

ASWM WATERSHED PROJECT INVENTORY DATA SHEET

Name and location of watershed: Anacostia Watershed

Size of watershed (in acres): 112,640 acres

Title of Project/Initiative: Anacostia Watershed Restoration

Setting: (please check all that apply)

- Urban (towns, cities, and suburbs with 2,500 inhabitants or more)
- Rural (anything outside the urban area)
- Inland
- Coastal

Need/Challenge Addressed (200 word limit):

The primary stressor within the Anacostia watershed is pollution from uncontrolled stormwater runoff, which erodes stream banks and washes over impervious—often contaminated—surfaces such as roofs, roads, and parking lots. The runoff carries fertilizers, animal wastes, pollutants from cars and trucks, and other stormwater pollutants that contain phosphorus and nitrogen—nutrients that cause excessive growth of algae and nuisance plants, depleting oxygen that is needed to sustain aquatic life in streams and the river. Stormwater also brings trash into the watershed—about 817 tons each year. This uncontrolled and untreated stormwater flows through the watershed into the river and its tributaries at volumes and velocities that cause stream-bank erosion and sedimentation. The Anacostia watershed contains 10 times the sediments of any other Chesapeake Bay tributary. About 85 percent of this sediment is trapped because of the river’s sluggish flow, remaining in the water for an average of 23 to 28 days. Another problem is toxic pollutants and other chemicals trapped in the unhealthy volume of sediment. This contamination affects burrowing organisms that live in the sediment and fish that feed on them.

Goals & Objectives (please include ecosystem services/values focused on):

1. Dramatically reduce the amount of pollution flowing into the Anacostia River and watershed.
2. Protect and restore the watershed’s ecological integrity— improving water quality and supporting wildlife habitat and recreational amenities
3. Improve fish passage to enable fish to migrate and spawn in the river and its tributaries.
4. Increase wetland acreage to support water filtration and the proliferation of plants and animals.
5. Expand forest cover.
6. Increase public and private participation in understanding and advocating for the health of the watershed and river.

Overall Strategy (i.e., what role do wetlands play in your project?)

Wetland creation and restoration. The watershed has lost 6,500 acres of wetlands, including 93 percent of the original 2,500 acres of tidal wetlands. The remaining wetlands are degraded and fragmented, thereby diminishing essential functions such as reducing flooding, protecting water quality, and providing habitat for plants and animals. The plan's projects will restore and recreate wetlands to move filtered water to the river in an ecologically sound manner.

Other strategies include: fish blockage removal, riparian reforestation, meadow creation, street trees, and invasive management, trash reduction, toxic remediation, parkland acquisition, stormwater retrofits and stream restoration.

Techniques Used (please check all that apply):

- Restoration (the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to former or degraded wetland.)
- Creation (the manipulation of the physical, chemical, or biological characteristics present to develop a wetland that did not previously exist on an upland or deep-water site, resulting in a gain in wetland acres.)
- Enhancement (the manipulation of the physical, chemical, or biological characteristics of a wetland (undisturbed or degraded) site to heighten, intensify, or improve specific function(s) or for a purpose such as water quality improvement, flood water retention or wildlife habitat.)
- Protection (the removal of a threat to, or preventing decline of, wetland conditions by an action in or near a wetland. Includes purchase of land or easement, repairing water control structures or fences, or structural protection such as repairing a barrier island.)

Team Members:

- **Team leaders (organizations, agencies or individuals that are responsible for overall project direction, outcomes and financing):** County Executive, Montgomery County; County Executive, Prince George's County; Mayor, District of Columbia; Governor, State of Maryland; Regional Administrator, EPA Region III; District Engineer, USACE Baltimore District; DC Dept. of Energy and Environment; Mont. Co. Dept. of Environmental Protection; PG Co. Dept. of the Environment; MDE; MDNR; NOAA; NPS;
- **Partners (organizations, agencies or individuals that are responsible for implementation of the project by agreement or contract):** Anacostia Watershed Management Committee –EPA; USACE; NOAA; NPS; GSA; PG Co.; Mont. Co.; DOEE; PGDoE; MCDEP; MDE; MDNR; M-NCPPC; MSHA; City of Takoma Park, University of MD, Beltsville Agricultural Research Center (BARC)
- **Collaborators (organizations, agencies or individuals that are involved in an advisory role):** Anacostia Watershed Community Advisory Committee; Anacostia

RiverKeeper; Anacostia Watershed Society; Alice Ferguson Foundation; Audubon Naturalist Society; Casey Trees; DC Appleseed; Earth Conservation Corps; Friends of the Earth; Montgomery Stormwater Partners

Stakeholders (organizations, agencies or individuals that are in some way impacted by the project):

Organizations listed above, as well as over 800,000 individuals who live within the watershed

Overview/history (200 word limit):

How many individual projects are currently being implemented or are planned to be implemented within this broader watershed initiative? Please describe.

