ammonia. While assessing how new management tools could support statewide water quality control objectives, GAEPD identified water quality trading as one tool to protect and restore Georgia's waterways. Water quality trading and other market-based strategies have the potential to lead to cost-effective reductions in pollutant loads in impaired watersheds. GAEPD will fully explore and implement this tool to the extent practicable.

During FFY2020, GAEPD's Watershed Protection Branch held **three** statewide public meetings on the *Development of a Nutrient Trading Framework* October 16, 2019, in Dry Branch; October 23, 2019, in Atlanta; and October 28, 2019, in Calhoun. The workshops facilitated discussion on opportunities for and barriers to nutrient trading in Georgia, and gathered input from National Pollutant Discharge Elimination System (NPDES) permittees, the agriculture community, mitigation bankers, land trusts, the public, and other stakeholders on a potential nutrient trading framework. A <u>Water Quality Trading FAQ Sheet</u> was posted on the GAEPD website for more information about water quality trading in Georgia, and stakeholders were encouraged to write or email comments to GAEPD. Following the meetings, GAEPD compiled the meeting notes and comments into a stakeholder process summary document. GAEPD convened an internal workgroup to develop draft guidance and incorporate stakeholder feedback. The internal workgroup will continue to meet in FY2021 to develop a full draft document that will be made available for public review and comment.

CONSTRUCTION

GAEPD continues to improve communication with stakeholders and the public about stream buffer protections and variances associated with land disturbing activities. In areas with no Local Issuing Authorities (LIA), GAEPD enforces the Georgia Erosion and Sedimentation Act (GESA) and conducts statewide workshops for LIA, design professionals and the regulated communities. Currently, **321** municipal and county governing authorities are certified Local Issuing Authorities. As of September 30, 2020, a total of **24,609** construction sites in Georgia have coverage under the *NPDES State General Permits for Stormwater Discharges Associated with Construction Activities* (**8,528** Primary Permittees, **7,136** Secondary Permittees and **8,945** Tertiary Permittees).

URBAN RUNOFF

From October 2019-September 2020, more than **\$5.322 million** in Section 319(h) funds were dedicated to projects that focused on reducing the impacts of stormwater on water quality. In FFY2019, **two** new stormwater systems were placed under Municipal Separate Storm Sewer (MS4) permits (Phases I Large, Medium, or Small; Phase II). A total of **116** permittees were regulated under **three** GAEPD Phase II MS4 NPDES general permits: **109** Small MS4, adding the City of South Fulton; **one** GA Department of Transportation (GDOT); and **six** U. S. Department of Defense (USDOD). The Phase II Small MS4 permit for USDOD facilities was reissued January 15, 2019, adding **one** facility to the permit. In addition, a total of **57** municipalities are under GAEPD Phase I MS4 NPDES permits: **12** Medium and **45** Large.

(TO BE CONTINUED)

ADDRESSING GEORGIA'S NPS POLLUTION SOURCES

URBAN RUNOFF (CONTINUED)

The Phase I Large MS4 NPDES Permit was reissued June 11, 2019. The General Permit for Stormwater Discharges Associated with Industrial Activity (GAR050000), reissued June 1, 2017, covers a total of **2,141** industrial facilities. The total number of permitted industrial facilities has been adjusted to correct for duplicate submittals and faulty permit numbers recorded in the past.

FAILING ONSITE SEWAGE DISPOSAL SYSTEMS (OSDS)/SEPTIC SYSTEMS

GAEPD regulates OSDS, or septic systems, that treat over 10,000 gpd of wastewater. The 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 in accordance with the *Manual for On-Site Sewage Management Systems*. In FFY2020, approximately **\$1.004 million** in federal funds were dedicated to projects that support BMPs in watersheds with documented negative effects of failing septic tanks on water quality; that enhance mapping tools to track and inventory septic tanks; and that design or apply studies to build comprehensive knowledge of the effects of OSDS on water quality.

SILVICULTURE

Due to the COVID-19 pandemic, the Georgia Forestry Commission (GFC) conducted many of the workshops/trainings listed below through web-based formats. Online presentations will continue to support the GFC's forestry water quality and BMP education programs.

