

Overflow Sewer Grant (OSG) Program Workplan

Division of Water Resources Tennessee Department of Environment and Conservation FFY 2020 & FFY 2021 Allotment

Purpose

The America's Water Infrastructure Act of 2018 and the Infrastructure Investment and Jobs Act amended section 221 of the Clean Water Act (CWA) to reauthorize the Sewer Overflow and Stormwater Reuse Municipal Grants Program. The OSG program is intended to address local governments' infrastructure needs for combined sewer overflows (CSO), sanitary sewer overflows (SSO), and stormwater management. The Tennessee Department of Environment and Conservation (TDEC) Division of Water Resources (DWR) will use the granted funds to further efforts to improve stormwater management and green infrastructure in the state. DWR intends to issue subgrants to eligible municipal entities for eligible projects that focus at least 50% of their activities on green infrastructure or improved stormwater management. The OSG grant and all subawards will be facilitated through the State Water Infrastructure Grants (SWIG) program.

Statutory Authority

Sec 221 Clean Water Act (33 USC 1301).

Amended by

Infrastructure Investment and Jobs Act of 2021, P.L. 117-58, Section 50204,

America's Water Infrastructure Act of 2018, P.L. 115-270, Section 4106.

EPA Strategic Plan

This workplan and grant application support EPA's Strategic Plan under Goal 1: A Cleaner, Healthier Environment and Objective 1.2: Provide for Clean and Safe Water.

CFDA#

66.447

OSG Grant Amount

SWIG is applying for both the FFY 2020 allocation and the FFY 2021 allocation:

FFY2020: \$421,000

FFY2021: \$602,000

Total Request: \$1,023,000

Cost Share

The state of Tennessee will be using state funds to cover the cost share needs for two (2) subaward recipients. The Town of Gainesboro is a small, with a population of 926, and disadvantaged community based on Tennessee's 2021 Ability To Pay Index. The Town of Bell Buckle is a rural community with a population of 405 and only 241 sewer connections. The cost-share requirements for both of these communities would place an undue burden on the system that would adversely affect rate payers. The third subaward will be granted to Metro Nashville Davidson County. Metro Nashville Davidson County will provide project funds for the required 20% match.

SWIG plans to meet the match requirement through the following:

\$170,500 - State Appropriations; TDEC will provide the match for the Town of Gainesboro and the Town of Bell Buckle with state funds

\$150,000 - Other Public Investment; Metro Nashville Davidson County will provide the funding for planning and design and partial costs for construction

\$320,500 - Total Match; this exceeds the \$255,750 that is required 20%

Administrative Costs

DWR does not plan to use any of the OSG allotment/award for administrative costs.

Project and Budget Period

01/15/2023 - 9/30/2028

DWR has three projects that meet the priority sections listed below. Each project has varying starting and end dates depending on the project. Thus, to capture the all-project completion dates, the end period will be 9/30/2025. Each project will start at the beginning of 2023.

Prioritization for Project Sections

SWIG prioritized the projects for OSG subgrants by selecting municipal projects that meet at least two of the following criteria:

- A Disadvantaged Community as defined by the state. This includes municipalities that meet the affordability criteria threshold for the designation of disadvantaged through CWSRF using the state of TN's Ability To Pay Index.
- A rural community with a population of 10,000 or less.
- Implementing a Long-Term Control Plan for SSOs
- On the CWSRF Intended Use Plan Priority Ranking List
- 50-100% Green Project as defined by EPA's Green Project Reserve

Minimum Allocation Requirements for Project Sections

Green Projects

According to CWA section 221(f)(2)(A), at least 20 percent of a state's Federal grant must go towards projects that use green infrastructure, water and energy efficiency improvements, or other environmentally innovative activities. 100% of projects selected for the OSG grant qualify as Green Project Reserve projects.

Rural Communities

According to CWA section 221(f)(2)(B), at least 25 percent of a state's Federal grant must go to carry out projects in rural communities (pop. 10,000 or less) or financially distressed communities. Of this 25 percent set aside for these communities, at least 60 percent of this set aside (or 15% of the Federal grant) must go to carry out projects in rural communities. Two-thirds, or 66%, of the projects selected for the OSG grant qualify as rural communities. Both Bell Buckle (population 405) and Gainesboro (population 926) qualify as rural.

