

Turning It Around:

Lessons from the Anacostia Watershed Restoration

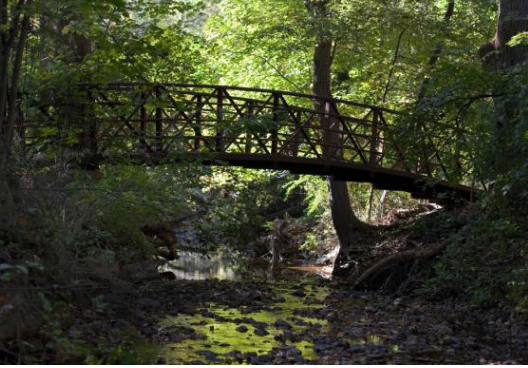


**Frank Dawson, Chairman
Steering Committee
Anacostia Watershed
Restoration Partnership**



Lessons Learned

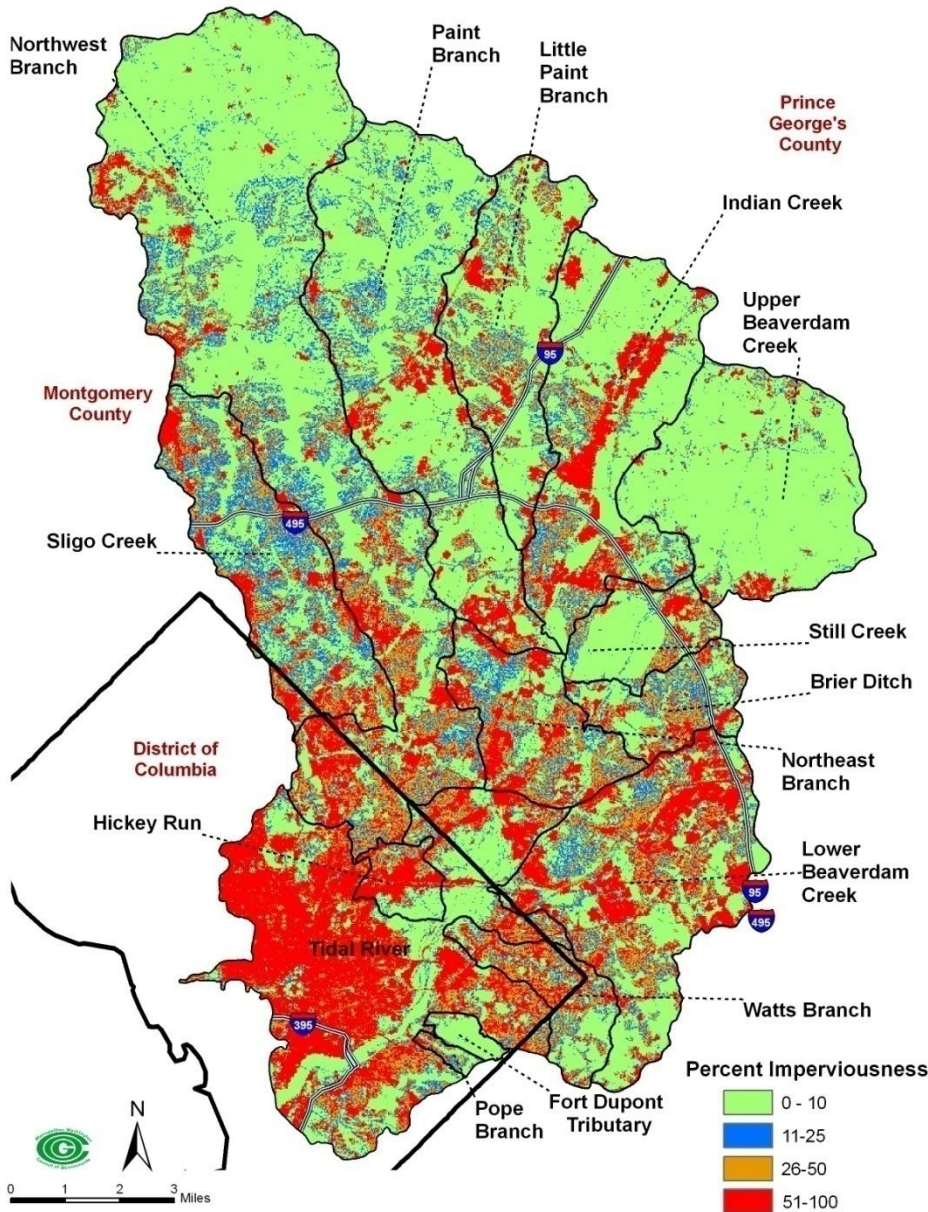
- It takes a partnership: federal, state, and local governments, elected officials, businesses and nonprofits
- A comprehensive plan helps to attract funding and stimulate legislation (bag fees, stormwater utilities, etc.)
- Regulatory drivers help a lot (MS4 permits, CSO consent decree)
- Leadership at the local level is essential