During FFY2020, GFC staff distributed at least **614** copies of BMP brochures at **24** in-person events and participated in **146** public events for **3,466** cumulative attendees which included **18** GAEPD meetings, **two** Master Timber Harvester workshops, **42** Continuing Logger Education (CLE) and other BMP trainings, and **84** meetings with various groups. In addition, GFC performed **12** BMP Demonstrations for **84** participants; conducted **134** primary specific forestry BMP Advice Visits; and completed **239** Stewardship Plans covering **78,859** acres on forest management, soil/water conservation and forestry BMPs. GFC foresters completed **170** Firebreak BMP Inspections, hosted **34** Logger Conferences and **35** Forester/Ranger Trainings that included classes for new employees through the online GFC Fire Academy.

GREEN INFRASTRUCTURE IMPLEMENTATION

Within the FFY2020 timeframe, GAEPD executed **two** new Section 319(h) Grant contracts that support the implementation of GI/LID practices in priority and impaired watersheds, with an emphasis on operations and maintenance and post-construction monitoring. In addition, FFY2018 and FFY2019 grant funds were reallocated to complete **two** original FFY2015 contracts for GI implementation, and **two** FFY2019 grant contracts to install GI practices are pending full execution.

• The City of Chamblee executed a competitive FFY2019 contract for a tiered bioretention area and stream restoration in the Arrow Creek watershed. The 0.5-acre tiered bioretention area will reduce stormwater velocity and volume and remove 900 lbs/year of total suspended solids (TSS). The stream restoration involves approximately 1,800 linear feet of Arrow Creek and is expected to reduce sediment loads by nearly 32,000 lbs/year.

Addressing Georgia's NPS Pollution Sources

GREEN INFRASTRUCTURE IMPLEMENTATION (CONTINUED)

- The City of Atlanta contracted a competitive FFY2018 award to treat stormwater runoff in the Utoy Creek watershed by constructing bioretention cells and/or pervious pavement; daylight a portion of a piped section of Utoy Creek, if feasible, through the Outdoor Activity Center; and create aesthetic projects that blend with the area amenities.
- UGA Marine Extension Georgia Sea Grant (MarEx GSG) contracted FFY2018 funds for Phase II of a FFY2015 noncompetitive project to finish placing monitoring stations; complete site drawings and photos of monitoring equipment locations; implement the Coastal Georgia Rain Garden Program; distribute cost-share vouchers; and install a minimum of three (3) rain gardens in residential and small business settings.
- FFY2019 funds were reallocated to finish a FFY2015 noncompetitive project contracted with the UGA Marine Extension Georgia Sea Grant (MarEx GSG). Phase II will install stormwater infiltration BMPs including a rain garden and bioretention system (90-95% constructed) and a permeable pavement area (25% completed). These BMPs are expected to reduce flooding and remove 0.4 lbs/year and 0.08 lbs/year of nitrogen and phosphorous, respectively, and manage 0.01 tons/year of sediment. In addition, the BMP locations receive over 10,000 visitors annually and will serve as educational demonstrations of GI/LID practices in a coastal environment.
- A FFY2019 grant contract with the University of Georgia is pending final execution to construct GI water quality demonstration projects in the Peacock Creek watershed. These projects will be applied to illustrate the contribution of GI to ecosystem services; to promote adoption of site-scale GI; and to support community resilience through environmental restoration and GI practices.
- The City of Garden City's FFY2019 grant contract is pending execution to implement GI BMPs that will improve the condition of a priority hydromodification feature and reduce nonpoint source pollution.

FACILITATE TMDL IMPLEMENTATION FOR ALL SECTION 305(b)/303(d) LISTED WATERSHEDS

GAEPD documents primary assessments of statewide water quality in a biennial report along with an integrated List of Waters that are both "Supporting" and "Not Supporting" their designated uses. "Not supporting" waters are placed on the 303(d) portion of the List which identifies the causes of impairments and establishes ranking priorities, including those waters targeted for TMDL development. Pollutant reduction activities focus on fecal coliform, sediment, and oxygen demanding contaminants and may result in addressing co-occurring pollutants, such as metals. Major water quality indicators such as biota and dissolved oxygen (DO) make up the majority of the listed impairments as well as Georgia's TMDLs, and are the targets for water quality restoration. During FFY2020, the Integrated Report was translated into an interactive StoryMap for greater accessibility by stakeholders and the public, and the 2020 Section 305(b)/303(d) List of Waters was approved by USEPA on August 5, 2020. Current and historical 305(b)/303(d) List documents and guidance for qualifying and submitting water quality data are posted on the GAEPD web site at https://epd.georgia.gov/watershed-planning-and-monitoring-program/water-quality-georgia.

