


Anne Arundel County
WATERSHED
Protection & Restoration
P R O G R A M



**INNOVATIVE PROGRAM
MANAGEMENT 2.0**



Healing Our Rivers

Anne Arundel County

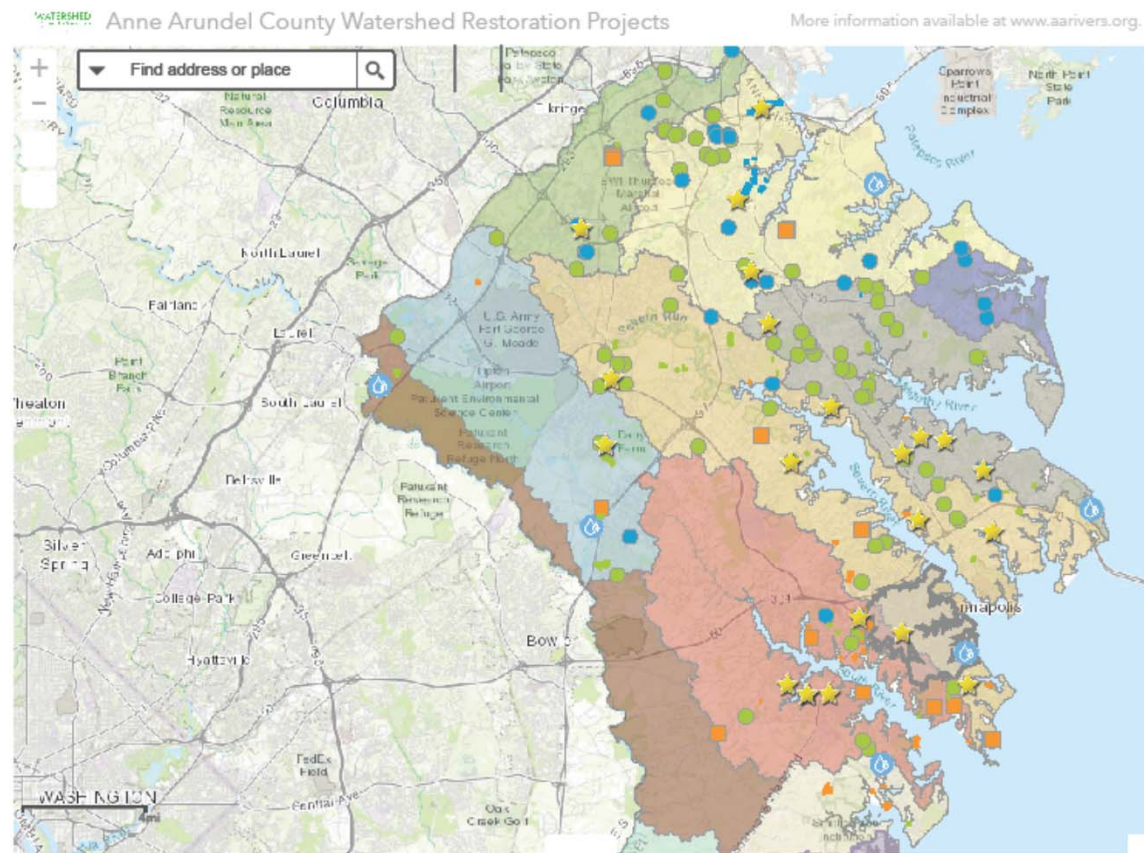
COMPLEX PARAMETERS IMPACTING PROGRAMING SOLUTIONS

- ❑ Over 500 Miles of Shoreline
- ❑ 1,700 Miles of Streams
- ❑ Twelve Primary Watersheds
- ❑ 14,000 plus BMPs
- ❑ Coastal Plain Soil Conditions
- ❑ Differing Population Densities North to South
- ❑ Project Map Recently Developed



PROJECT MAP – New!

You can access the interactive version of this map through our aarivers.org website



Anne Arundel County

WHERE WE STARTED

- ▣ WIPs in process
- ▣ Programed (from WIPs)
 - 547 Stream Reaches
 - 1,842 Outfalls
 - 418 Ponds
- ▣ Staff of 7
- ▣ General Fund Budget

WHERE WE ARE TO DATE

- ▣ Contracted \$263 mil
 - 44 Streams (31.2 mi)
 - 69 Outfalls (28K LF)
 - 136 BMPs
- ▣ Staff of 35
- ▣ Last WIP being finalized
- ▣ SW Utility Fee



KNOWING WHAT YOU NEED & HOW TO GET IT

TMDL GOALS - 2025

EOS Urban Stormwater Nitrogen*
723,795 ➔ 559,302 ➔ 449,641

*Source MAST June 2012

MS4 PPRIMARY GOAL - 2019

20% reduction of 29,311 impervious
acres, a 5,862 acre restoration goal

CIP Program STRATEGY Overview

- Clear and well communicated priorities to team
- Necessary changes to purchasing
- Staffing needs and organization
- Improving project schedules
- Contracting standardization
- Identification of impediments
- Maximizing partnerships

