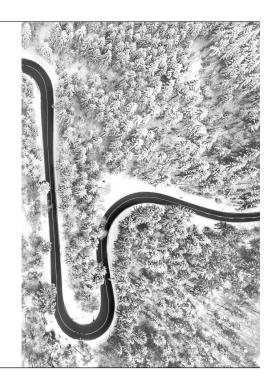
West Virginia Highways & Watersheds - Advancing Tree Canopy Restoration



Green Streets, Green Jobs, Green Towns (G3) Grant

Thank you, Lee Anna. I am pleased to represent the G3 grant recipient the Warm Springs Watershed Association to talk about their tree canopy restoration efforts.

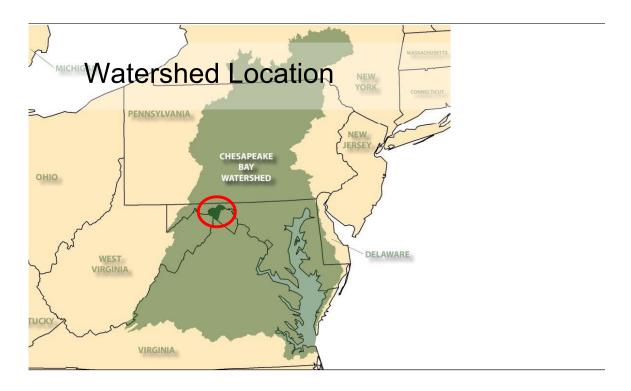






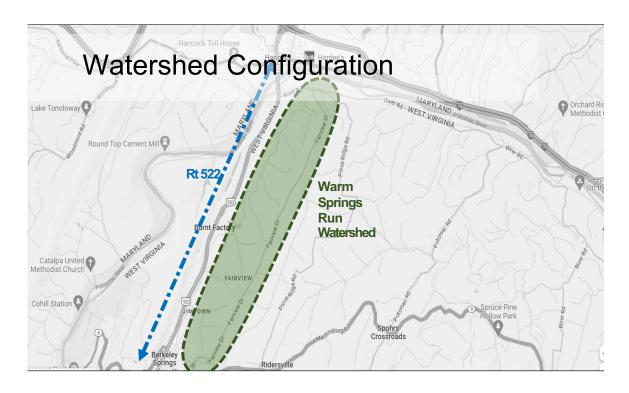
This is funded by the US EPA, the West Virginia Department of Environmental Protection, and the Chesapeake Bay Trust.

My company Designgreen is the Watershed's engineering consultant, and I will be sharing the project's goals, approach and outcomes.



First some context for the project: The Warm Springs Run Watershed is in the middle western section of the Chesapeake Bay.

It is an 11.8-mile stream in Morgan County, WV, that discharges to the Potomac River.



It runs parallel to the existing US Rt 522. This is a narrow system draining almost 10,000 acres, with steep slopes and shallow soils.



Sections of the Run closest to its confluence with the Potomac River remain relatively undisturbed.



The upper watershed sections are increasingly impervious, making the system more prone to flash flooding.

Warm Springs Run – Spa and History

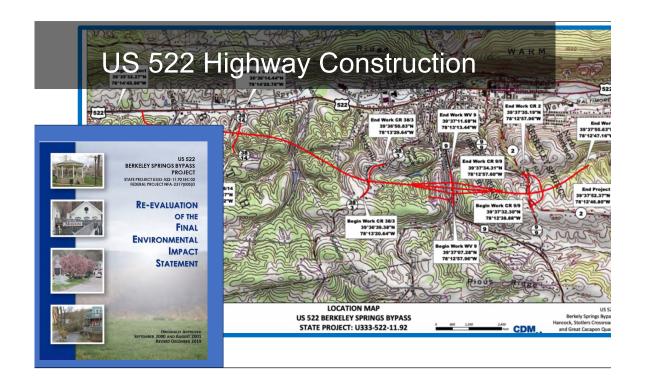




The Warm Springs Run conveys thermal waters valued for their history and therapeutic uses. While the springs have been protected, the run has been impacted by in the past by sewage and industry waste and now by urbanization and roadways.



The Warm Springs Watershed Association has been actively working for 16 years to restore and protect these waters. The Association's studies, plans and actions span tree planting, invasive species management, green infrastructure strategies, water quality monitoring and more.



The West Virginia Department of Highways (DOH) has a major highway improvement project is underway that is expanding the existing US 522 from a 2 to 4 lane roadway.

The reconfiguration aims to alleviate growing traffic congestion and improve safety. It is having a major impact on nearly a quarter of the stream length including clear cutting 240 acres of vegetation and trees.

