

REGIONAL BLUE-GREEN INFRASTRUCTURE COMMUNITY ENGAGEMENT AND PLANNING PROJECT

Flood Ready Communities: Regional Open House

MWCOG, ICF, CHPlanning, Straughan Environmental Inc.

Thursday, May 22, 2025
4:30 PM - 7:30 PM

Key Partners



MWCOG (Metropolitan Washington Council of Governments)



DC HSEMA (District of Columbia's Homeland Security and Emergency Management Agency)



Prince George's County Department of Environment (DoE)



DC DOEE (Department of Energy & Environment)



Metropolitan Washington
Council of Governments

Consultants



ICF



Straughan Environmental Inc.



CHPlanning

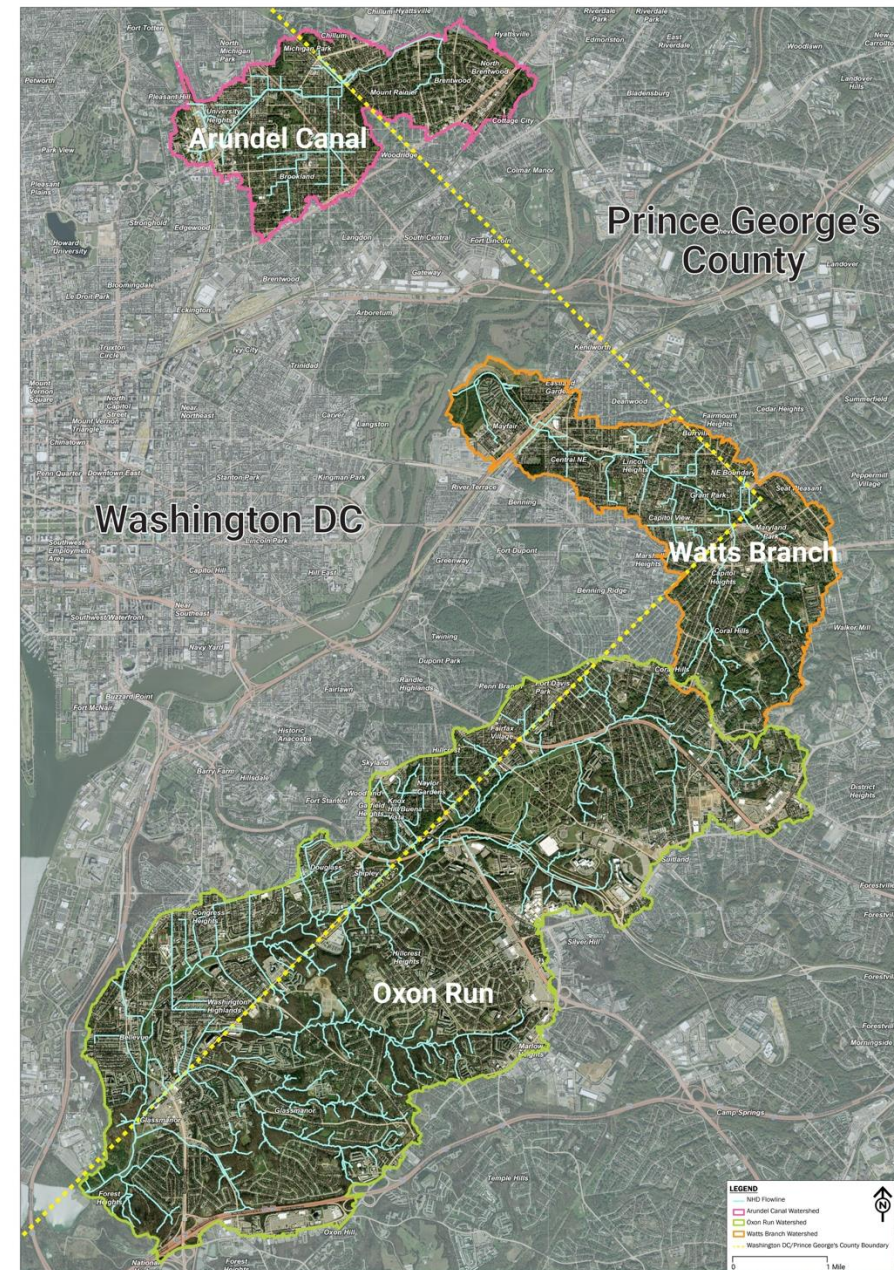


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What and Where

The **Regional Blue-Green Infrastructure (BGI) Community Engagement and Planning Project** is a collaborative planning effort to increase resilience in three areas, or **subwatersheds**, spanning the District of Columbia and Prince George's County to flooding.

These subwatersheds are **Arundel Canal**, **Watts Branch**, and **Oxon Run**.



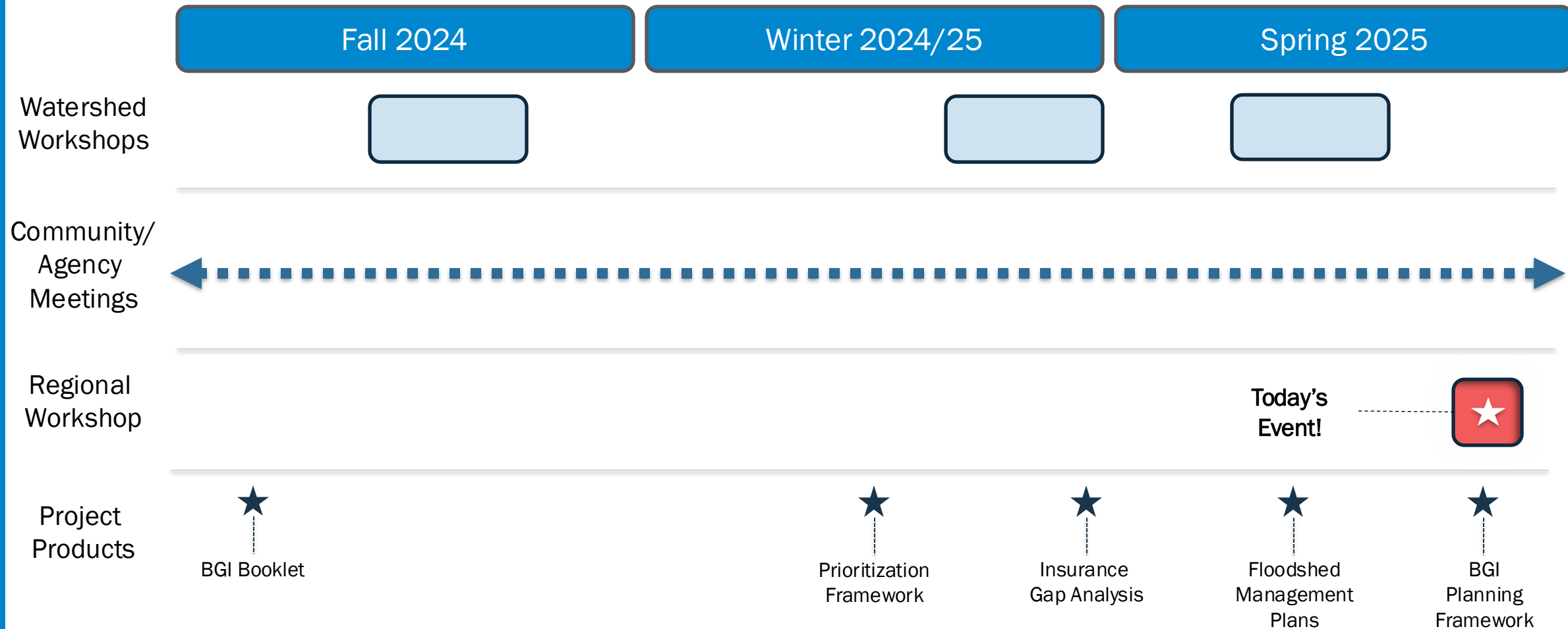
Why a Regional Approach?

Collaborating with neighboring jurisdictions to develop flood management plans, share resources and expertise, and create integrated solutions that address other climate hazards and community needs.

A ***regional approach*** considers the entire watershed or floodplain, addressing upstream and downstream impacts.



Project Process and Engagement Highlights



Why You're Here – Collaboration and Implementation

We want to learn from you and for you to learn from each other.

You bring valuable experience, local knowledge, and connections across neighborhoods, networks, and watersheds.

You're here to collaborate with us on a strategy for implementation.

This is a working session to explore how Blue-Green Infrastructure (BGI) projects can move forward with your organizations, agencies, and communities as key partners.

You're here to meet, interact, and form partnerships.