There are 15 subwatersheds that are within the broader Anacostia Watershed. There are well over 3,018 candidate restoration projects that include the strategies listed above: Stormwater retrofits, stream restoration, wetland creation/restoration, fish blockage removal/modification, riparian reforestation, meadow creation, street tree and invasive management, trash reduction, toxic remediation, and parkland acquisition. 1,892 of the 3018 candidate projects fall under the stormwater retrofit category/strategy.

Is there a track record of past, completed projects in this watershed? If yes, please describe and provide available information regarding performance/effectiveness.

Past and Current progress of projects can be found by following the link provided below: [Restoration Progress Dashboard](#) and mapping services.

Start and end dates (dates can overlap – estimates are acceptable):

- Planning: 1987-2006
- Implementation: 2007-Present Day (?) – through 2025
- Monitoring: 2010-2016(?) - through 2025

Cost – Financing (estimates are acceptable):

- **Planning: & Implementation:** \$1,728,739,290, (based on the FY09 Dollar value) between 8 types of projects (Stormwater retrofits, stream restoration, wetland creation/restoration, fish blockage removal/modification, riparian reforestation, meadow creation, street tree and invasive management, trash reduction, toxic remediation, and parkland acquisition)
- **Monitoring:** In 2009, core monitoring to track goal efforts was estimated to be 2 to 3 million dollars, annually.
- **Continual (are there ongoing maintenance costs that will be required?):** Undetermined.

Resulting benefits (please list what was measured and how):

Flood Control	Water Quality	Discharge	Hydrological Conditions	Wetland Restoration	Biodiversity / Productivity	Listed Species	Economically Important Species	Pub. Access, Rec, Awareness	Other Economic Benefits	Other
X	X		X	X	X			X	Cost savings on infrastructure repairs, hiring local contractors reinvesting tax \$ locally	Habitat, Stormwater mgt, Reducing pollutants, Aesthetic improvements, property value, quality of life, reduced energy costs (cooling)

- Environmental benefits (e.g. water quality improvements, habitat protection or improvement, reduced phosphorus and nitrogen loads, etc.):**
 Enhanced wildlife habitat: The plan will benefit wildlife and fish in the watershed by improving water quality and preserving native vegetation. Cleaner water: Stormwater management controls will improve water quality by reducing the pollutants in streams coursing through the watershed near homes and businesses. Reduced trash: The plan identifies opportunities to eliminate debris through trash traps, street sweeping, and outreach and education.
- Financial or Economic Impact Benefits (e.g., avoided damage costs, increase in commercial fish revenue, increase in tourism revenue, etc.):**
 Savings on infrastructure repairs: Uncontrolled stormwater damages sewer lines and undermines streets and bridges as well. For example, WSSC spends up to \$45 million a year for repairs. Improved stormwater management will reduce these maintenance costs. Reduced flash flooding: Flooding occurs when stormwater has nowhere to go. Projects that include storage and ESD will help reduce the backups that flood streets, homes, and businesses. Green jobs: Most of the plan’s projects require hiring local contractors for design, construction, and maintenance, reinvesting tax dollars in the watershed’s economies.
- Non-Market Economic Benefits (may be monetized - e.g., increased value of recreation or aesthetics or other improvements using dollar values; or non-monetized descriptions of benefits – e.g., number of people who may benefit from improved recreation or aesthetics or other resulting improvements):** Recreational amenities: The plan’s projects will expand and restore parkland, forests, streams, and other areas for hiking, boating, and enjoying the natural world. Aesthetic enhancements: Environmental site design creates appealing streetscapes, rain gardens, and other attractive features in urban and suburban landscapes that increase property values and the quality of life.
- Other:** Heat island mitigation: The addition of shade trees, green roofs, and other features serves to insulate buildings, reducing energy use, mitigating climate change, and providing health benefits through cooling.

- **Are benefits based on actual measures or did you use a model to predict benefits?** Environmental benefits are based on a combination of monitoring and modeling. Financial or Economic Impact Benefits based on the redevelopment efforts along the tidal river areas.
- **Is there a cost-benefit analysis available? Yes or No (If yes, include a copy with your response):** No
- **If you do not have any data currently available in regard to benefits, how do you plan to measure them?** No information provided.

