

Anne Arundel County's Watershed Protection & Restoration Program: MS4 Permit Update

Anne Arundel County Department of Public Works
MACo Summer Conference, August 17, 2018



The County's Regulatory Mandates

MS4 Permit



- ◆ Municipal Separate Storm Sewer System (MS4) Permit (issued by MDE).
- ◆ Issued to each county (and Baltimore City in the state) with a population over 100,000.
- ◆ 5-year cycle, current permit issued in February 2014.
- ◆ Requires treatment of 20% of the untreated impervious area in the county during the permit cycle. (5,862 acres)

TMDLs (Total Maximum Daily Loads)

- Think of it as a “recommended annual intake” of pollution required by the Clean Water Act.
- Based on models created by EPA.
- Reductions required in nitrogen, phosphorus, and sediment loads by 2025 as part of the Chesapeake Bay TMDL.

Nutrition Facts	
Serving Size 1 tsp. (0.5g)	
Servings Per Container 550	
Amount Per Serving	
Calories 0	
	% Daily Value*
Total Fat 0g	0%
Sodium 0mg	0%
Total Carbohydrate less than 1g	0%
Protein 0g	
Not a significant source of calories from fat, saturated fat, trans fat, cholesterol, dietary fiber, sugars, vitamin A, vitamin C, calcium and iron.	
*Percent Daily Values are based on a 2,000 calorie diet.	

INGREDIENTS: Nitrogen, Phosphorus, & Sediment

Current Status of WPRP-Funded Projects

- ◆ 475+ Culvert & Storm Drain projects completed.
- ◆ 99+ Water Quality Improvement Projects completed thus far in permit term.
- ◆ 174 additional projects underway.
- ◆ Approximately \$250M authorized for clean water projects.
- ◆ Includes stormwater retrofits, outfall restoration, as well as stream and wetland restoration.

CAPE ST. CLAIRE OUTFALL – MAGOTHY RIVER WATERSHED





ERE BIORETENTION – SOUTH RIVER WATERSHED

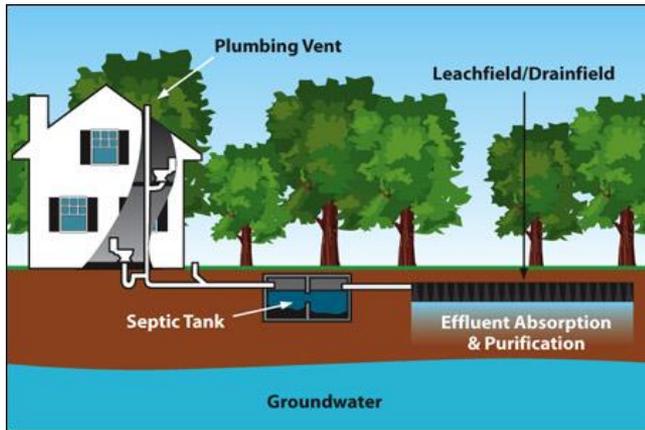




LOWER COWHIDE BRANCH RESTORATION – SEVERN WATERSHED

Devised Additional Ways to Engage the Private Sector

- Created a \$5 million “pay for performance” project in the FY17 budget, placed an additional \$5 million in FY18. Received \$4 million in FY19.
- Sought “turnkey,” permanently protected (e.g., perpetually eased, transferred to County ownership) practices that the County can count towards MS4/TMDL compliance.
- Thus far have locked in the treatment of 300 impervious acres for \$5.5 million.



Anne Arundel County Restoration Grant Program

- Open to non-profit partners
- Administered through CBT (www.cbtrust.org)
- Through 4 years, we have awarded approximately \$3.1 million in grants to local watershed organizations and leveraged approximately \$3.4 million in additional, outside dollars.