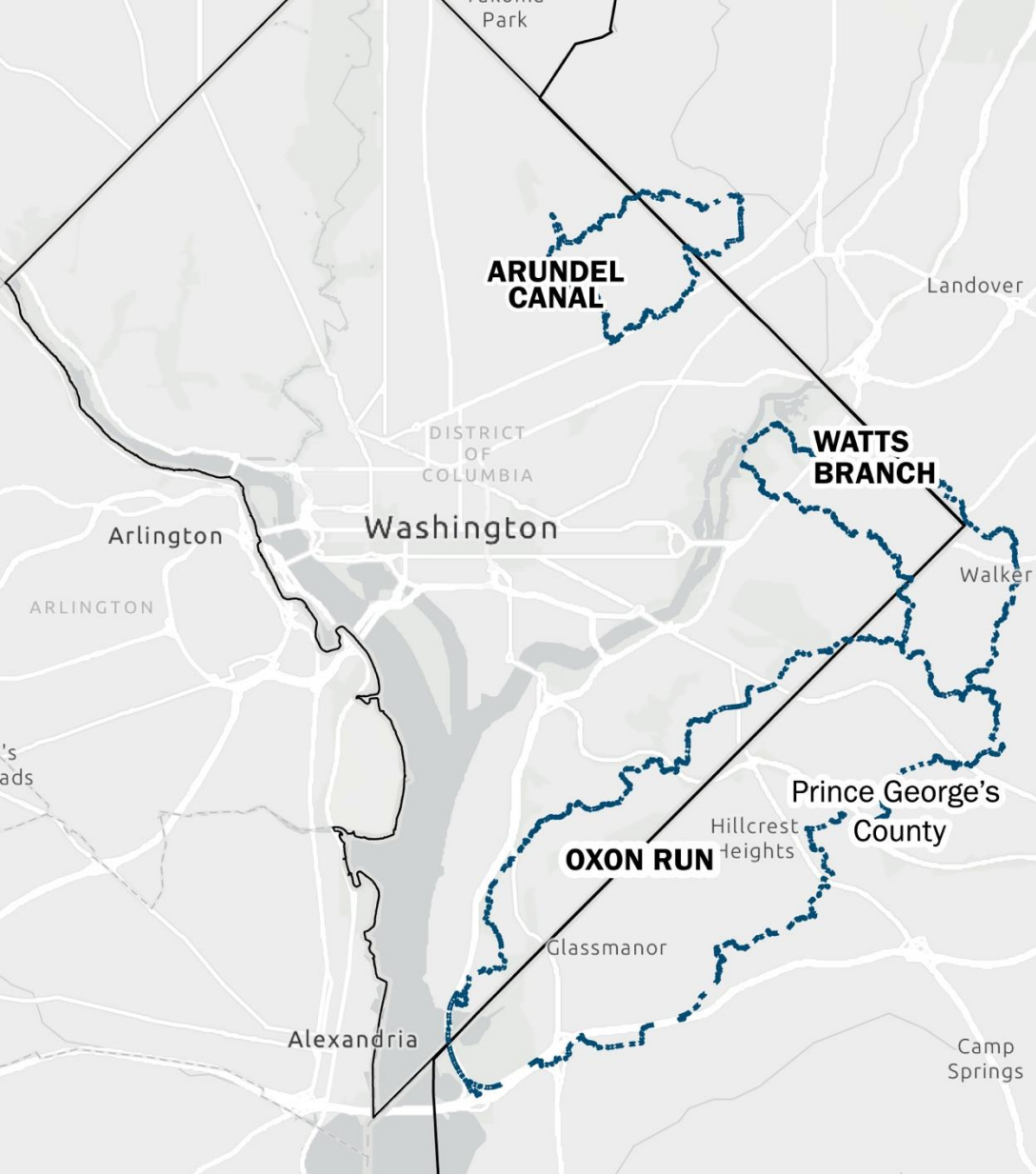
The room is full of changemakers. Use this space to connect with others who are working toward community resilience and equitable climate solutions.

Our commitment: Partnership over assumptions.

This process is grounded in collaboration, not top-down decision-making. Your continued involvement will determine what happens next.

Agenda

- Welcome & Open House Overview
Welcome, project overview, and how to navigate the evening
- Study Outputs – What are they, and how do I use them?
- Panel Discussions
- Closing Remarks

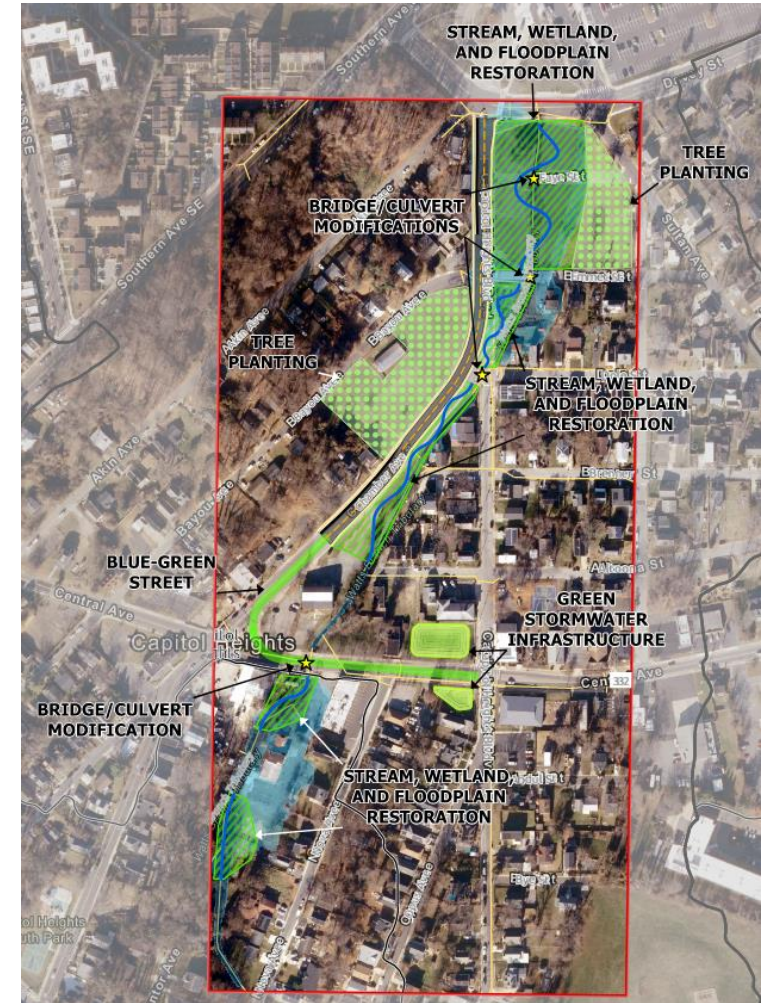


Study Outputs

Summary of Outputs – What do we get?

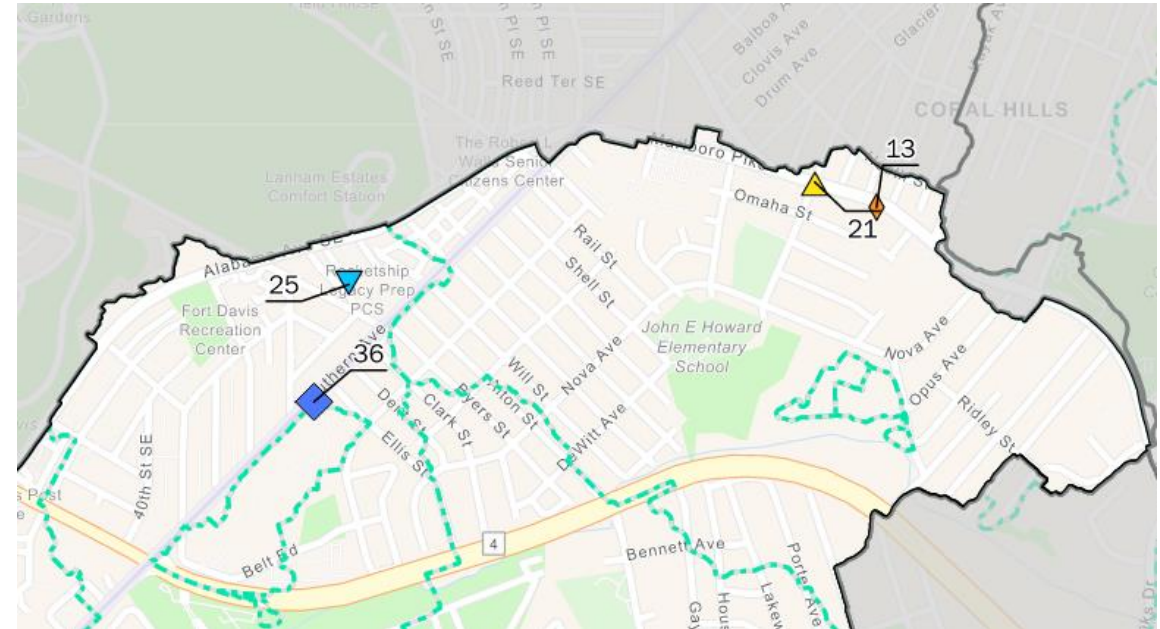
Final Report:

- Ongoing Projects Mapping
- Flood Risk Identification Mapping
- Repeatable Process to Identify BGI Opportunities
- Comprehensive BGI Opportunities Mapping
- Focus Area Prioritization Tool
- Community Engagement Guide and Tools
- Repeatable Process to Develop Fundable Concepts
- Three (3) Demonstration Concept Plans
- Partnership and Funding Guidance ([today's event!](#))



Summary of Outputs – Ongoing Projects Mapping

We developed mapping of planned and ongoing known projects in each sub watershed.

