



**Date:** November 7, 2022

**To:** Wanda S. Page, City Manager  
**Through:** Bertha T. Johnson, Deputy City Manager  
**From:** Robert D. Morales, Senior Grants Manager  
**Subject:** American Rescue Plan Act (ARPA) Project - Green Stormwater Infrastructure Installations

### **Executive Summary**

On November 3, 2021, Ellerbee Creek Watershed Association (ECWA) submitted a proposal “Green Stormwater Infrastructure Installations” requesting \$373,759 from the American Rescue Plan Act (ARPA) funds to reduce nutrient loading in the City’s surface waters with stream enhancement and residential stormwater control measures while providing education and demonstration of effective water quality protection and stormwater mitigation practices. On May 18, 2022 the City Council approved \$261,631.30 funding for this entity. Staff has reviewed the revised proposal and recommends funding.

### **Motion**

To authorize the City Manager to execute an ARPA subrecipient grant agreement with Ellerbee Creek Watershed Association in an amount not to exceed \$261,631.30.

### **Background**

The original proposal from Ellerbee Creek Watershed Association requested \$373,759 from the ARPA funds under core category of Water, Sewer, Stormwater Infrastructure. Ellerbee Creek Watershed Association (ECWA) seeks funding to install demonstrations of green stormwater infrastructure that will provide stormwater mitigation and water quality conservation benefits while serving as community demonstrations of site-specific stormwater solutions.

ECWA will use funding to construct a stream enhancement project and residential scale rain gardens and cisterns. The stream enhancement project will rehabilitate 500 feet of heavily degraded stream in the South Ellerbe Creek Watershed using proven engineered stream enhancement techniques in order to reduce the negative impacts of stormwater on stream water quality, enhance wildlife habitat, and create an educational and public access opportunity along the South Ellerbe Creek Greenway. The residential scale stormwater control measures will cover installations for 10-15 rain gardens and rainwater harvesting cisterns in Durham to mitigate the impact of homes on the City’s stormwater infrastructure and improve surface water quality. Residents will also receive information about the long-term maintenance for installations.

### **Issues and Analysis**

The Green Stormwater Infrastructure Installations project will reduce nutrient loading in the City’s surface waters with stream enhancement and residential stormwater control measures while providing education and demonstration of effective water quality protection and stormwater mitigation practices.

ECWA projects are based on current best practices around green stormwater infrastructure to reduce nutrient loading and mitigate the volume of stormwater entering surface waters and the municipal stormwater system. The EPA currently lists rain gardens and rainwater harvesting as best practices for green stormwater infrastructure and the ECWA stream restoration project is designed by licensed engineers with an understanding of stream enhancement best practices. Durham has historically used Ellerbe Creek as a stormwater conveyance to drain rainfall from downtown Durham, which brings pollutants like nitrates, phosphates, and sediment into the stream, raises the water temperature, and increases the speed of water moving through the channel. Most of South Ellerbe Creek and its tributaries have degraded to the point of having steep, heavily eroded banks that separate community members from interacting with or even seeing the stream. This project will mitigate these issues by introducing engineered stream enhancement practices that will slow the water moving through this channel and create pockets of aquatic habitat. Slower moving water deposits sediments and other pollutants and cools down to temperatures favorable for aquatic wildlife. Some residences lack proper site-specific stormwater control such as gutters or a positive grade away from structures, which can cause water to collect underneath houses, impacting foundations and promoting mold growth. Moisture damage can impact the safety of a structure and degrade indoor air quality. Among the best ways to mitigate the effects of stormwater runoff is the use of nature-based green stormwater infrastructure solutions via the installation of a large number of dispersed storm control measures at homes and businesses in a designated area. This approach to green stormwater infrastructure aggregates to provide benefits to surface water quality and improves living situations for individuals living in homes without proper stormwater control.

Residents have provided input into both the stream enhancement and residential stormwater control measures project elements. For the Strayhorn Branch Stream Enhancement Project, between May and July 2020, 369 residents were engaged via direct mailing (275), two neighborhood association meetings (13), an online survey (62), a public Q&A session (3), and an in-person tabling event (16) held at the Pearl Mill Preserve. Results of these community engagement efforts influenced the Strayhorn Branch Stream Enhancement Project informing whether there will be public access on the site, and how that access would be set up, and other topics of future on-site programming.

Residential stormwater control measures are installed only at a homeowner's request. The leadership of the Merrick Moore and Bragtown Neighborhood Associations have been involved in this process assisting with recruitment of residents to receive installations. Past recipients' report that having a rain garden or cistern has increased their enjoyment of their home. We have seen that recipients' neighbors are likely to inquire about the installations and request them on evaluations of installations.

ECWA will be the organization administering and reporting on key indicators for this project. As an established nonprofit operating in Durham since 1999, ECWA has the capacity to administer and report on grants of this size. ECWA is part of an existing partnership to install residential stormwater control measures. Partner organizations include the City of Durham, Durham County, and Rebuilding Together of the Triangle. ECWA will be solely responsible for implementing the activities funded through ARPA funds.

### **Alternatives**

The City Council can choose not to accept the staff recommendation.

**Financial Impact**

\$261,631.30 is available for this purpose from the funding source of the ARPA federal funds. The City of Durham received \$51,881,733 in two distributions; the first distribution was received on June 1, 2021 in the amount of \$25,940,866.50; the remaining amount was received May 2022. The City will have until December 2024 to obligate the funds. Recipients have until December 2026 to spend the funds.

**Equal Business Opportunity Summary**

Due to the nature of this agenda item, a review by the Finance Department was not required.

**Contractor Workforce Diversity & Hiring Practices**

Due to the nature of this agenda item, obtaining Contractor Workforce Diversity & Hiring Practices information would not be applicable.

**Attachments**

Ellerbee Creek Watershed Association Agreement