Avalon Shores Fire Department Stormwater Wetland
 Awardee: West/Rhode Riverkeeper



Annapolis Harbour Center Stream Restoration
 Awardee: South River Federation



Randell Road Stormwater Mitigation
 Awardee: Round Bay Community Association



Camp Woodlands Pre-Treatment Retrofit
 Awardee: South River Federation



Hillsmere Bioretention Expansion—Pool
 Awardee: South River Federation

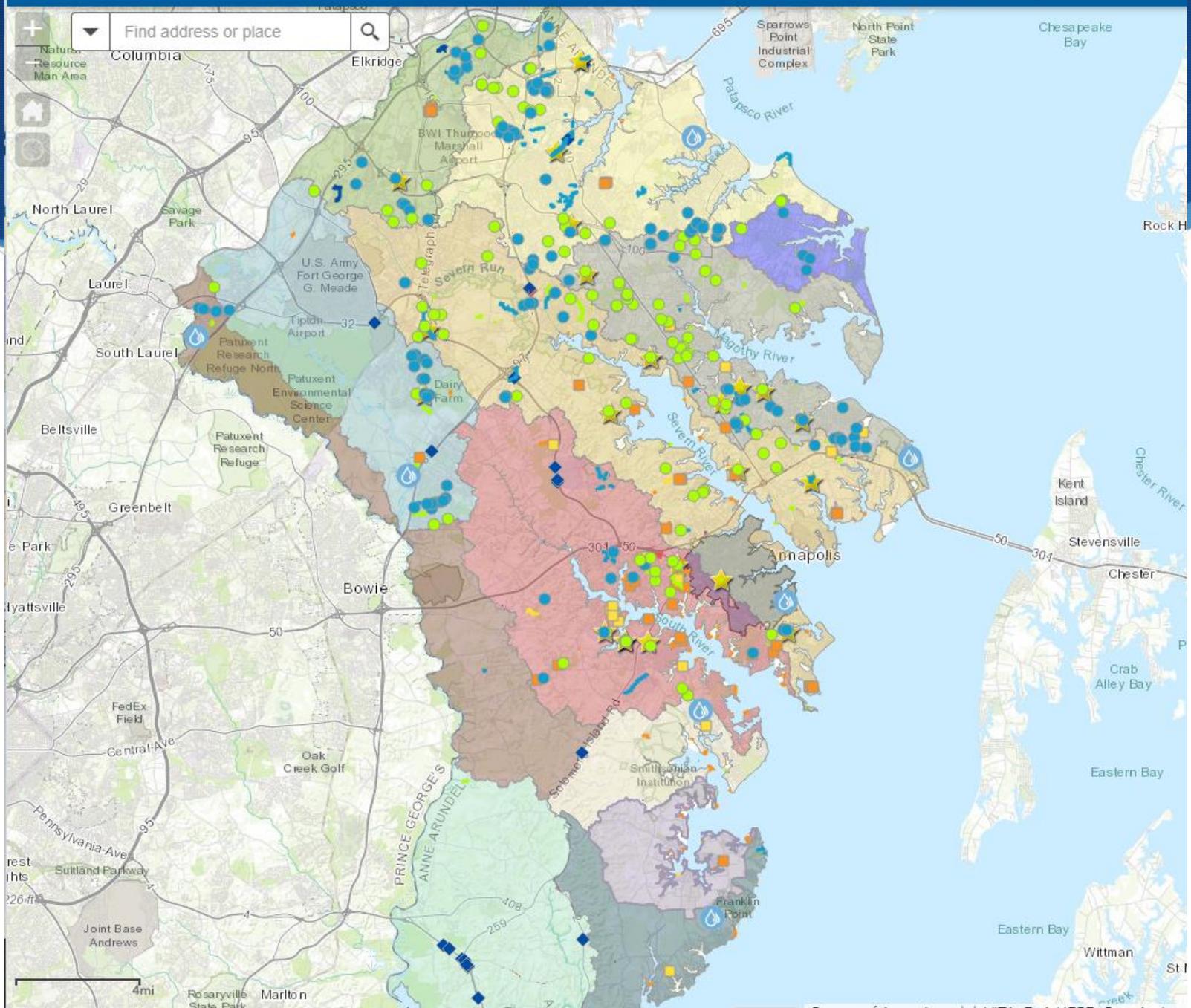


Bonaparte Road Bioswale and CPO
 Awardee: Herald Harbor Citizens Association



Hillsmere Bioretention Expansion—Kayak Launch
