WATTS BRANCH STREAM RESTORATION

A federal and state partnership helps reduce a community's flooding and pollution problems

PROJECT GOALS

Working together, the District of Columbia Department of Energy and Environment (DOEE), the U.S. Fish and Wildlife Service (USFWS) and the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) implemented several stream restoration efforts to increase stream channel stability and improve water quality at Watts Branch, a tributary of the Anacostia River.

ENVIRONMENTAL BENEFITS

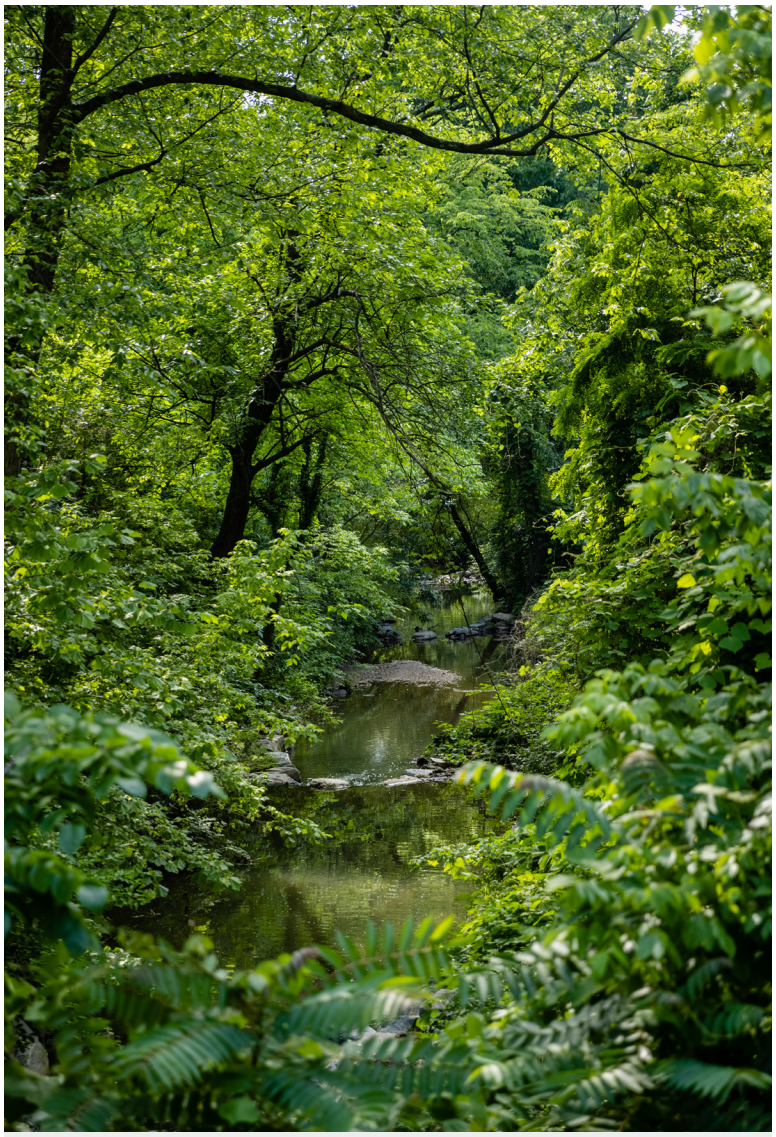
- Incorporating in-stream structures reduces high-velocity flow, which reduces damage to the stream channel and banks, while helping restore the stream to its natural state.
- Planting riparian buffers along the streambank reduces stormwater runoff and erosion in the stream corridor.
- Planting native trees decreases nutrients flowing into the stream, which ultimately reduces pollution entering the Anacostia and the Chesapeake Bay.

COMMUNITY AND ECONOMIC BENEFITS

- Reducing erosion and floodwater damage to watershed infrastructure reduces repair costs to the community.
- Planting trees along a stream, which increases soil stabilization, reduces local and downstream streambank erosion and decreases floodwater impacts.

CONSERVATION PROJECTS INSTALLED

- In-stream structures, including cross vanes, j-hooks and vane arms.
- Floodplain benches.
- Planting of native trees and vegetation.



Watts Branch flows through the length of Marvin Gaye Park in Washington, D.C., on June 4, 2021. The District of Columbia Department of Energy and the Environment (DOEE), the U.S. Fish and Wildlife Service (USFWS) and the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) implemented several stream restoration efforts to increase stream channel stability and improve water quality in Watts Branch, a tributary of the Anacostia River. (Photo by Will Parson/Chesapeake Bay Program)

CONTINUED ON REVERSE SIDE

PROJECT SUMMARY

DOEE, USFWS and NRCS completed a restoration project on the Watts Branch tributary of the Anacostia River in Washington, D.C., from Southern Avenue NE to Minnesota Avenue NE. Urbanization and stream alterations, including channelization and floodplain loss, contributed to increased stormwater volumes and flow rates. To address these challenges, the partners restored a 1.7-mile segment of the stream using a natural channel design method. Partners installed a series of in-stream structures (cross vanes, j-hooks and vane arms) that directed the high-velocity flows to the center of the stream channel, which reduced erosive forces on the streambanks. These structures also created a series of pools and riffles in the stream that provide fish habitat and gradient control. Partners also added floodplain benches that allow water to spread out and slow down during high-water events, which further protects banks from erosion. The final part of the project included the planting of thousands of trees and shrubs in the stream corridor.

Thanks to the implementation of the natural channel design and other water quality improvements, total suspended solids in Watts Branch have been reduced by approximately 51,000 pounds per year. Over the next several years, DOEE will continue monitoring Watts Branch to look for additional water quality improvements, an increase in the number and variety of macroinvertebrates and changes in the stream channel.

Dennis Chestnut stands for a portrait along Watts Branch, a tributary of the Anacostia River, in Washington, D.C., on June 17, 2021. Chestnut was instrumental in the renaming of Watts Branch Park to Marvin Gaye Park. Chestnut has devoted much of his life to promotion of Ward 7's history and upkeep.

> **"The other day, I saw an egret in this portion of Watts Branch. We could be fishing and swimming in it soon.**
>
> **- Dennis Chestnut**
> Executive Director, Groundwork Anacostia

THINGS TO CONSIDER

- Remember that maintenance is needed in the riparian buffer while the native trees become established.
- Knowledge of appropriate monitoring techniques is needed.

THE PARTNERS AND FUNDING SOURCES

- District of Columbia Department of Energy and the Environment.
- U.S. Fish and Wildlife Service.
- U.S. Department of Agriculture Natural Resources Conservation Service.
- DC Water.

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When the city of Washington D.C. had to do work on the riparian area of Watts Branch in Marvin Gaye Park they opted to use concrete to stabalize the banks.