IDENTIFY WATERSHEDS WHERE NPS POLLUTION IS CAUSING IMPAIRMENT AND RESTORE DESIGNATED USES FOR ALL SECTION 305(b)/303(d) LISTED WATERSHEDS

GAEPD initiated updates to prioritization models in calendar year 2020 and utilized new data to ensure that priority issues and watersheds are identified and addressed. During FFY2020, in accordance with the USEPA *Long-Term Vision*, GAEPD continued to apply Georgia's List of Priority Waters, based on the Draft Priority Framework, to prioritize impaired waters for development of TMDLs or TMDL alternatives: <u>https://epd.georgia.gov/document/publication/</u><u>draftpriorities303dvisionpdf/download</u>. The NPSP continued to consider project proposals to implement TMDLs as priorities for Section 319(h) grant funding.

GAEPD has developed TMDLs and/or issued NPDES permits for all the waters identified under USEPA's *Vision* except for the Ochlockonee River Basin. GAEPD will develop a Nutrient Management Plan for the Ochlockonee River once USEPA approves the Florida Department of Environmental Protection's TMDL for Lake Talquin. Nutrient and chlorophyll criteria developed for Lakes Oconee and Sinclair per "Georgia's Plan for the Adoption of Water Quality Standards for Nutrients" are pending USEPA approval. 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.

During October 2019-September 2020, **1,048** stream/coastal segments were "Supporting" designated uses on Georgia's approved 2020 List of Waters, with **66** of these waters assessed for the first time as "Supporting". In addition, at least one impairment parameter was removed between 2018 and 2020 for **20** stream/coastal segments.

MANAGE NUTRIENTS FROM COMBINED ANIMAL FEEDING OPERATIONS (CAFOS)

GAEPD covers **three** CAFO facilities under the NPDES General Permit. There are also **95** CAFO facilities under **two** LAS CAFO General Permits (**34** Large and **61** Medium). Between October 2019 and September 2020, the Georgia Department of Agriculture, under contract with GAEPD, inspected **26** permitted CAFO facilities and investigated **13** water quality complaints.

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 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* 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* 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*, 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.

STATEWIDE MILESTONES FOR WATER QUALITY IMPROVEMENT

During FFY2020, 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 FFY2021 Report.

Statewide Milestones for Water Quality Improvement	2020	Milestone Progress	2021		
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).	1,000	1,048	-		
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).	19	20	-		

Statewide Milestones for Water Quality Improvement	2020	Milestone Progress	2021		
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 <u>quality improvement:</u> Submit NPS success story to USEPA.	1	One Type 2 Title: Neighborhood-Scale Green Infrastructure Improves Water Quality in Marsh Creek (City of Sandy Springs) One Type 3 Title: Stream Daylighting Restored Atlanta's Candler Park Brook (City of Atlanta)	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 FFY2020 of 233 rivers/ streams, lakes/estuaries and sounds: 324 sites (nutrients, BODS, TSS, DO, pH, temperature, conductivity); 119 sites (ortho-phosphate); 208 sites (bacteria); 58 sites (metals); 77 sites (chlorophyll a); 12 sites (diatoms); and 17 sites (macroinvertebrates).	50		
<u>Tracking target trophic status in lakes and estuaries:</u> Produce waterbody reports documenting trophic status in Georgia lakes and estuaries.	Report; On- Going	During FFY2020, GAEPD conducted monthly ambient water quality sampling during the growing season: 28 lakes and embayments at 68 sites and 8 estuaries at 9 sites	On- Going		
<u>Green infrastructure within watersheds:</u> Target number of 319 funded projects that are implementing green infrastructure BMPs.	2	FFY19-11 <i>Tiered Bioretention Area &</i> <i>Stream Restoration</i> of <i>Arrow Creek</i> City of Chamblee \$800,000 (\$400,000 federal/\$400,000 match) FFY18-12 <i>Green Infrastructure</i> <i>Projects in Utoy Creek</i> City of Atlanta \$911,000 (\$211,000 federal/\$700,000 match)	2		