 Awardee: South River Federation



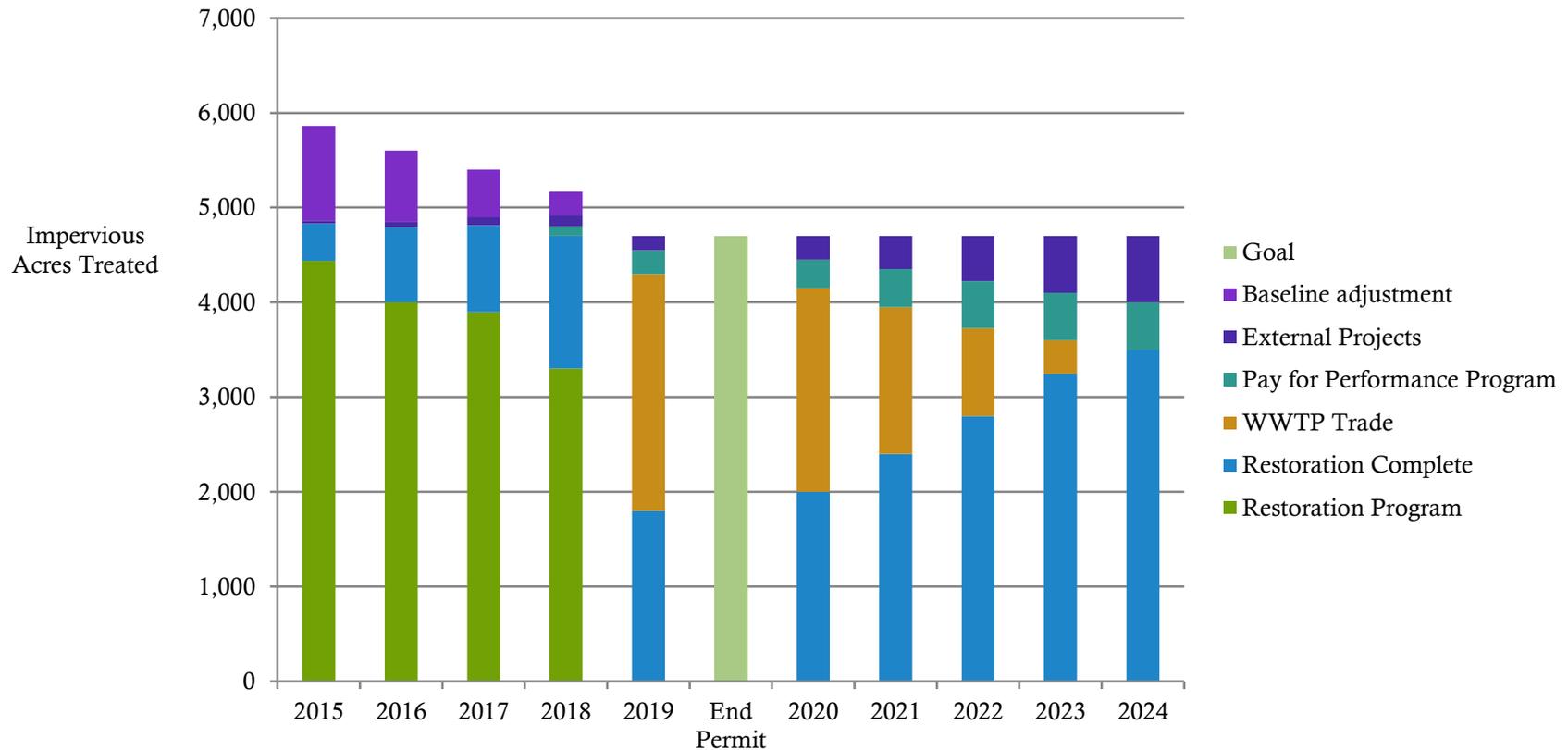


Upgrade of the County's 7 Water Reclamation Facilities to ENR



At a cost of approximately \$252 million, Anne Arundel County completed the upgrade of all its wastewater treatment plants to enhanced nutrient removal in mid-2017.

A Path to Compliance



Questions?

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Anne Arundel County Watershed
Protection & Restoration Program

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