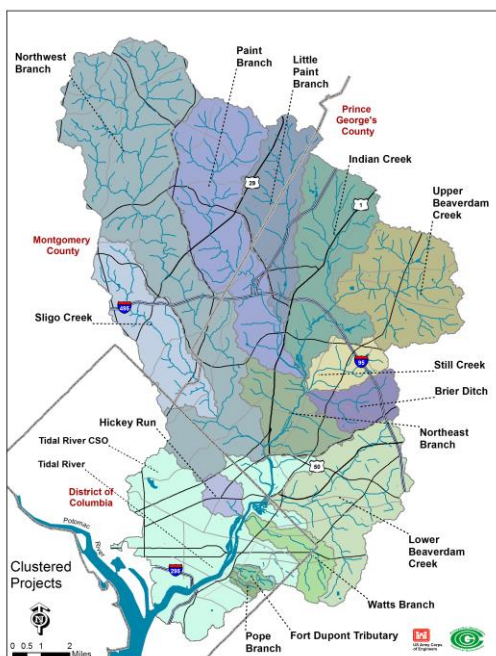
Where there any innovative designs/technologies/policy changes created to enable the project or that resulted from the project? If so, please describe:

[Executive Order 13508 Chesapeake Bay Protection and Restoration Section 203 Final Coordinated Implementation Strategy](#)

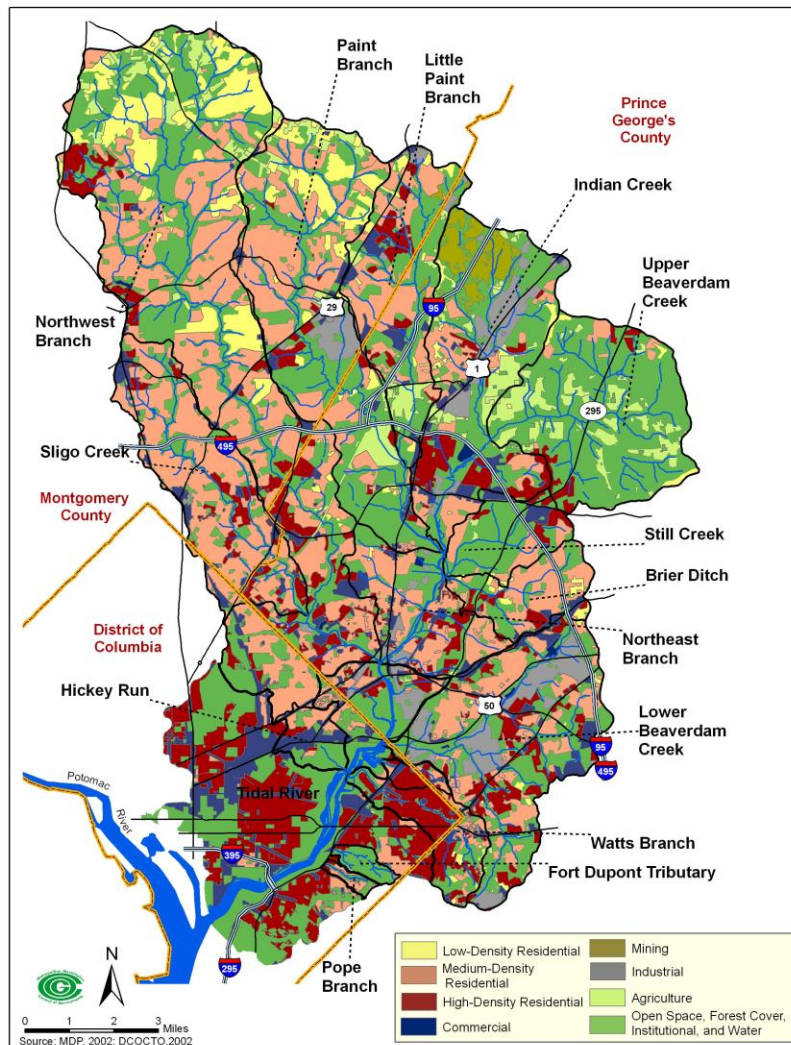
Lessons Learned:

- Manage the progress expectation of any restoration plan;
- Candidate restoration projects is not the final list; projects will drop out and new projects will be added;
- NPDES permit requirement will dictate project implementation schedule.
- Multijurisdictional watershed will require collaboration.

Do you have any images or photos to share?



Anacostia Watershed and its Subwatersheds



Land use within the Anacostia Watershed

FMI (please include contact name, organization, website, phone number and/or email address):

Metropolitan Washington Council of Governments
 Anacostia Watershed Restoration Partnership
 www.anacostia.net
 anacostia@mwkog.org
 Phone: 202-962-3200

Important Links:

http://www.anacostia.net/Restoration_Plan/download/Restoration_Overview.pdf
http://www.anacostia.net/Restoration_Plan/download/Anacostia-Report-Web-Quality.pdf