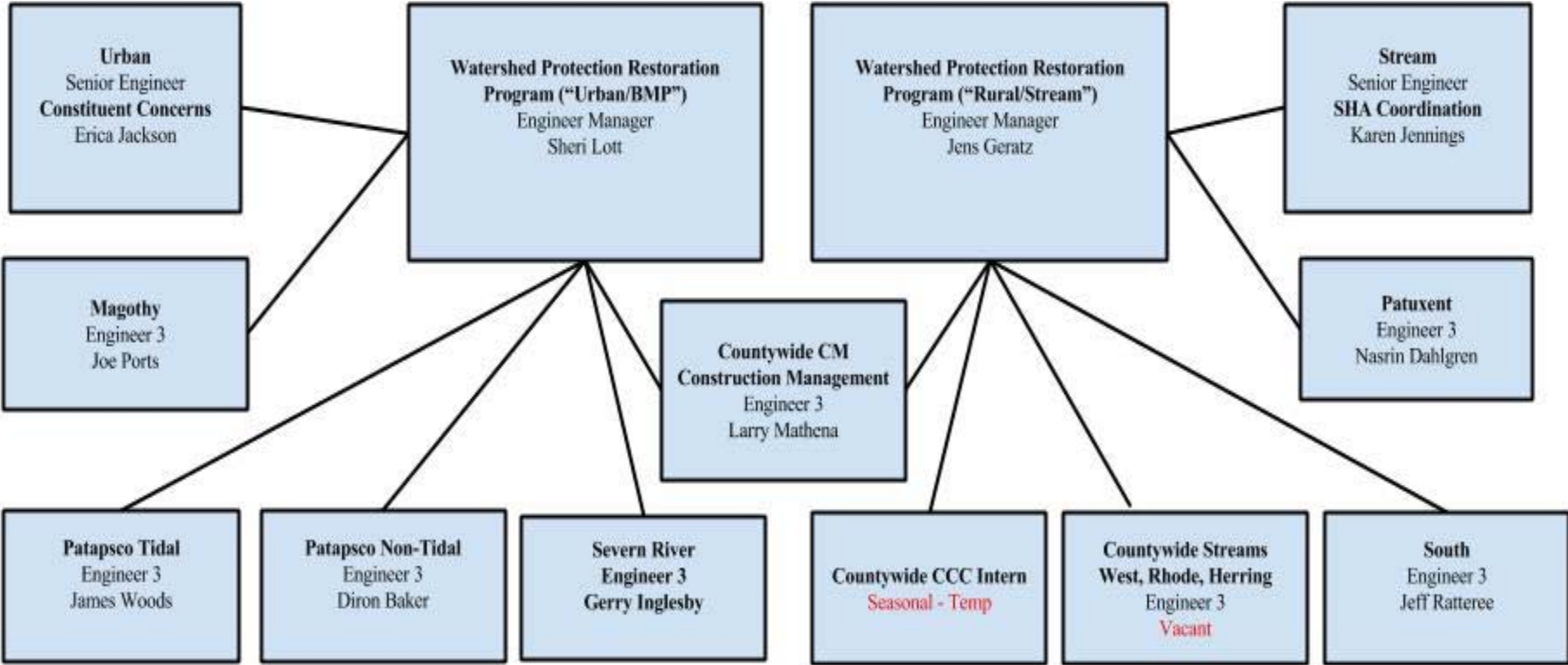
Current Department PRIORITIES

- How close can we get to the MS4 target by 2019?
- Meeting upland treatment goals to the MEP
 - ▣ When is ESD cost effective
 - ▣ 50/50 Split - Streams to Upland BMPs
 - Streams programed treat 2,973 acres IA
 - BMPs account for 3,015 acres of IA treated
- Develop a department wide tracking database
- Finalize staff hiring – Still looking for a 6-8 year stream restoration project manager to work CW

Fine Tuning PURCHASING Options

- Increase limits and capacity for “small project” construction
- Having to sole source for innovation
- Need blanket order for geotech
- Contracting options
 - ▣ A/E & CM/I - Task Order, Open End, Short List
 - ▣ Construction – WRC and Bid (no preferred contractor list)
- Task Orders: Engineering and CM/I
 - ▣ The definition of a Task Order Contract
 - ▣ Write in an exit option
 - ▣ Future goal to expand the firm limits
 - ▣ Next TO have some firms County-wide others by Watershed

WPRP Restoration Program Organizational Chart



WPRP TEAM APPROACH

- ❑ Ecological Assessment and Evaluation
- ❑ Watershed Assessment and Planning
- ❑ Restoration (Capital Program)