Lessons Learned

- Need to communicate better with watershed residents on why restoration is important to them (quality of life, economic benefits)
- Need to insure that restoration is representative of the demographics of the watershed (planning and implementation)
- There is hope.

Anacostia At a Glance



■ 176 square miles

■ 83% of the land area is in Maryland-17% in Washington, DC

■ Considered to be one of the most polluted rivers in the nation

■ One of the most developed in the Chesapeake: 70% developed

■ 25% impervious

Problems in the Watershed: Stormwater





Northeast Branch, Anacostia River, Before the Storm



The same place on Northeast Branch, after the storm

Stormwater erosion of streambanks



Paint Branch

Problems in the Watershed: Combined Sewer Overflows

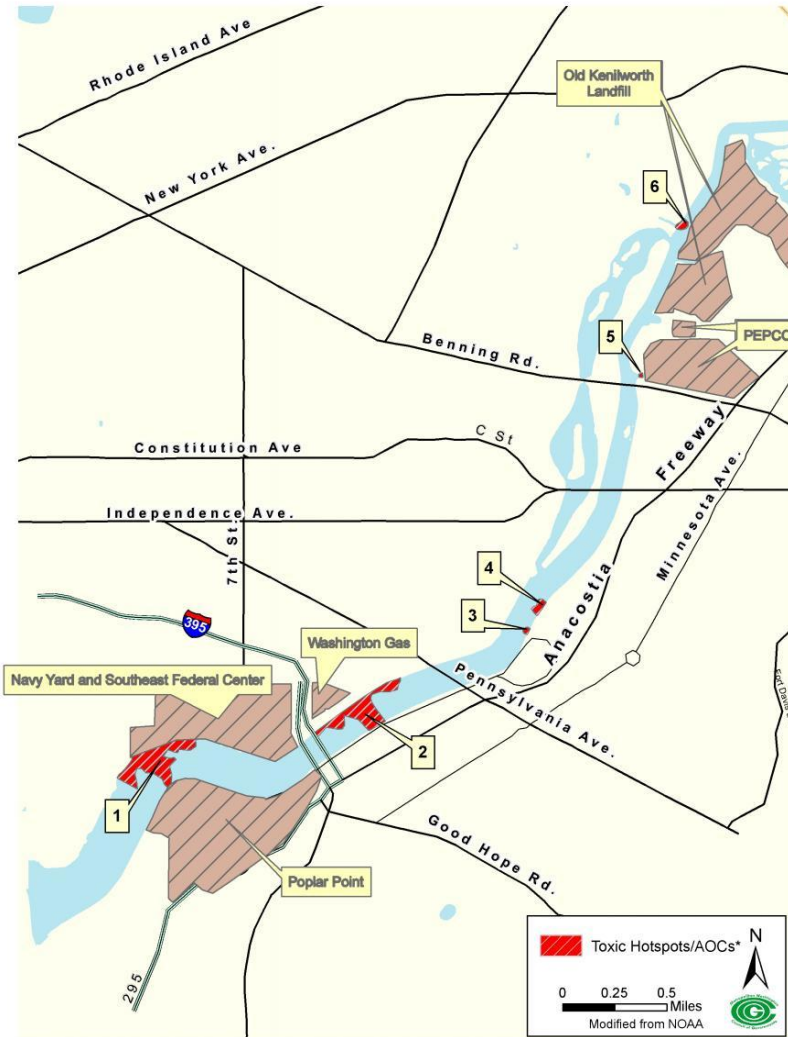


Problems in the Watershed: Trash



Problems in the Watershed:

Toxic Contamination in the Tidal River



Six contaminated sediment “hot spots” have been identified (shown in red to the left): four are adjacent to contaminated land sites:

- Navy Yard
- Kenilworth Landfill
- Poplar Point

(the three sites above are under federal control)

- Washington Gas
- Pepco



Congress Required in 2007:

- A 10-year Comprehensive Action Plan
- To be prepared by the US Army Corps of Engineers with local sponsors
- That provides for the restoration and protection of the ecological integrity of the Anacostia River and its tributaries.