Statewide Milestones for Water Quality Improvemen	t 2020	Milestone Progress	2021		
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 EPA's nine elements.	-	-	1		
Number of BMPs implemented in HWI projects: Track the number of BMPs grant projects implemented in concurrence with Healthy Watershed Initiative WMPs.	-	-	1		
NONPOINT SOURCE POLL	UTANT LOA	AD 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 Ibs.	107,820.66 lbs.	60,000 Ibs.		
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 Ibs.	28,388.04 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.	10,000 tons	6,579.94 tons	15,000 tons		
IMPLEMENTATION OF NON	POINT SOUI	RCE CONTROLS			
Number of TMDLs or alternatives developed for impaired watersheds: Develop TMDLs or alternatives for impaired waters.	5	During October 2019 – September 2020, 11 draft TMDLs were developed for impaired waters on the 2018 Georgia 305(b)/303(d) Integrated List of Waters	5		
Statistically based survey of implementation rates: Conduct the Biennial Silviculture implementation survey.	1	Rating for statewide overall BMP implementation: 94.40% Rating for statewide overall stream mileage in full BMP compliance: 96.92%	-		

Statewide Milestones for Water Quality Improvement	2020	Milestone Progress	2021			
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	During October 2019 – September 2020: 10,813 volunteers at 684 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	During October 2019 – September 2020: 9,984 Rivers Alive volunteers at 116 events	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	During October 2019 – September 2020: 223 active watershed groups	150			
PROGRAM MEASUR	ES OF SUC	CCESS				
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 FFY2020 for grant years FFY2015-FFY2020: 33 different partners - 12 City Governments 1 Community Improvement District 1 Consolidated Government 3 County Governments 1 Nonprofit 5 RC&Ds 5 Regional Commissions 1 Soil & Water Conservation District 3 State Governments 1 State University	15			
Number of nine element watershed based plans <u>created or updated:</u> Nine element watershed based plans developed by NPS plan.	-	-	1			
Progress in reducing unliquidated obligations (ULO): Percentage of ULO funds anticipated yearly GAEPD (total remaining funds/total awarded = percentage ULO).	EPA R4 Target	FY15 - 00% FY16 - 41% FY17 - 57% FY18 - 94% FY19 - 98% FY20 - 100% (GRTS: December 15, 2020)	EPA R4 Target			

MOVING FORWARD IN FFY2021

319(h) FFY2021 GRANT CALL

The NPSP Grants Unit revised the official schedule for the Section 319(h) NPS Implementation FFY2021 Competitive Grant due to the COVID-19 pandemic. The general guidelines, official application, and related documents are expected to be posted online in January 2021. The Section 319(h) Grants webpage has been updated with a subscription service to receive email notifications regarding award opportunities. And, files for active grant contractors will be ***Coming Soon***.

Promotion of the FFY2021 competitive grant will include email "blast" messages to Mayors and Clerks; Association of County Commissioners of Georgia members; Board of Directors; General Contacts; Georgia Municipal Association members; Regional Commissions (RCs); and Resource Conservation & Development Councils (RCDs). In addition, GAEPD anticipates announcing the grant call via the grants.gov delivery system and targeting audiences with virtual Lunch & Learn events.

FFY2021 Section 319(h) Grant Competitive Awards Time Line

- January 2021: GAEPD call for proposals
- March 10, 2021: Pre-application Meeting Webinar (required)
- March 31, 2021: Deadline to email DRAFT proposals for GAEPD written evaluation (optional)
- April 30, 2021: Deadline to email digital applications to GAEPD
- Summer 2021: Grant award selection
- Summer 2021: Notification of grant award to selected recipients
- Fall 2021: GAEPD and award recipients finalize project scopes of work
- Fall 2021: Execute contracts, start work

Attending a pre-application meeting webinar, held on March 10, 2021, is required for all competitive applicants prior to submittal of applications. Grants Unit staff will produce and post a slide shoe or video to view online prior to the meeting, and answer questions on potential projects and how to apply for the FFY2021 Grant on the day of the webinar.