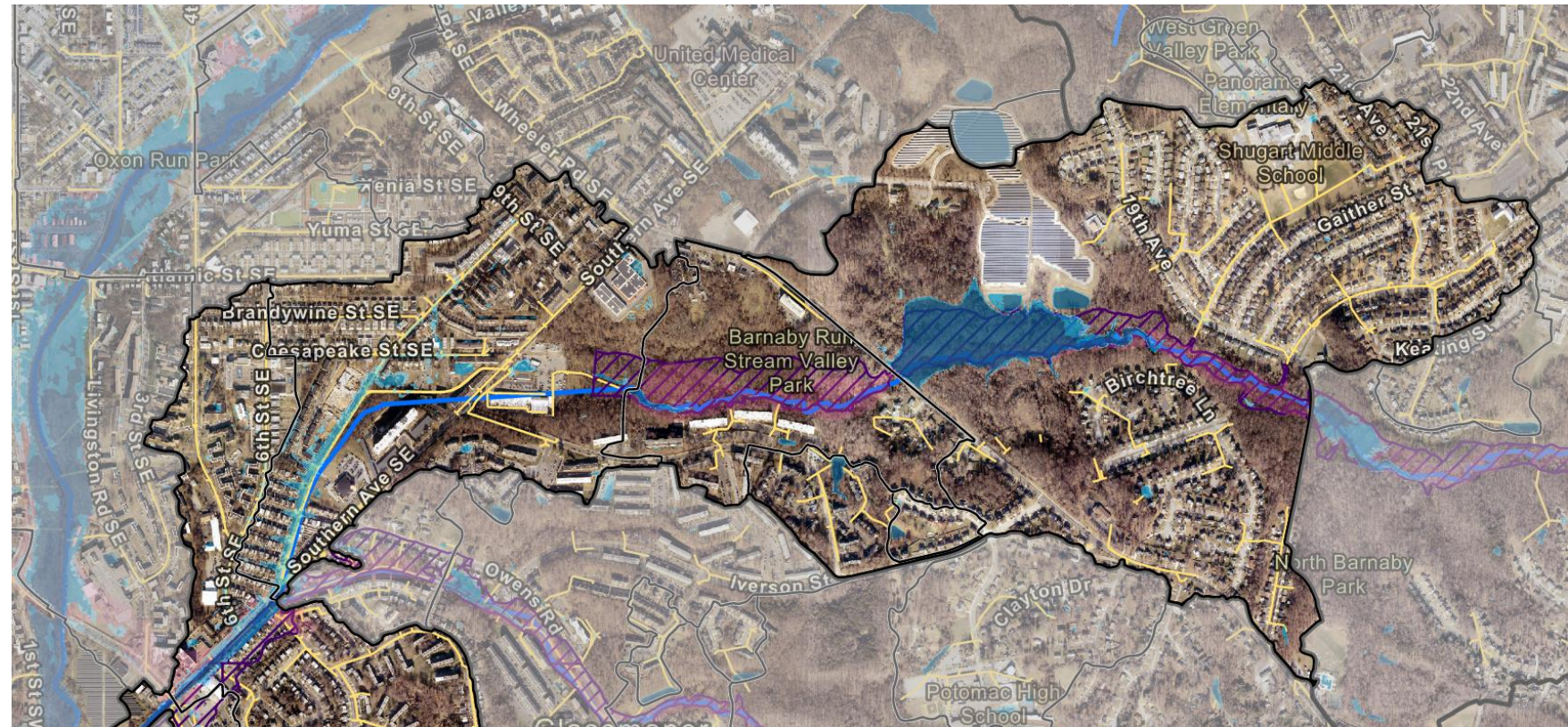


PLANNED AND ONGOING PROJECTS - DETAILS

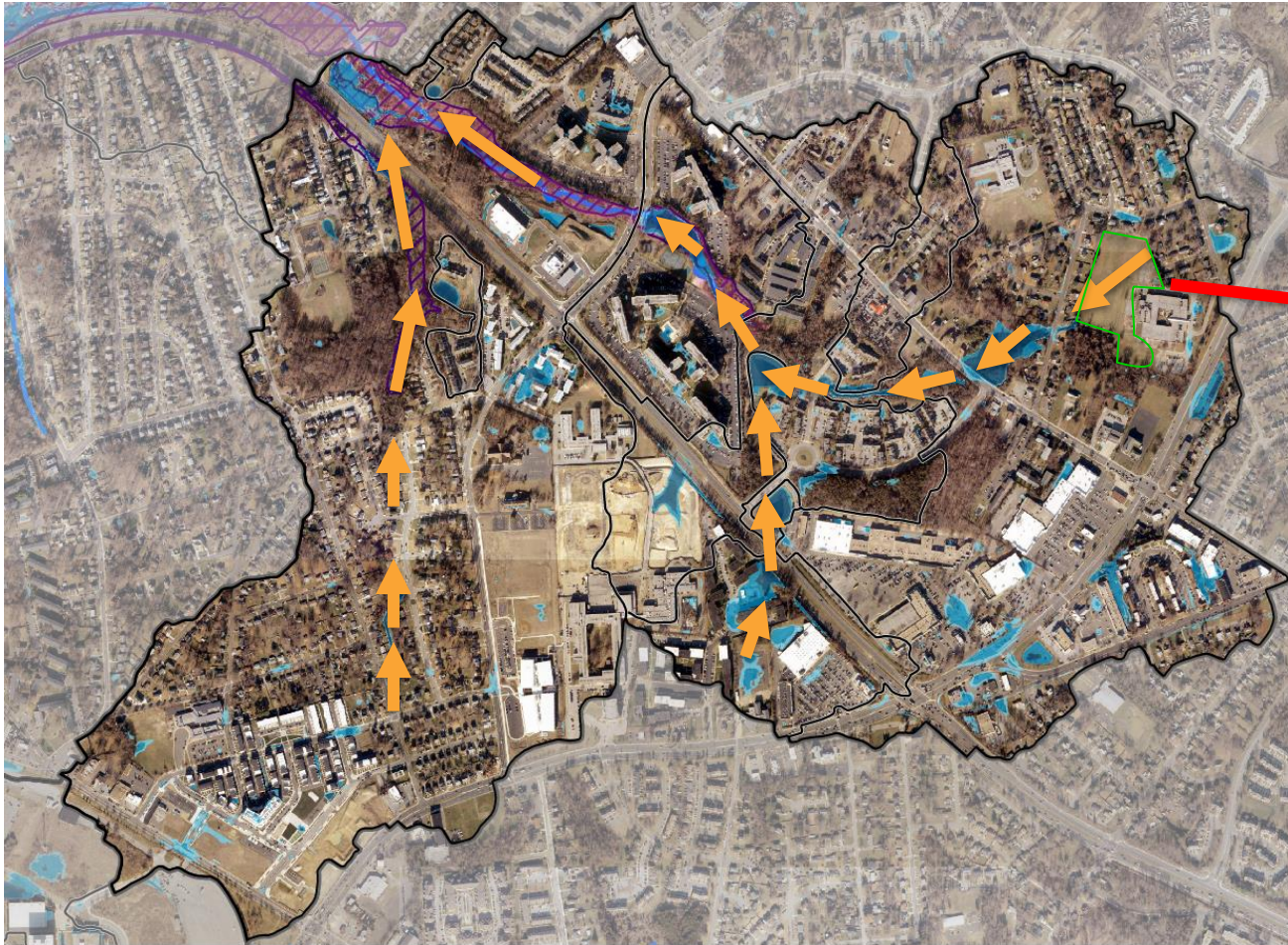
ID	Project Name	Organization	Project Category	Source Link
13	Marlboro Pk. Pedestrian Safety Improvements, Ph. 2	Prince George's DPW&T	Pedestrian Centric	https://www.princegeorgescountymd.gov/departments-offices/public-works-transportation/projects/capital-roadway-and-bridge-projects
21	Marlboro Pk., Glacier Ave. Intersection Traffic Signal Project	Prince George's DPW&T	Transportation	https://princegeorges.maps.arcgis.com/apps/webappviewer/index.html?id=c13928ea8a2946acba51feb034088ce3
25	Rehabilitation of Elevated Water Storage Tanks	DC Water	Water Supply	https://www.dcwater.com/resources/open-data-portal/capital-improvement-dashboard
27	Towne Square at Suitland Federal Center	Prince George's RDA	Development	https://www.princegeorgescountymd.gov/departments-offices/redevelopment-authority/current-development-projects
36	The Ascent	Montage Development Group	Development	https://www.montagedevgroup.com/