SWIG has determined the selected projects meet the minimum allocation requirements for subgrants:

Green Project Types

(Defined in EPA's "2012 Clean Water State Revolving Fund 10% Green Project Reserve: Guidance for Determining Project Eligibility")

1. 4.2-1 and 4.2-2 Environmentally Innovative

- a. Integrated Stormwater Management Master Plan consistent with EPA's Clean Water and Drinking Water Sustainability Policy
- b. Plan should provide stormwater asset management plan, recommended site specific BMPs, and establish a pipeline of sustainability projects for improved stormwater management
- c. Town of Gainesboro

2. 1.2-2 Green Infrastructure

- a. Wet Weather Management System
- b. Bioretention and vegetative swales
- c. Metro Nashville Davidson County

3. 3.5-4 Energy Efficient

- a. Inflow and Infiltration reduction and elimination
- b. Will save energy from pumping and reduced treatment costs and are cost effective
- c. Town of Bell Buckle

Minimum Allocation Amounts

Green Project Amount: \$1,023,000; 100% of Federal Grant

Rural Community Amount: \$682,000; 66% of Federal Grant

Financially Distressed Community Amount: \$341,000; 33% of Federal Grant

Environmental Outputs and Outcomes - Subgrants

Estimated Subgrant Award Date: 12/31/2022

Estimated Project Start Date: 1/15/2023

Estimated Project End Date: 9/30/2027

Subgrantee(s)

Town of Gainesboro

Federal Award Amount: \$341,000

Cost Share; Source: \$85,250; State of Tennessee

Other Funds: \$73,750; State Appropriations

Total Project Costs: \$500,000

Metro Nashville Davidson County

Federal Award Amount: \$341,000

Cost Share; Source: \$150,000; Subgrantee funds

Other Funds: \$159,000; State Appropriations

Total Project Costs: \$650,000

Town of Bell Buckle

Federal Award Amount: \$341,000

Cost Share; Source: \$85,250; State of Tennessee

Other Funds:

- \$73,750; State Appropriations
- \$630,000 CDBG Grant
- \$188,181 CDBG Grant Cost Share
- \$587,438; ARP Non-Competitive Grant dollars from state

Total Project Costs: \$1,905,619

Environmental Output

Town of Gainesboro (Project in Progress)

- Integrated Stormwater Management Master Plan
- Water quality surveys pre, during, and post storm events
- GIS mapping of stormwater system
- Replacement of primary drainage basin stormwater culvert for improved water quality and stormwater control

Metro Nashville Davidson County (Project Complete)

- Provide stormwater runoff mitigation at site scale
- Construction of water quality swales and bioretention

- Reduce nonpoint source pollution, including heavy metals to an unnamed stream (Waters of the State and Waters of the US) on site

Town of Bell Buckle (Project Complete)

- Plans and specifications for SSO project to correct and reduce inflow and infiltration (I/I)
- I/I repair and replacement construction project for sanitary sewer system that will reduce SSOs to 303d listed Bell Buckle Creek

Environmental Outcome

Town of Gainesboro (Project in Progress)

- Integrated Stormwater Management Master Plan
- Water quality surveys pre, during, and post storm events
- GIS mapping of stormwater system
- Replacement of primary drainage basin stormwater culvert for improved water quality and stormwater control
- Improve natural stream hydrology and geomorphology by right-sizing drainage structure

Metro Nashville Davidson County (Project Complete)

- Water quality improvements that restores site hydrologic processes through sustainable landscaping and site design
- Wet weather management system will mimic natural hydrology and reduce effective imperviousness at the site scale
- Improved water quality of unnamed tributary to impaired (303d listed) stream
- Reduce nonpoint source pollution including heavy metals

Town of Bell Buckle (Project Complete)

- Improved NPDES compliance by reducing overflows to a sanitary sewer system in an impaired watershed
- Improved water quality to Bell Buckle Creek, listed for E. coli due to sanitary sewer overflows and collection system failures
- Promote energy conservation and reduce energy consumption through reducing the amount of water being pumped and treated