DRAFT application proposals received by March 31, 2021, will be evaluated in writing by GAEPD staff. FINAL applications emailed in electronic format by the deadline of April 30, 2021, will be reviewed and scored, and award recipients notified in Summer 2021. Applications delivered by hand or sent by mail will no longer be accepted

At least 50% of Section 319(h) Grant funds is allocated to projects (competitive and noncompetitive) that implement the goals of *Georgia's Statewide Nonpoint Source Management Plan* (Rev 2019). Proposals eligible for competitive awards must implement existing watershed-based plans or alternative plans that meet USEPA's Nine Elements of Watershed Planning. Implementation projects eligible for funding must specify the nonpoint sources of pollution and identify the activities best suited to address those sources.

GAEPD will continue to track the implementation and effect of nonpoint source BMPs identified in the Regional Water Plans. The SFY2021 State RWP Seed Grant was announced in July 2020. The NPSP Grants Unit will complete pre-application meetings by October 16, 2020, and applications are due by October 31, 2020. State funding is limited to **\$75,000** and projects selected for awards will be announced in Winter 2020-2021. Although RWP Seed Grants are restricted to projects associated with the ten Regional Water Planning Councils, applicants within the Metro District are eligible to request State funding if the project benefits and is endorsed by a neighboring Water Planning Council and implements BMPs recommended in those councils' RWPs.



GEORGIA NPSP PRIORITY HUC12 WATERSHEDS WATERSHEDS IMPACTED BY THE NINE PRIORITY

030701060301

Fivemile Creek

WATERSHED NAME **Broxton Creek** Gola Creek-Potato Creek Amys Creek-Chattahoochee River **Dykes Creek** Perry Creek-Spring Creek Scull Shoal Creek-Broad River Suwannee Creek Marlow Branch-Salacoa Creek Penholoway Creek Sterling Creek-Ogeechee River **Oochee Creek-Oconee River** Gulf Creek-Lookout Creek Lost Creek Caney Branch-Black Creek Snake Creek-Oostanaula River Drag Nasty Creek-Chattahoochee River Lower Long Cane Creek Middle Big Indian Creek Alapahoochee River Lower Mud Swamp Upper Soquee River Little Red Bluff Creek Upper Stekoa Creek Lawrence Creek-Pumpkinvine Creek Horse Branch-Turkey Creek Little Echeconnee Creek Sixty Foot Branch Upper Tatum Creek Lower Lanahassee Creek Smith Creek-Chattahoochee River Lower Tesnatee Creek Lower Rooty Creek **Tenmile Creek** Little St. Marys River Penholoway Swamp-Altamaha River Woodward Creek Lower Horse Creek Lower Runs Branch Hardin Canal-Little Ogeechee River Little Creek-Black Creek Upper Beaverdam Creek Cedar Creek Town of Boykin-Spring Creek

DNR BASIN COUNTY Satilla Flint Chattahoochee Coosa Flint Savannah Suwannee Coosa Altamaha Ogeechee Oconee Tennessee Ochlockonee Ogeechee Coosa Chattahoochee Chattahoochee Oconee Suwannee Suwannee Chattahoochee Satilla Savannah Coosa Oconee Ocmulgee Satilla Suwannee Flint Chattahoochee Chattahoochee Oconee Flint Saint Mary's Altamaha Coosa Ocmulgee Savannah Ogeechee Ogeechee Oconee Ocmulgee Flint Altamaha Appling

Coffee Pike Habersham Floyd Calhoun Madison Clinch Gordon Wayne Bryan Wilkinson Dade Mitchell Bulloch Gordon Quitman Troup Morgan Lowndes Lowndes Habersham Atkinson Rabun Paulding Laurens Crawford Pierce Clinch Webster White White Putnam Upson Camden Wayne Floyd Telfair Effingham Chatham Bryan Greene Wilcox Miller