Summary of Outputs – Flood Risk Identification Mapping

- Consolidate federal and county flood mapping
- Incorporate latest DOEE modeling (District)
- Incorporate “Blue-Spot” analysis (Prince Georges)

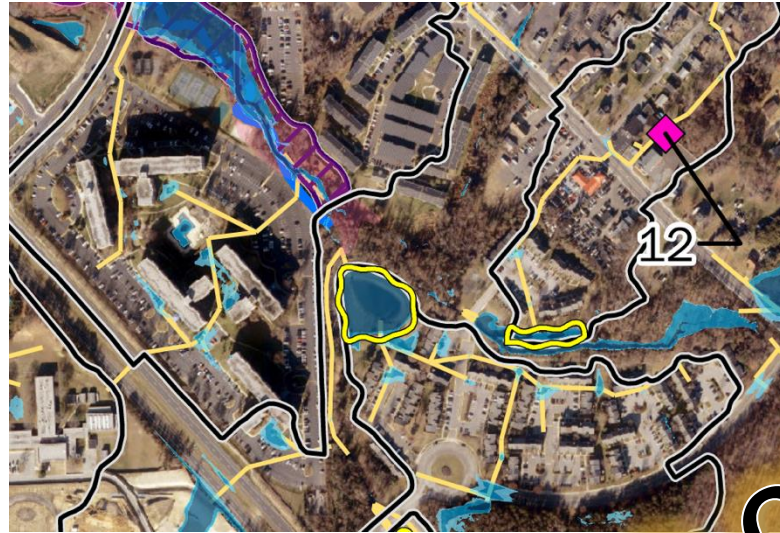


Summary of Outputs – Repeatable Process to Identify BGI Opportunities



Summary of Outputs – Comprehensive BGI Opportunities Mapping

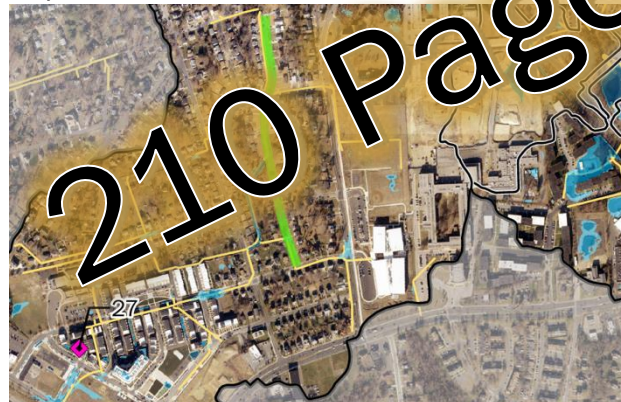
- 1) Bridge and Culvert Modifications
- 2) Floodable Public Spaces
- 3) Green Stormwater Infrastructure
- 4) Blue-Green Streets
- 5) Impervious Reduction
- 6) Pond Retrofits
- 7) Storm Drain Outfall Retrofits
- 8) Stream Daylighting
- 9) Stream, Wetland, and Floodplain Restoration
- 10) Tree Planting



Example: Large Pond behind Oakcrest Townhomes Apartments



Example: Tree planting in open space near Dupont Heights Park



Example: Fort Drive between Towne Park Road and Crosier Street

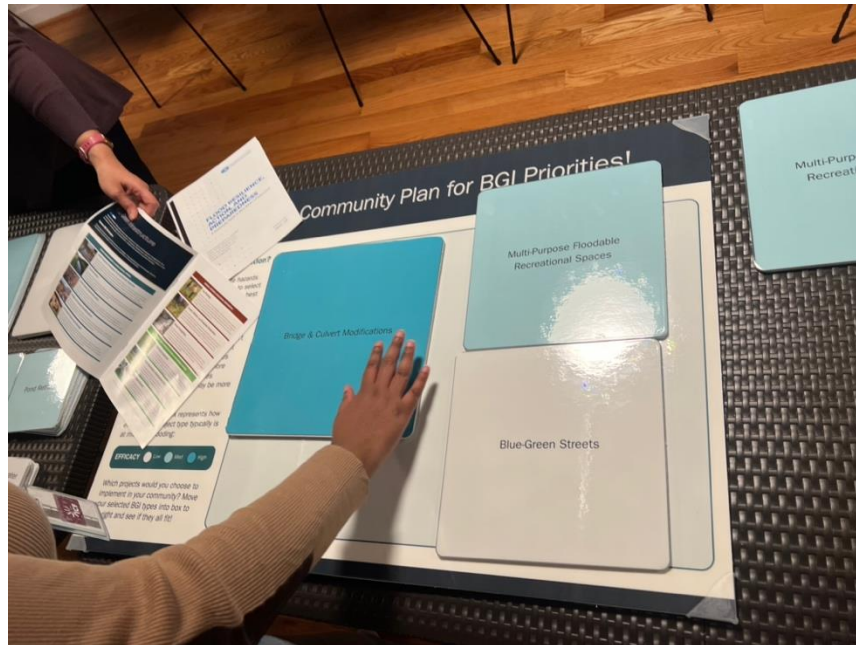
Summary of Outputs – Comprehensive BGI Opportunities Mapping

- **Local Governments:** use our mapping to target retrofit projects.
- **Stewardship Groups:** Find opportunities, in your community, aligned with your cause.
- **Community Members:** Advocate for solutions that beautify your shared spaces.
- **All:** join with funders, select projects and follow our process to develop fundable concepts.



Summary of Outputs – Prioritization Tool

Previous events have helped us understand priorities on preferred *types* of projects and their relative effectiveness.



	LOW	MED	HIGH
TIMELINE	●	●	●
COST	●	●	●
FOOTPRINT	●	●	●
HAZARD REDUCTION	●	●	●

Note: Project details refer to one installment of the solution.

-  **Flood Mitigation**
Reduce runoff rates by capturing some rainfall in tree canopy, which slows down rain as it falls to the surface, and by providing green space where water can infiltrate.
-  **Social Equity**
Provide shade to reduce extreme heat, the financial burden of cooling homes, and the potential health risks associated with heat waves.
-  **Public Health**
Provide air quality benefits and shade to reduce health risks associated with extreme heat (i.e., cardiovascular and respiratory illness).
-  **Sustainable Development**
Encourage growth that balances economic, social and environmental well-being for existing and new residents.

Summary of Outputs – Prioritization Tool

We've developed a prioritization tool that balances:

- Social Equity
- Existing Flood Risk
- Actionability
- Watershed-wide Impact

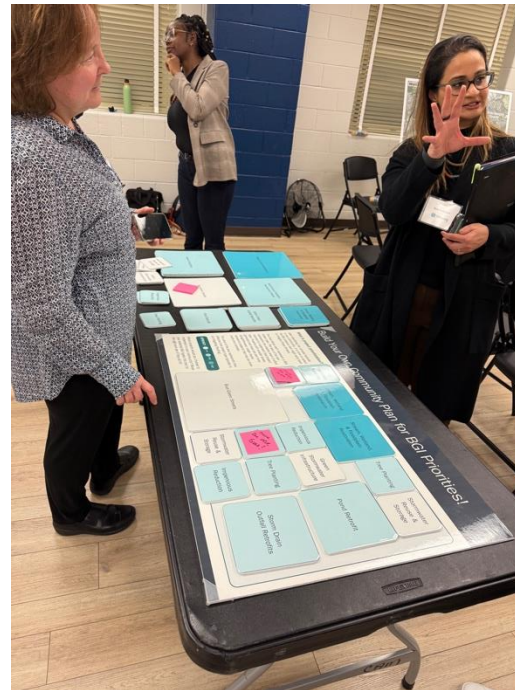
This is a living tool that we can adapt as priorities change.



