

## **CLIMATE CHANGE, ENERGY AND ENVIRONMENT COMMISSION**

**c/o Department of Environmental Services  
2100 Clarendon Blvd., Suite 705  
Arlington, VA 22201**

November 27, 2023

Honorable Christian Dorsey  
Chair, Arlington County Board  
2100 Clarendon Blvd., Suite 300  
Arlington, VA 22201

RE: C2E2 Gulf Branch Stream Resiliency Project

Dear Chair Dorsey,

The Climate Change, Energy and Environment Commission (C2E2) recognizes the necessity of protecting sewer infrastructure in Gulf Branch as well as adhering to the EPA requirement to reduce sedimentation and pollution in the Chesapeake Bay, which is often credited through stream projects.

One of the stated goals for working on the Gulf Branch stream system is to accommodate stormwater flows and adapt to climate change. Without addressing stormwater capture and storage prior to entering the Gulf Branch stream system, it will be difficult to meet this goal, given ever increasing impervious surfaces and high-rainfall storm events.

Stormwater can be captured in all three reaches slated to be worked on in this project. This would go a long way towards ensuring the redesigned stream is not eroded by even greater stormwater loads in coming years.

In addition, the County should take a look at land in Glebe Road Park and Fort Ethan Allen Park for potential stormwater capture as well as at right of way areas that should soon be accessible due to proposed zoning changes as put forth in the Public Spaces Master Plan.

Another stated goal of this project is to reduce sediment and nutrients draining into the Chesapeake Bay. We recommend that the County engage an independent party to monitor these components, and mention this in the Gulf Branch stream system plan. By collecting sediment and nutrient data both prior to and after the stream project, the County will be able to quantify the reduction amount in these Bay pollutants, helping to inform future stream projects.

A third stated goal of the Gulf Branch stream project is to limit impacts to existing high quality habitat. The extensive access roads proposed for this project will result in the removal of around 150 trees. While some tree removal will certainly be necessary when working in the stream channel, tree loss from access roads should be limited through

consolidation of access and prioritization of working within the stream channel where possible, limiting the need for access roads. Where deemed absolutely necessary, using the smallest construction vehicles possible and ground-truthing the path to work around trees larger than 5 inches in diameter will save some trees currently slated to be removed for the construction paths. Despite the plan to plant new trees, retaining existing trees is preferred to preserve all the benefits more mature trees provide, from stormwater capture, erosion prevention, and pollution capture to wildlife habitat.

C2E2 agrees with the Park and Recreation Commission that the plan for Gulf Branch stream system should include not only nutrient and sediment monitoring, but also a maintenance agreement for both trees and added infrastructure, such as mid-sized boulders – ideally for the life of the project. This will ensure that added structures can be adjusted as needed due to damage from large stormwater surges that occur post construction which may otherwise compromise the goals of the Gulf Branch stream project.

Also, previous stream projects have shown that even substantial rocks associated with “natural channel design” strategies can move in large stormwater flow events. This necessitates the inclusion of monitoring and repair/adjustment of stream elements for the life of the project. Given the need for ongoing repair and adjustment, the County should reconsider using wooden flow velocity inhibitors – the use of which was not recommended by the County consultants due to the “temporary” nature they represent.

In summary, given the need to protect sewer infrastructure, the Gulf Branch stream project can be improved through capturing more stormwater prior to its entrance into the stream system, reducing the tree removal through in-stream work, consolidation of access, and a site-based construction path planned to work around trees larger than 5 inches in diameter, incorporating more wood-based flow velocity inhibitors, and budgeting for monitoring of sediment and nutrients prior to and post construction as well as ongoing maintenance of added in-stream structure for the life of the project.

Sincerely,



Joan McIntyre

Chair, Climate Change, Energy and Environment Commission

CC:

Members, Arlington County Board

Mark Schwartz, Arlington County Manager

Bill Eger, Chief Climate Policy and Coordination Officer

Jane Rudolph, Director, Department of Parks and Recreation

Demetra McBride, Bureau Chief, Office of Sustainability and Environmental Management

Jason Papacosma, Watershed Programs Manager