HUC12	WATERSHED NAME	DNR_BASIN	COUNTY
030601080103	Whites Creek-Brier Creek West Chickasawhatchee Creek-	Savannah	McDuffie
031300090806	Chickasawhatchee Creek	Flint	Dougherty
030602030505	Middle Taylors Creek	Ogeechee	Liberty
030601020203	West Fork Chattooga River	Savannah	Rabun
060200010702	Lower East Chickamauga Creek	Tennessee	Catoosa
031501010402	Mill Creek-Holly Creek	Coosa	Murray
031300021103	Mountain Oak Creek	Chattahoochee	Harris
031300050901	Honey Bee Creek-Potato Creek	Flint	Lamar
030701031104	Cabin Creek	Ocmulgee	Spalding
030601030407	Little Coldwater Creek	Savannah	Hart
030701011401	Nelson Creek-Little River	Oconee	Newton
031300010505	Tate Creek-Chestatee River	Chattahoochee	Lumpkin
030702030101	Little Buffalo Creek	Satilla	Glvnn
031300031501	Clear Creek-Pataula Creek	Chattahoochee	Stewart
031300050907	Jerry Reeves Creek-Potato Creek	Flint	Upson
031300031507	Lower Holanna Creek	Chattahoochee	Quitman
031102030404	Valdosta-Withlacoochee River	Suwannee	Lowndes
031102040501	Wells Mill Creek	Suwannee	Cook
030701011103	Lower Beaverdam Creek	Oconee	Greene
031200030205	Lower Swamp Creek	Ochlockonee	Decatur
031501030201	Camp Creek	Coosa	Gordon
030701040505	Folsom Creek	Ocmulaee	Wilcox
030701031305	Deer Creek	Ocmulgee	Monroe
030701040107	Thompson Mill Creek-Ocmulgee River	Ocmulgee	Houston
031200020401	Upper Little Ochlockonee Creek	Ochlockonee	Colquitt
030701050102	District Hollow Branch-Gum Swamp Creek	Ocmulaee	Bleckley
030602020503	Ash Branch-Lower Black Creek	Ogeechee	Bulloch
030701060302	Watermelon Creek	Altamaha	Tattnall
030701030106	Honey Creek	Ocmulaee	Rockdale
031501010403	Goldmine Branch-Holly Creek	Coosa	Murray
030601020205	Upper Warwoman Creek	Savannah	Rabun
060200010704	Upper Little Chickamauga Creek	Tennessee	Walker
031300100403	Upper Avcocks Creek	Flint	Miller
031300080506	Bay Pole Branch-Big Slough	Flint	Mitchell
031200020704	Little Tired Creek	Ochlockonee	Grady
031300050904	Little Potato Creek	Flint	l amar
030701021403	Lotts Creek-Oconee River	Oconee	Wheeler
031300010502	Linner Tesnatee Creek	Chattahoochee	White
031300100103	Town of Crossroads-Spring Creek	Flint	Farly
030601050105	Lick Creek-Little River	Savannah	Taliaferro
030701040701	Lipper Horse Creek	Ocmulaee	Telfair
031102010502	Lower Toms Creek	Suwannee	Echols
031200020404	Big Creek	Ochlockonee	Mitchell
031101030102	Oliver Creek	Ochlockonee	Thomas
031102020604	Lower Willacoochee River	Suwannee	Berrien
031102020004	Tiger Creek-Withlacoochee River	Suwannee	
03070101010104	Linner Walnut Creek	Oconee	Hall
030602030503	Strickland Pond-Canochee Creek	Oreechee	
030701060203		Altamaha	Δnnling
000101000200		manana	Apping

WATERSHED NAME

Long Branch-Spring Creek Franks Creek **Bates Branch-Coahulla Creek** Town of Colquitt-Spring Creek **Bullpen Branch-Holly Creek Okeefenokee Swamp** Strum Bay-Canoochee Creek Little Satilla River Upper South Newport River Catfish Creek-St. Marys River Clyde Creek-Canoochee River Upper Ochwalkee Creek Middle Hog Creek **Tiger Creek** Alex Creek-Altamaha River Little Falling Creek **Ebenezer Creek** Lower Cooleewahee Creek Upper East Chickamauga Creek Lower Ulcohatchee Creek Susian Ford Creek Town Creek-Richland Creek Lower Soquee River Bluewater Creek-Turkey Creek **Turnpike Creek** Altamaha Sound-Frontal Atlantic Ocean **Redland Creek** Lower Dry Creek Gregeory Creek-Ocmulgee River Lick Creek-Salacoa Creek Turtle River Cat Creek-Seventeen Mile River Caney Branch-Satilla River Crawfish Creek-Lookout Creek Clear Creek-Kinchafoonee Creek **Cvpress Creek** Rum Creek Middle Little Ochlockonee Creek Bow Creek-Oostanaula River Middle Creek-Little Tennessee River Sitton Gulch Creek-Lookout Creek Camp Creek-South River Upper Mud Swamp Lower Stekoa Creek Lane Creek-Pumpkinvine Creek Spring Branch-Spring Creek Cabbage Creek-St. Marys River Upper Rooty Creek **Rose Creek**