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Criteria	Metric Notes	Category	Criteria Weight (max Score)*	Oxon Run										
				1	2	3	4	5	6	7	8	9	10	11
Social Vulnerability Index	Weighted average/FA Acre	Social Vulnerability and Equity	4.5	3.4	3.3	3.7	3.9	4.1	3.6	4.0	4.2	4.5	4.1	3.3
Equity Emphasis Area	Weighted average/FA Acre		4.5	3.2	2.6	1.8	3.2	4.5	2.3	4.1	3.3	4.1	3.2	1.8
Assets for Socially Vulnerable Population	Count/FA Acre		9	4.9	3.5	1.0	5.9	9.0	3.3	6.7	2.0	2.4	2.9	1.4
Total Population	Weighted average/FA Acre		9	6.0	6.9	8.6	6.4	6.6	7.9	6.9	6.4	8.0	6.9	6.2
Population Density	Acre		3	1.4	1.5	0.8	2.2	3.0	1.7	2.5	1.6	1.8	1.3	0.5
Building Footprints within FEMA Flood Hazard Area - 100-year and DPIE	Acres x Factor Total/FA Acres	Asset Vulnerability	6	0.1	0.8	0.0	0.1	6.0	0.0	1.9	1.7	0.0	0.0	2.1
Building Footprints within Bluespots/IFM	Acres x Factor Total/FA Acres		3	1.3	0.8	3.0	1.1	1.2	1.0	1.0	0.8	0.8	0.5	0.2
Impervious Road Surface Area within FEMA Flood Hazard Area - 100-year and	Acre/FA Acre		6	0.1	0.7	0.1	0.6	0.4	0.1	0.8	1.1	0.0	0.8	0.8
Impervious Road Surface Area within Bluespots/IFM	Acre/FA Acre		3	1.3	0.5	1.1	0.7	1.2	0.3	0.8	0.2	0.7	0.8	1.6
FEMA Flood Hazard Area - 100-year and	Acre/FA Acre		2	0.2	0.3	0.1	0.5	0.5	0.2	0.4	0.4	0.2	0.1	0.4
Bluespots/IFM	Acre/FA Acre		2	0.7	0.3	0.9	0.4	2.0	0.2	0.8	0.2	0.3	0.3	0.6
Critical & Community Assets	Count x Factor Total/FA Acres		8	3.3	1.4	1.0	1.0	8.0	1.5	1.5	1.7	0.7	1.3	0.0
Bridge and Culvert Modifications (BCM)	Count/FA Acre	Actionability	1.2	0.4	0.4	0.6	0.2	0.3	0.2	0.3	1.2	0.0	0.4	0.0
Green Stormwater Infrastructure (GSI) (Point Count)	Count/FA Acre		2.3	0.9	0.5	0.9	0.7	0.3	2.2	2.2	1.0	1.9	0.6	0.0
Green Stormwater Infrastructure (GSI) (Polygon Acre)	Acre/FA Acre		2.3	1.4	1.2	1.2	0.8	0.8	0.7	1.2	1.5	1.7	1.7	0.5
Storm Drain Outfall Retrofits (OUT)	Count/FA Acre		2.3	1.4	0.9	0.4	0.8	0.3	0.7	0.8	0.5	1.8	0.4	0.5
Blue Green Street (BGS)	Linear Feet/FA Acre		2.3	0.1	0.8	0.0	0.5	1.4	0.4	0.8	0.0	0.0	0.5	0.0
Stream Daylighting (DAY)	Linear Feet/FA Acre		1.2	0.0	0.4	0.0	0.7	0.4	0.5	0.3	0.2	0.8	0.3	1.2
Stream, Wetland, and Floodplain Restoration (STR)	Linear Feet/FA Acre		3.5	1.4	0.8	1.8	1.2	1.2	1.1	1.0	2.0	1.6	1.2	0.8
Multi-Purpose Floodable Recreational Spaces (FRS)	Acre/FA Acre		3.5	1.2	0.4	2.3	1.4	3.5	1.1	0.0	1.0	1.3	2.5	1.1
Impervious Reduction (IMP)	Acre/FA Acre		4.6	4.4	0.9	4.6	1.7	2.0	4.0	0.5	0.0	0.9	2.4	0.0
Pond Retrofits (PND)	Acre/FA Acre		2.3	1.3	0.2	1.1	0.4	0.1	0.1	0.6	0.2	0.4	0.3	1.5
Tree Planting (TRP)	Acre/FA Acre		4.6	1.8	1.3	3.6	1.9	4.6	1.4	0.9	2.3	1.6	1.6	1.1
Watershed-wide Impact		Watershed-wide Impact	10	10.0	5.0	10.0	5.0	0.0	10.0	0.0	5.0	10.0	10.0	0.0
SUBTOTAL		Social Vulnerability and Equity	30	19.0	17.8	15.9	21.5	21.1	18.8	##	18.0	##	##	13.2
SUBTOTAL		Asset	30	6.9	4.7	6.2	4.4	19.4	3.4	7.2	6.0	2.7	3.9	5.7
SUBTOTAL		Actionability	30	14.4	7.7	16.5	10.3	14.8	12.5	8.6	9.7	11.9	11.8	6.7
SUBTOTAL		Watershed-wide Impact	10	10.0	5.0	10.0	5.0	0.0	10.0	0.0	5.0	10.0	10.0	0.0
Total Score				100	50.3	35.2	##	41.3	61.3	44.7	##	##	45.5	46.1
SUBTOTAL RANKING		Social Vulnerability and Equity		6	9	10	3	1	7	2	8	4	5	11
SUBTOTAL RANKING		Asset		3	7	4	8	1	10	2	5	11	9	6
SUBTOTAL RANKING		Actionability		3	10	1	7	2	4	9	8	5	6	11
SUBTOTAL RANKING		Watershed-wide Impact		1	6	1	6	9	1	9	6	1	1	3
RANKING				2	10	3	7	1	6	8	9	5	4	11

Summary of Outputs – Community Outreach Guide and Tools



Importance of Blue-Green Infrastructure in Enhancing Flood Resilience & Community Co-benefits

Blue-Green Infrastructure (BGI) integrates natural landscapes and innovative engineering to manage water sustainably. It includes solutions like green roofs, rain gardens, wetlands, and multi-functional public amenities like floodable parks, playgrounds, public plazas, permeable hard surfaces such as sidewalks and parking areas. These and other types of BGI solutions provide co-benefits to the community like:

- Reducing flood risks by absorbing and slowing down stormwater runoff
- Improving air and water quality by filtering pollutants
- Enhancing urban biodiversity for vegetated and aquatic habitats
- Increasing community assets by expanding green spaces for both active and passive recreation
- Mitigating urban heat island effects, making cities more livable by reducing the rate of extreme heat
- Capturing rainwater for reuse as water features, to power heat pumps, or for floating water farm

Flood resilience is crucial in our changing climate, where extreme weather events are becoming more frequent. Implementing BGI helps communities adapt to these changes, protecting homes, businesses, and critical infrastructure from flood damage.
 Source: Seattle Park, Portland
 © 2024 BGI Alliance/Seattle Park

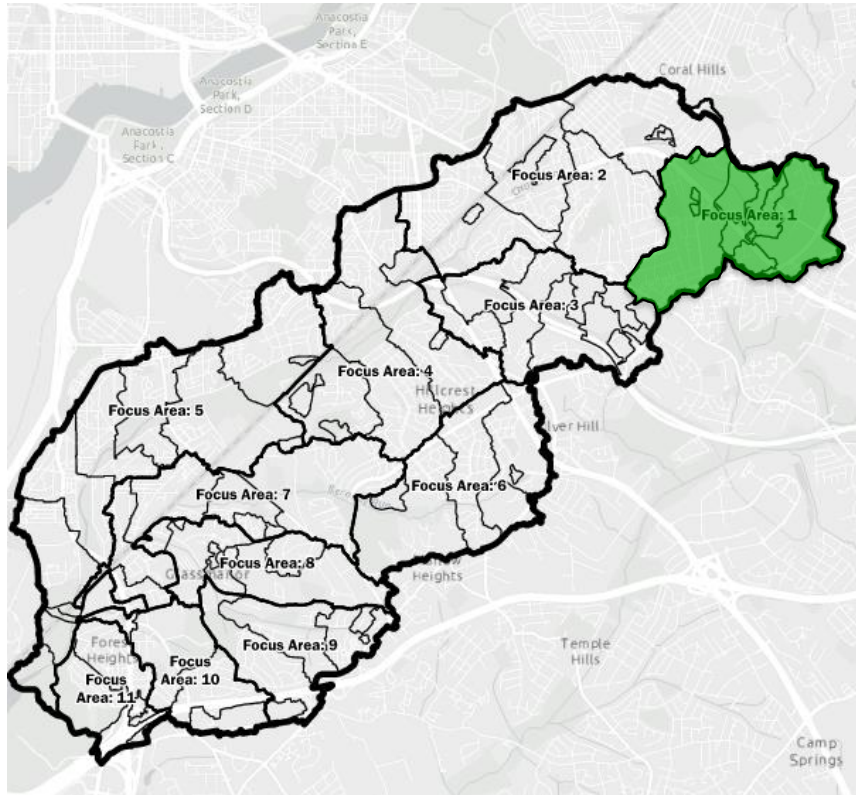


Summary of Outputs – Repeatable Process to Develop Fundable Concepts

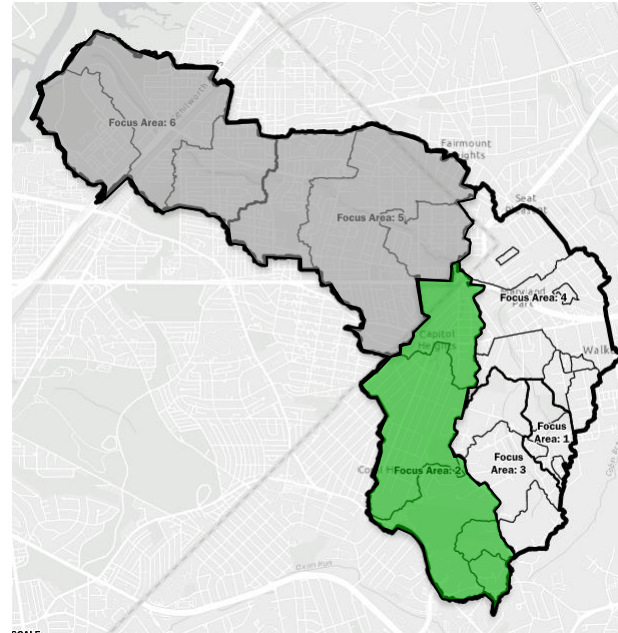
- ✓ Plan site visits
- ✓ Collect data
- ✓ Select the right opportunities for you
- ✓ Quantify flood storage potential
- ✓ Analyze effectiveness and quantify benefits
- ✓ Develop mapping