"Proposal – Project Goals

The WSWA seeks to restore the tree canopy to counter changes caused by the Berkeley Springs Bypass construction. The expressway... has resulted in drastic... clear-cuts. WSAW envisions the plan for tree canopy restoration will include:

- 1. Steps to complete tree canopy restoration
- 2. Budget and funding strategy
- 3. Community engagement plan
- 4. Long term maintenance strategy

The goal of this project is to change WVDOH policy so that future transportation corridor projects include the design and construction costs for tree and shrub planting.

The Watershed Association framed their grant as a request for a charrette style workshop to engage the decision makers at West Virginia Department of Highways in a conversation about how to both restore this project's tree canopy and how to effect policy to ensure future major roadworks minimize clearing and maximize restoration as part of their underlying design and construction scopes.

Looking for Common Ground and Work-Arounds...



As the consultant, we invested time with the Watershed Association and their partners to better understand how they would define success in this workshop. We found strong positive relationships with DEP and a working relationship with DOH regional officers, the project contractor, and the site inspectors.

As we worked through the historic and current site data and construction documentation, we whittled down a large invite list from 35 to 15 to focus less on the broad community engagement and more on creating a positive collaborative non-confrontational conversation with key DOH central office decision makers.



Explore transportation corridor policies and practices to identify ideas and opportunities for better integration of woody plantings in project scopes.

To avoid putting any of the participants in a defensive position, the charrette objective was re-worded to remove statements with specific desired outcome.



Tree Canopy Restoration to Land Disturbed by Berkeley Springs Bypass Construction

Green Streets, Green Jobs, Green Towns

The invitation was framed as an open-ended discussion. Key questions were asked in advance, and responses were collected in advance, and this Q&A influenced the creation of the activities. Activities were structured to allow participants to use large format plans in small groups to illustrate and locate opportunities and challenges.

Agenda

INTRODUCTIONS

Welcome and Who is in the Room?

CHARRETTE ACTIVITIES

#1: Revegetation

Mapping #2:

Redefine the

Roadway #3:

Rethinking Policy

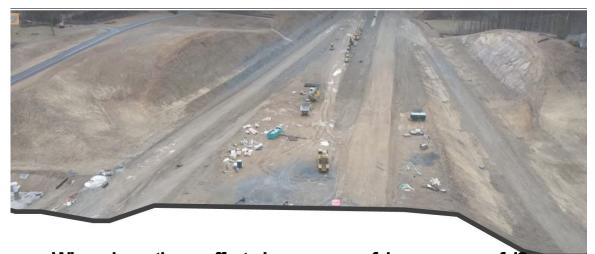
NEXT STEPS

Design Standards, Clearing Guidelines, Maintenance, Work Around Commitments, Funding Strategies, Future Training and Workshop Needs.

The charrette had three group activities. Each asked a series of questions using a small section of the overall project. Participants were asked to constrain clearing, define where revegetation was needed, to think about the roadway cross section pavement diets and policy change opportunities



The groups of 4-5 people were structured to ensure each had a mix of organizations and provided each group with a different section of the roadway project. Group participants were remixed with each activity to keep group dynamics fresh.



Where have these efforts been successful or unsuccessful?

Identify areas where new revegetation efforts should be made.

Activity used different perspective – mixing plan views and cross-sections.



For each activity, each group reported back to the whole for general discovery and discussion.





Keeping a Record

We recorded big ideas as they were discussed on large flip charts.

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What is Needed to Bridge the Divide?

Guidance: Local, County, State, Federal Is there an alignment that needs to be evaluated?

Tree Maintenance: Does WVDOH maintain trees? Is tree maintenance contracted or conducted

internally?

Compliance: How does DEP view tree planting?

Could MS4/WIP/TMDL or other compliance obligation bring WVDOH to the table?

We had a whole room discussion about where it was and was not possible to bridge the divides between environmental goals and highway construction process.



Leadership from DOH, DEP, and the Warm Springs Watershed Association left the event on a positive note with informal commitments on all sides to continue the revegetation discussion.

Follow up from DOH determined tree planting within the WVDOH right-of-way will be allowed and an agreement is being drafted between the DOH and tree planting advocates on specifics.

Safety and maintenance are DOH's concerns, and these will define planting setbacks and limit tree size in highway clear zones. More generally, DOH is open to exploring using pollinator seed mixes and planting perennial plots throughout. DEP and the Watershed Association are exploring tree planting funding options.



LONGTERM STRATEGY

MAINTENANCE RESOURCES?

Potential CBLP Crews Training

WHAT IS NEGOTIABLE?

The role of State, County, Other

COLLABORATIONS?

DOH and Watershed Stewards collaboration

The Watershed Association pointed out the federal DOT has policies to encourages landscaping highways with native plants and offers technical resources and financial assistance. Despite this many states are leaving revegetation up to contractors who select the cheapest vegetative mix unfavorable to pollinators and detrimental to improving landscape resilience.

They want to see

Local input on revegetation plans

Plant selection support by the Watershed Association Seed mix approval by WVDEP - not the project contractor

Final revegetation contract separate from main project contract to close out new road construction projects.