Improving project SCHEDULES

- Key is to keep things moving
- Color coding and tracking approval folders
- Streamline – continually look for process improvement
- MS Project templates to standardize project schedules
- Minimize workload impact of reviews
 - ▣ Creating a log for review document tracking
 - ▣ PM check set helps minimize comments
 - ▣ Assigning one technical reviewer – reviews first
 - ▣ Comment sheet on Google share drive so we all aren't writing the same comments

Early Identification of IMPEDIMENTS

- ❑ PM Workload
- ❑ Private Property Owner Buy-In
- ❑ Hydraulic Take
- ❑ CLOMAR/LOMAR
- ❑ Site Contaminants
- ❑ Earthwork Costs
- ❑ Infrastructure Condition
- ❑ Modeling Accuracy

PARTNERING – Can't do it alone

- Anne Arundel County Board of Education, Rec and Parks & Libraries
- Anne Arundel Comm. College
- Arlington Echo
- Chesapeake Bay Trust
- Center for Watershed Protection
- City of Annapolis
- Department of Natural Resources
- Fort Meade
- HOAs Countywide
- MDTA – MOU & Project Partnership
- MTA - MOU
- Magothy River Association
- Maryland Department of the Environment
- Restore Rock Creek
- SERC
- SHA – MOU & Project Partnerships
- South River Federation
- Severn Riverkeeper
- Severn River Commission
- Severn River Association
- St. Johns Development Group
- University of Maryland
- Watershed Stewards Academy
- West/Rhode Riverkeepers

STANDARDIZATION – How We Work

□ The Process

- Community buy-in
- Contract Initiation
- Proposals – TO, SL & OE
- Procurement
- 10 Percent Concept Memo
- 30-60-90 Check Sets
- CM – In or Out?
- Construct at 60 or Bid Set



STANDARDIZATION – Documents

□ Forms & Submittals

▣ Scope of Work

Templates

- BMPs
- Outfalls (SPSCs)
- Streams (Small & Large)
- CM/I

▣ Plan Set Checklists

- BMPs & Outfalls
- Streams

□ Reports – SW & WSAR

□ A/E Communication

□ ROW (Start Earlier)

**County
Templates
Online**

DESIGN – Adaption of County Process

- Programing done internally
 - ▣ Directive and collaborative approach to A/Es
 - ▣ Design preferences managed through Scopes
- Community buy-in before Contracting
- The 10% Concept Memo – a new approach
 - ▣ No design alternatives after memo acceptance
 - ▣ Minimizes post 30% Change Orders
- A Check Set for the Project Manager's review
- The Monday Memo

PERMITTING

- Met with USACE & MDE
 - ▣ Volume – Provided project list to USACE
 - ▣ Timing – Jurisdictional, stream closure impacts
 - ▣ Type of Permit – Ephemeral vs. All Else & TMDL RGP I or II
- Streams Quarterly Permit Meeting with MDE & USACE
- Pre and Post Monitoring Innovation
- Where things have and will continue to go awry
 - ▣ Hydraulic “take” Property Owner Issues
 - ▣ Construction

WPRP Challenges

- ❑ Existing processes were not adequate for new workload and staff
- ❑ New program interactions with existing departments
- ❑ Workload, burnout, and maintaining quality
- ❑ Legacy expectations in DPW and contracts underway
- ❑ Evolving MDE reporting requirements
- ❑ Continued progress in streamlining restoration; processes, permitting, and construction

STANDARDIZATION

HOW TO GET IT ALL BUILT BY 2025

**A NEW SPSC MANUAL
COMING IN 2018!**



Cinnamon Lane SPSC

Outfall Restoration

Annapolis Landing – Pond with 65 ac DA



Stream Restoration



MAXIMIZING BIOLOGICAL UPLIFT
IN DIVIDING CREEK – AACC CAMPUS

Questions and Discussion

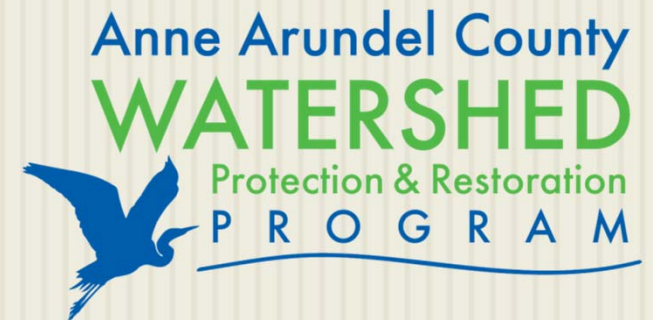
Sheri Lott, PE
Engineer Manager
Watershed Protection
& Restoration Program
410-222-7524

Social Media Information:

WWW.AARIVERS.ORG

<https://www.facebook.com/aawprp>

<https://twitter.com/AAWPRP>



Available Documents Location:

<http://www.aacounty.org/departments/public-works/wprp/restoration/>