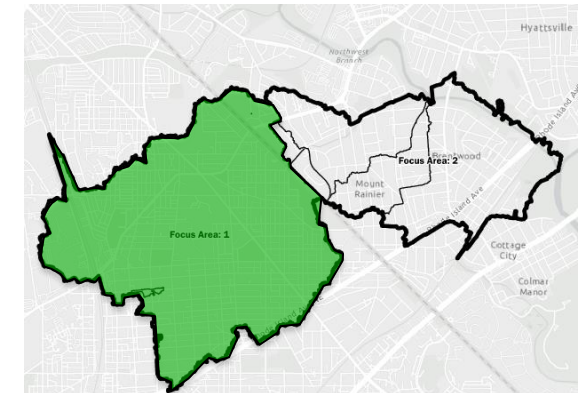
Demonstration Concept Plans



Oxon Run – 11 Focus Areas



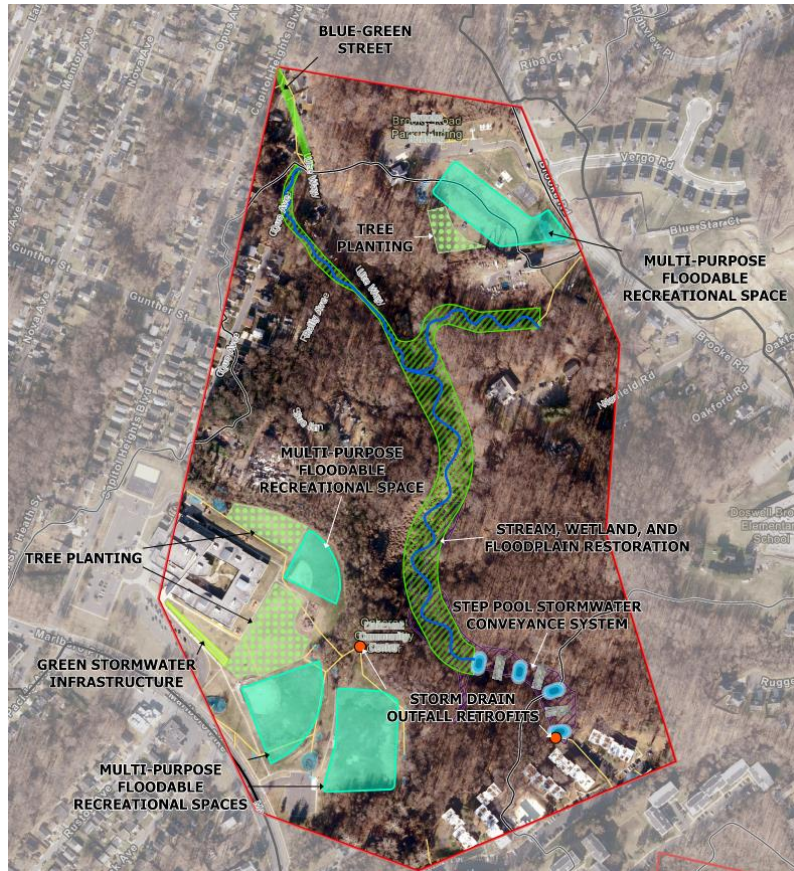
Watts Branch – 4 Focus Areas*



Arundel Canal – 2 Focus Areas

*Note: We exempted neighborhoods in Watts Branch within the District as DOEE is currently executing a parallel study.

Demonstration Concept Plans (Draft/Examples)



Pictured: Excerpts from in-progress concepts (draft)



Summary of Outputs – Partnership and Funding Guidance

- This is why we are here today.
- This project was about identifying partners and putting them in this room.
- Let's have open dialogue about what it really takes to advance good ideas to funded projects.

REGIONAL OPEN HOUSE FLOOD READY COMMUNITIES

**DISCUSS FUNDING AND IMPLEMENTATION
FOR FUTURE PROJECTS.**

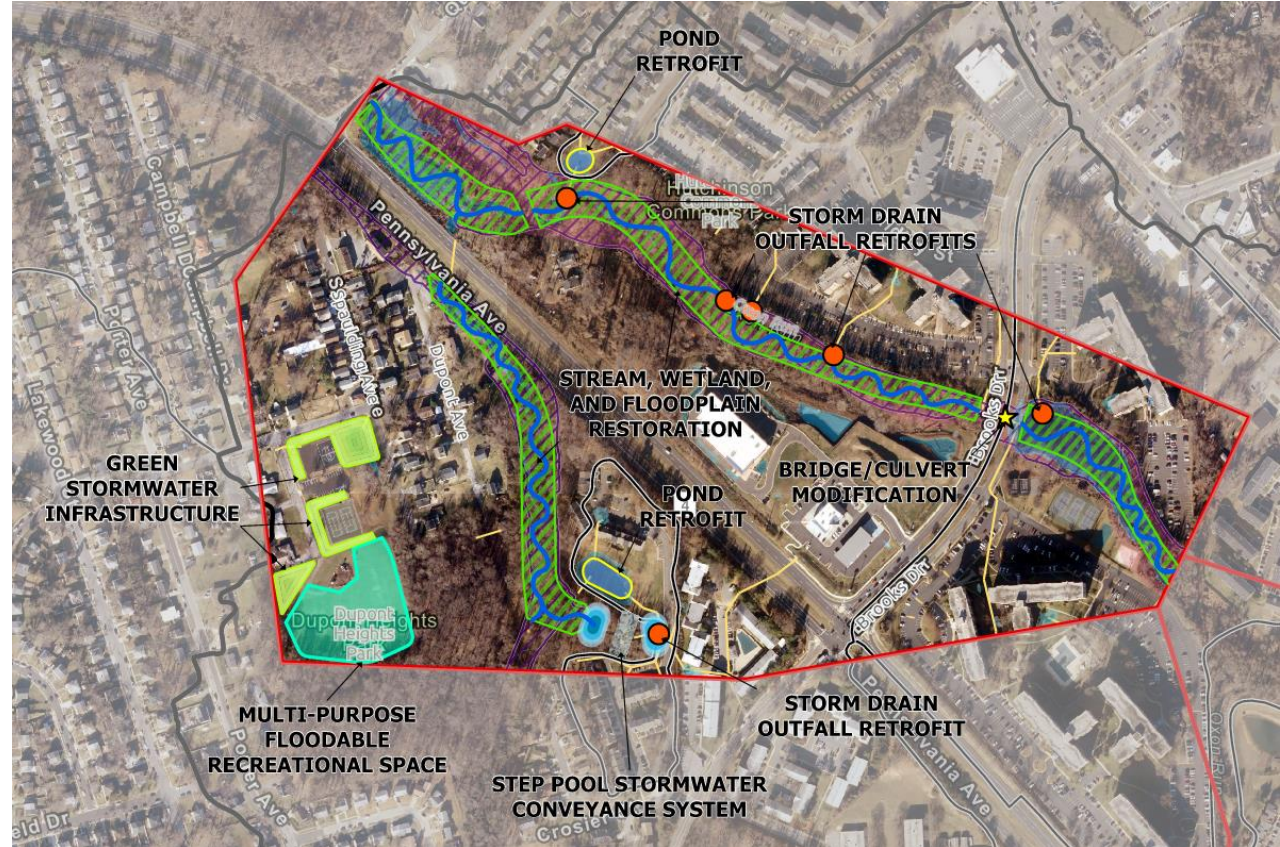
Join us in-person for the Regional Open House!