DNR_BASIN Flint Suwannee Coosa Flint Coosa Suwannee Ogeechee Satilla Ogeechee Saint Mary's Ogeechee Oconee Satilla Tennessee Altamaha Ocmulgee Savannah Flint Tennessee Flint Flint Oconee Chattahoochee Oconee Flint Satilla Suwannee Flint Ocmulgee Coosa Satilla Satilla Satilla Tennessee Flint Oconee Ocmulgee Ochlockonee Coosa Tennessee Tennessee Ocmulgee Suwannee Savannah Coosa Flint Saint Mary's Oconee Satilla

Miller Lowndes Whitfield Miller Murray Charlton Liberty Wayne McIntosh Camden Bryan Laurens Bacon Catoosa Wayne Jasper Effingham Baker Whitfield Crawford Miller Greene Habersham Laurens Pike Glynn Lowndes Early Coffee Gordon Glynn Coffee Pierce Dade Webster Montgomery Monroe Colquitt Gordon Rabun Dade Rockdale Lowndes Rabun Paulding Early

Camden

Putnam

Coffee

COUNTY

HUC12	WATERSHED NAME	DNR_BASIN	COUNTY
030701020407	Wheeler Creek-Buffalo Creek	Oconee	Washington
030602040303	Vernon River	Ogeechee	Chatham
031200020703	Middle Tired Creek	Ochlockonee	Grady
030701040702	Middle Horse Creek	Ocmulgee	Telfair
060200011105	Lookout Creek	Tennessee	Dade
030701060404	Lower Doctors Creek	Altamaha	Long
030602020507	Lower Mill Creek	Ogeechee	Bryan
030601090201	Upper Runs Branch	Savannah	Effingham
030701031307	Berry Creek-Ocmulgee River	Ocmulgee	Jones
031501030205	Robbins Creek-Oostanaula River	Coosa	Gordon
030601040304	Deep Creek-Broad River	Savannah	Elbert
031300010204	Middle Soquee River	Chattahoochee	Habersham
030702011202	Rose Creek-Satilla River	Satilla	Camden
031200020706	Lower Tired Creek	Ochlockonee	Grady
031501041105	Westbrook Creek-Pumpkinvine Creek	Coosa	Paulding
031200020602	Pine Creek-Ochlockonee River	Ochlockonee	Thomas
030701050101	Reedy Creek-Gum Swamp Creek	Ocmulgee	Bleckley
031300050908	Bell Creek-Potato Creek	Flint	Upson
030701021401	Larry Creek-Oconee River	Oconee	Wheeler
030602040401	Upper North Newport River	Ogeechee	Liberty
031300031508	Wilkey Creek-Pataula Creek	Chattahoochee	Quitman
030702010604	Lower Hog Creek	Satilla	Ware
031102010501	Upper Toms Creek	Suwannee	Echols
030701011104	Little Creek-Richland Creek	Oconee	Greene
030701011502	Pearson Creek-Little River	Oconee	Putnam
030701031304	Lower Falling Creek	Ocmulgee	Jones
031102030703	Lower Piscola Creek	Suwannee	Brooks
031300020905	Upper Long Cane Creek	Chattahoochee	Troup
030702011104	Lower Buffalo Creek	Satilla	Brantley
030701011405	Upper Big Indian Creek	Oconee	Morgan
030601030406	Upper Coldwater Creek	Savannah	Hart
030601020206	Lower Warwoman Creek	Savannah	Rabun
031300010201	Headwaters Soquee River	Chattahoochee	Habersham
030701021105	Reedy Creek-Turkey Creek	Oconee	Laurens

MAP OF NRCS 2021 SWPPA FOR GEORGIA - COUNTIES



MAP OF NRCS 2021 SWPPA FOR GEORGIA - RIVER BASINS