Prioritization

1. The Town of Gainesboro was selected because it was a rural, small, and disadvantaged community that was proposing to develop an environmentally innovative project (for the area) focused on stormwater management. Rarely do non-MS4 communities elect to create a Stormwater Management Master Plan to better understand the existing and future stormwater issues. Even less often do these small and disadvantaged communities pledge to create a plan that establishes a pipeline of sustainability projects aimed at improving water quality and managing stormwater.
2. Metro Nashville Davidson County was selected because the project was 100% green infrastructure as defined by EPA as well as having the proposed project on the CWSRF

PRL. Further, the water quality improvements would benefit a 303d listed stream. Metro Nashville was considering an SRF loan for the project, however, significant non-compliance issues with the wastewater system and improved drinking water storage facilities needs outweighed this water quality project. Metro Nashville loans through SRF for the traditional plant and pipe projects maxed out their annual debt service and they were not financially able to sustain another loan. Realizing this project would not get funded otherwise, it became a prime candidate for the OSG grant.

3. The Town of Bell Buckle has an NPDES compliance order for SSO issues that have led to the impairment of Bell Buckle Creek. This rural community has struggled to fund system improvements due the low number of sewer connections (241). Recently, this rural community met with DWR and SWIG to discuss the challenges of a loan to accomplish the SSO control plan and I/I correction work. Current CWSRF policy limits Bell Buckle's opportunity to receive additional subsidization, and therefore, the community could not afford a third SRF loan. This project became a priority to minimize the significant impact a third loan would have on ratepayers which would experience a significant hardship from the increase in rates necessary to finance the project. Plus, the project was deemed 100% green for the energy efficient activities proposed.

Project Title

- Town of Gainesboro Stormwater Management Master Plan and Improvement Project
- Metro Nashville Police Impound Lot Stormwater Retrofit
- Town of Bell Buckle SSO Control Plan Implementation and I/I Correction

Project Description

Town of Gainesboro (Project in Progress)

This project is proposed to provide topographical, GIS, and water quality surveys across the Doe Creek watershed within the town of Gainesboro. This will aid in the creation of an Integrated Stormwater Management Master Plan for Gainesboro. An area rich in history, the Town of Gainesboro was settled in the 1790s but officially established in 1817. Stormwater planning was typically an afterthought in early settlements of rural Tennessee. This is compounded by the mountainous terrain and narrow valleys where the town shares space with the streams. The topography and narrow, linear valleys force streams to compete with streets, especially in historic planning and design. The Town lacks a complete stormwater inventory, hydraulic and hydrologic analysis of the system, and asset management plan. This small and disadvantaged community lacks the resources to fund such an effort and has worked over the past few years with a local university to have students study and monitor the Doe Creek watershed. The Town of Gainesboro intends to use this funding to develop the master plan and thoroughly inventory and assess the condition of all stormwater facilities, including all natural, green, and grey infrastructure. This plan will lead to the development of a stormwater capital improvements list of projects that will provide resource protection and improve water quality while improving stormwater management. Finally, Gainesboro anticipates replacing a primary stormwater culvert in the Doe Creek drainage basin, which

will demonstrate the benefits of a stormwater management master plan by improving stormwater management and water quality in the system.

Metro Nashville Davidson County (Project Complete)

This project involves implementing Low Impact Design (LID) stormwater retrofits to the Metro police impound lot located at 1201 Freightliner Drive. The lot contains a small unnamed tributary (Determined to be Waters of the State) to the Cumberland River, which flows through the middle of the lot from south to north. The lot is nearly 100% impervious with asphalt that slopes toward the center drainage feature. Management personnel do their best to contain automotive leaks, but inevitably, some fluids and other contaminants could conceivably drain to the small stream during storm events. The goal of this stormwater retrofit project is to capture as much runoff as possible prior to entering the tributary and redirect it through a linear grass swale on both sides of the tributary. The grass swales would be routed into small basins that will detain stormwater and improve water quality by extending residence time, allowing pollutants to settle out and much of the stormwater to infiltrate into the ground

Town of Bell Buckle (Project Complete)

Bell Buckle will implement a Sanitary Sewer Overflow Control Plan and execute I/I correction projects that will include mainline, lateral, cleanout, and manhole rehabilitation. The community will follow a traditional investigation and condition assessment of collection lines, followed by a plan to eliminate or reduce I/I in key locations, create plans and specifications based on the recommendations, and facilitate construction projects aimed at arresting the I/I issues.