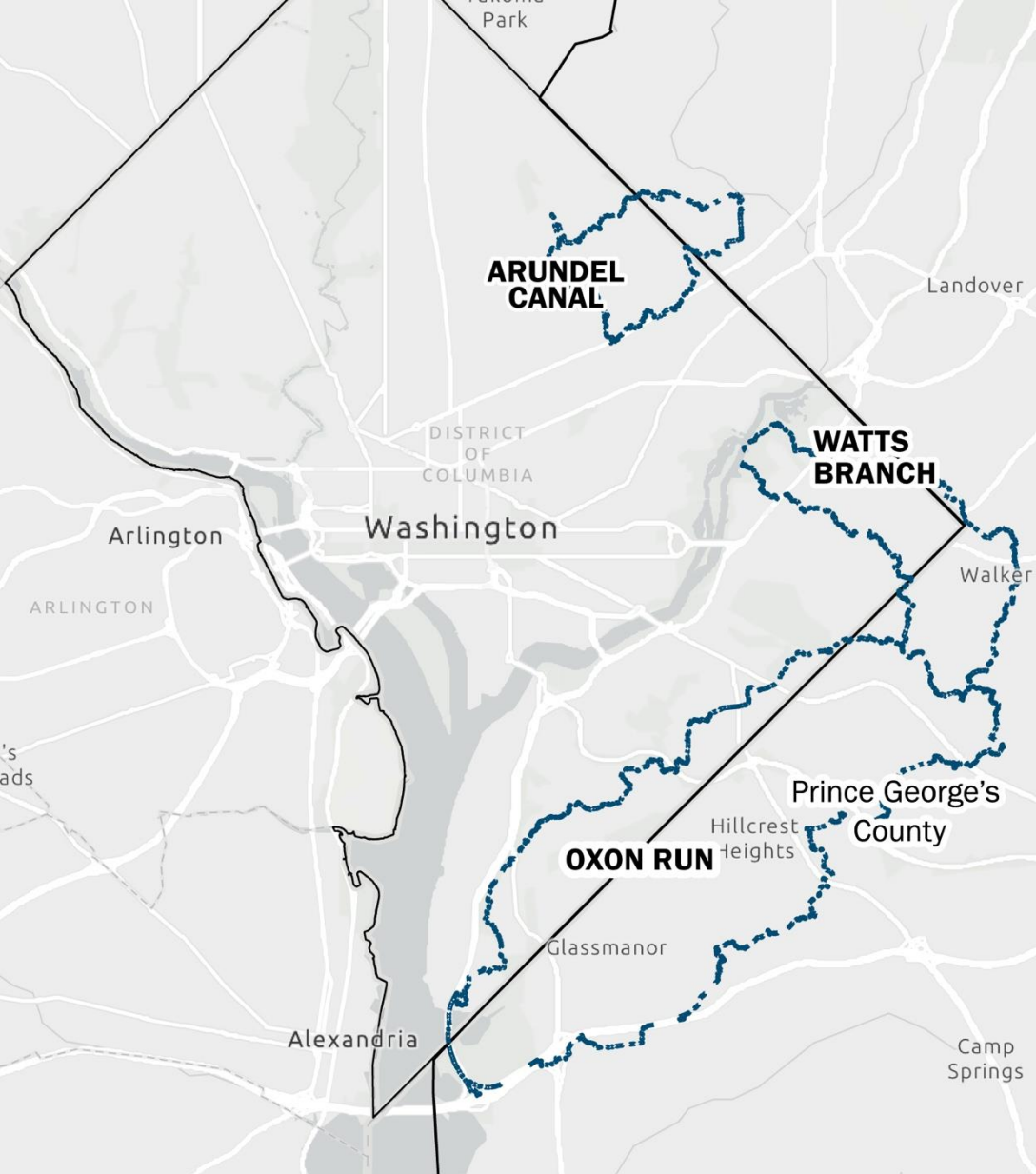
May.22
THURS | 4:30–7:30 PM
MARVIN GAYE REC CENTER



What's Next?

- Our **work** positions the Oxon, Watts, and Arundel Canal communities to secure partnerships and funding for implementation.
- Our **process** can be used and repeated by our partners in neighboring areas.





Panel Discussions

Panel 1: Funding in Uncertain Times: Feasibility of BGI Project Concepts

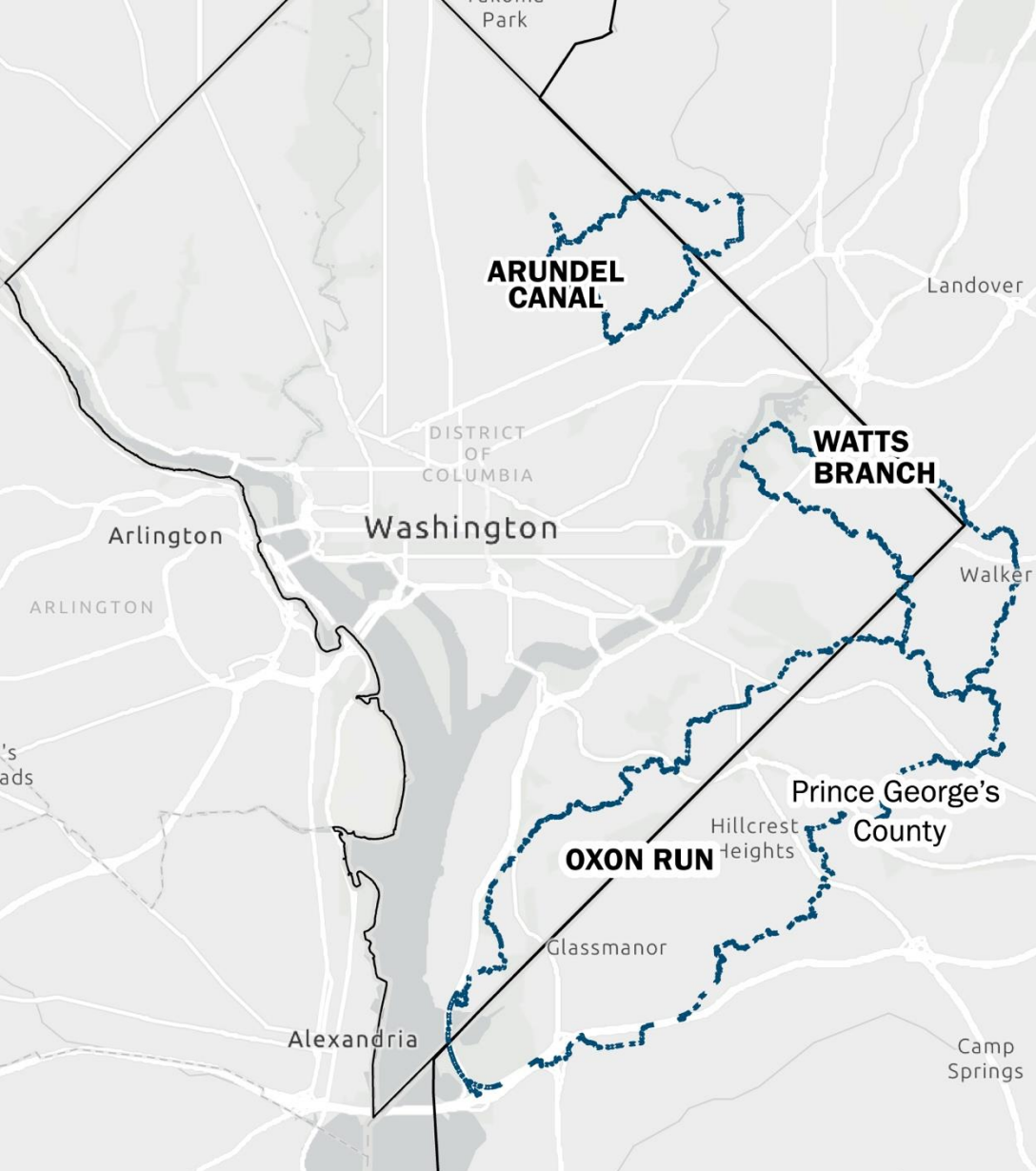
Moderator: Joe Arrowsmith, Straughan Environmental

Panel 2: Implementation Partnerships: Lessons Learned for Stakeholder and Community Engagement

Moderator: Erin Jones, CHPlanning



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Panel 1: Funding in Uncertain Times: Feasibility of BGI Project Concepts