Prepared in Coordination With:



The State of Maryland



The District of Columbia



Prince George's County



Montgomery County



The Metropolitan Washington Council of Governments served a major role as a coordinator of the work



Plan Recommendations- Projects

Proposed Projects by Restoration Strategy	Projects	Results
Stormwater Retrofit	1,892	10,600 acres of controlled impervious surface
Stream Restoration	342	72.5 miles of streams restored
Wetlands Restoration	116	137.4 acres of wetlands restored, created, or acquired
Fish Blockage Removal/Modification	146	41.7 miles of streams reopened for fish to migrate and spawn
Riparian Reforestation, Meadow Creation, Street Trees	152	347 acres restored, created or acquired
Trash Reduction	181	124.7 Miles of Streams Cleaned or Roads Swept
Parkland Acquisition	189	2,512.1 acres acquired

ARP and Similar Projects Implemented

Project	Concept Review	Design	Permit -ting	Construc- tion	Completed	Total
Stormwater Retrofit	30	25	1	3	22	81
Stream Restoration	-	10	0	5	10	25
Fish Blockage Removal/ Modification	-	-	1	-	1	2
Riparian Reforesta- tion, Meadow Creation, Street Trees	1	5	-	0	7	13
Trash Reduction	-	-	-	-	5	5
Wetland Creation/ Restoration	-	1	-	-	-	1
Total	31	41	2	8	45	127

Local Expenditures to Date

(Fiscal Years 10, 11 and 12)

The District of Columbia	Montgomery County	Prince George's County
\$11.4 million	\$10.1 million	\$12.0 million

Chesapeake Bay Trust Fund Expenditures on Anacostia Projects

State of Maryland's Chesapeake Bay Trust Fund	Local Match	Total
\$21.9 million	\$10.7 million	\$32.6 million










Plan Recommendations- Policies and Programs

For example:

- Stronger stormwater regulations
- Stormwater utility fees to create funding
- Homeowner and business incentives for controlling stormwater on their property
- Green street programs to make “green streets” routine
- Fees on disposable shopping bags
- Bans on coal tar sealants



Policies and Programs Adopted

Policy or Program	The District of Columbia	Montgomery County	Prince George's County
Adopt strong stormwater ordinances for development and redevelopment	Proposed		 (The strongest standards don't take effect until 2016 and 2019)
Create program of incentives for homeowners to retrofit their residences	 (RiverSmart Homes)	 (RainScapes)	(Will Start in 2013)
Adopt strong stormwater retrofit requirements (Stormwater permits issued by USEPA and MDE)			In progress
Adopt stormwater utility fees with credits that encourage retrofits of private property	In progress		In progress



Policy or Program	The District of Columbia	Montgomery County	Prince George's County
Adopt fees on disposable shopping bags			Effort to obtain authorization for such fees has failed after 3 attempts in General Assembly
Adopt ban on the use of coal tar parking lot sealants			
Improve enforcement of industrial park cleanup requirements			
Make green stormwater controls on streets and highways routine			
Provide commercial and multifamily property with incentives for retrofit	 (Green Roof Rebate and RiverSmart Communities Program)		(will start in July 2013)



Other Progress Unrelated to the Plan

- Contaminated Sediments—The District of Columbia has entered into consent decrees with Washington Gas and Pepco to begin the clean up of their sites. It is also working on an Environmental Impact Statement for cleaning up river sediments.
- Combined Sewer Overflows—DC Water has started construction of its Clean Rivers Project, the \$2.7 billion project to nearly eliminate combined sewer overflows in the District, and the project is on time and under budget.



Plan Benefits

- Reduced flooding
- Savings on infrastructure repairs
- Green jobs
- Better recreational opportunities
- Higher property values/redevelopment
- Aesthetic improvement
- Heat island mitigation
- Reduced trash cleanup costs
- Public health benefits



Quantified Benefits

- In Washington DC, the economic value of future green infrastructure retrofits has been estimated at \$37 - \$99 million, including reduced energy costs and carbon emissions and avoided stormwater management costs. (could not calculate increased property values or health benefits associated with mitigating heat or this would have been much greater)
- The restoration of just one stream in the District (Watts Branch) has been estimated to have created 45 jobs, \$2.6 million in local labor income and \$3.4 million in value added to the local D.C. metropolitan area in 2011.



***For More Information:
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*Forest Estates Green Street Project
Montgomery County*