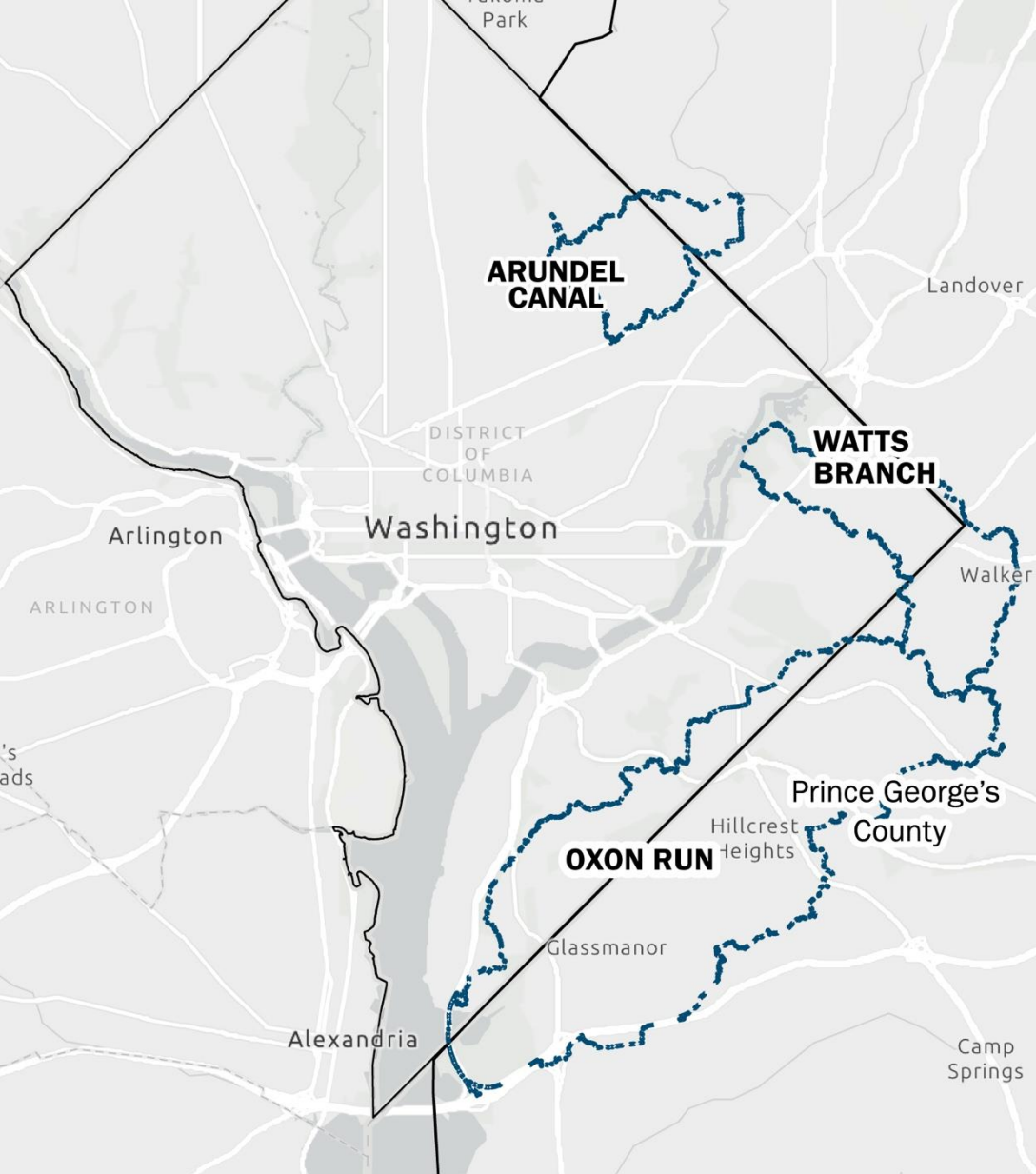
Moderator: Joe Arrowsmith, Straughan Environmental

Speakers:

- Vermecia Alsop, HSEMA
- Stephanie Dalke, UMD Environmental Finance Center
- Dr. Estelle-Marie Montgomery, FH Faunteroy Center & Resilience Incubator
- Kelly Collins Choi, Casey Trees
- Grace Dho, Chesapeake Bay Trust



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Panel 2: Implementation Partnerships: Lessons Learned for Stakeholder and Community Engagement

Moderator: Erin Jones, CHPlanning

Speakers:

- Dennis Chestnut, Groundwork Anacostia River DC & Ward 7 Resilience Hub Community Coalition
- Brenda Lee Richardson, Friends of Oxon Run
- Madeline Daugherty, Mount Rainier Nature Center
- Ashley Drakeford, City of Seat Pleasant



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Engagement Stations

Station 1: BGI Education

- Learn more about Blue-Green Infrastructure project types.

Station 2: “Find Your Project” Table

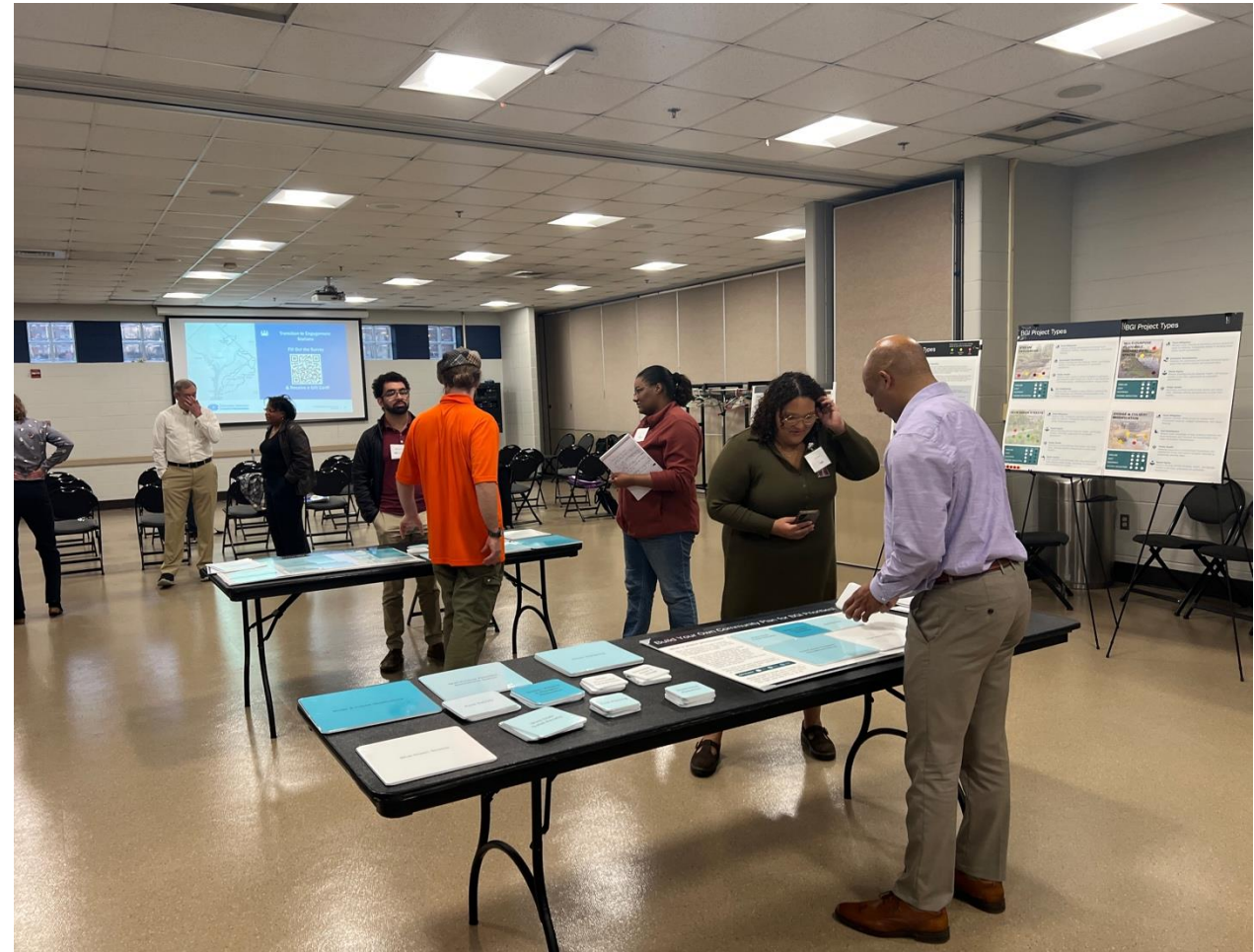
- Talk with *Joe Arrowsmith* from *Straughan Environmental* to help you find your next project!

Station 3: BGI Participation Spectrum

- Explore how your organization and others can be involved in future BGI implementation — from awareness to implementation.

Station 4: Resource Table

- Hosted by DISB — guidance on flood insurance



Closing Remarks & Workshop Evaluation

- **Thank you** to our community partners who provided materials and the panelists!
- **Stay Connected**
Have questions or want to stay involved? Email us at **BGI@MWCORG.ORG**.
- **Project Updates**
Visit our website for the latest updates: **www.mwcog.org/BGI**

Open House Survey (Paper + QR code):

Please take a few minutes to complete the open house survey. Your feedback helps us understand how the open house was useful to you.



Residents who **complete** the survey will receive a gift card!

THANK YOU!

Stay connected! Be Engaged! Learn More
by visiting our project website!



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