

EXECUTIVE SUMMARY

The **Regional Blue-Green Infrastructure Community Engagement and Planning Study** was conducted by the Metropolitan Washington Council of Governments (COG) to address flood concerns across jurisdictional boundaries in the District of Columbia (D.C.) and Prince George's County, Maryland, by identifying Blue-Green Infrastructure (BGI) solutions. The study focuses on three watersheds: **Arundel Canal, Watts Branch, and Oxon Run** (Figure 1), which include traditionally disadvantaged communities in flood-prone areas. The study used community engagement and flood analyses to identify BGI projects that can assist in the mitigation of flood impacts. By integrating community feedback, leveraging data-driven analysis, and prioritizing strategic interventions, **this study lays the groundwork for a resilient and sustainable approach to flood management. Further community engagement and design planning is needed to refine and implement BGI concepts necessary for funding opportunities.** The framework developed through the study can assist in mitigating flood risks while enhancing the quality of life for residents, promoting environmental justice, and fostering a stronger, more connected community.

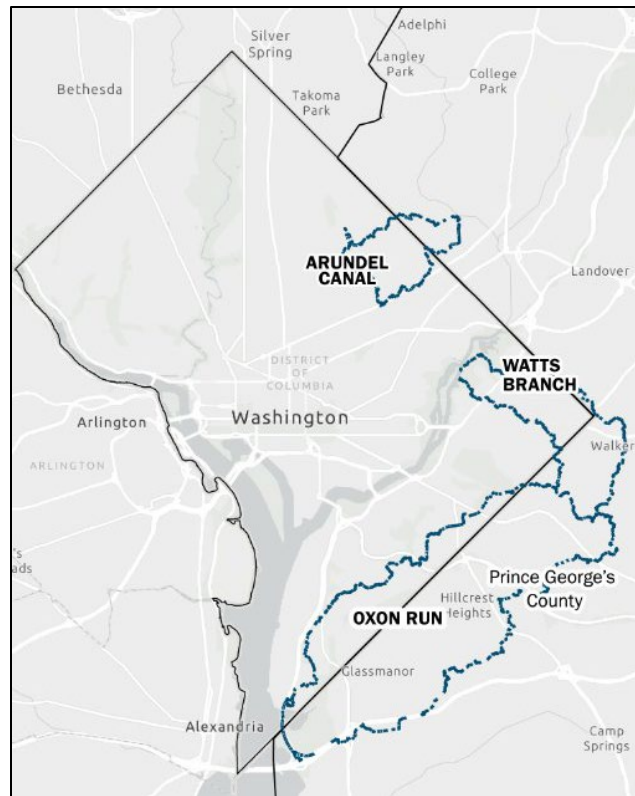


Figure 1: Arundel Canal, Watts Branch, and Oxon Run watersheds.

Regional Collaboration

This study was grounded in the idea that **water knows no boundaries**. This study employs a regional watershed approach to foster flood resilience, particularly where projects in one location benefit the entire watershed. The three watersheds are particularly unique and challenging given that each crosses the jurisdictional boundary between the District and Prince George's County.

What sets this study apart is its ability to plan at the watershed-level and identify projects that will benefit both jurisdictions. Projects located in upstream neighborhoods provide co-benefits to those communities, while reducing flood risk for downstream neighborhoods, fostering collaborative investment and benefits across jurisdictional boundaries. This regional approach solves challenges that often originate upstream or outside a given agency's control.

A watershed-based, regional approach considers the entire watershed or floodplain to address both upstream and downstream impacts and foster investment and collaboration across jurisdictional boundaries.

This innovative study and its supporting materials provide a **scalable, flexible, and technically grounded roadmap for implementing BGI** in other watersheds facing similar challenges. The key components of this study are summarized below:



Meaningful Community Engagement



Workshops, tabling events, and virtual meetings were conducted to gather input from residents, community-based organizations (CBOs), and local stakeholders. This feedback was instrumental in shaping the BGI strategies and ensuring they align with community needs and priorities.



Data-Driven Analysis and Prioritization

Regional and local datasets were used to identify and prioritize BGI projects based on their impact and other key factors. A prioritization framework was ultimately created to support transparent, equitable, and actionable flood resilience planning across the study area and other watersheds.



Strategic Intervention

The study focused on BGI projects that provide the greatest benefit to the watershed and are aligned with broader regional goals. This involved selecting sites that offer the highest potential for flood mitigation, ecological restoration, and community co-benefits.

Key Findings and Recommendations

1. Design Engagement for Flexibility and Fit

- **Engage Community-Based Organizations (CBOs) Throughout:** Initiate collaborations with CBOs early and maintain continuous engagement at every step.
- **Adapt Strategies:** Tailor engagement methods to fit the unique needs and capacities of local stakeholders, including municipal agencies, community-based organizations (CBOs), and residents.
- **Build Trust:** Maintain transparency, acknowledge prior engagement, adapt based on community readiness, and lay the groundwork for continued engagement beyond the project's funding period.

2. Centering Watersheds as the Scale of Analysis

- **Create Project Focus Areas:** Divide watersheds into smaller focus areas to facilitate targeted implementation strategies aligned with community values and priorities.
- **Use Data-Driven Analysis:** Incorporate regional and local datasets to identify and prioritize BGI projects.
- **Map Existing and Ongoing Projects:** Collect information on parallel projects to support cross-jurisdictional support and avoid duplicating efforts.

3. Develop Fundable Concept Plans

- **Emphasize Community Co-Benefits:** Work with residents and local partners to define appropriate co-benefits through a collaborative, community-led process.
- **Assess Watershed Influence:** Understand how the selected project area functions within the broader watershed to set meaningful objectives.
- **Plan Site Visits:** Verify mapped data, evaluate conditions on the ground, and identify potential opportunities and constraints.
- **Select Specific BGI Practices:** Narrow down the inventory of potential BGI practices to those that are viable, meaningful, and aligned with stakeholder goals.
- **Develop Plan Views:** Create annotated, scaled graphics that show the location, extent, and type of proposed improvements.
- **Estimate Storage Potential and Costs:** Generate preliminary estimates of flood storage potential and implementation cost.

Guide To This Report

The report is divided into five key sections and concludes with recommendations for future efforts and transferable lessons learned.

Flooding in the Region provides an overview of the flooding challenges faced by the District of Columbia and Prince George’s County and introduces the three watersheds and their communities.

Meaningful Watershed-based Engagement describes our community-driven and adaptive approach to engagement.

Prioritization Within Watersheds summarizes the methodology to describe the process of using data, analysis, and community input to identify and prioritize the type and location of BGI projects within each watershed.

Demonstration Concepts and Recommendations summarizes fundable concepts for BGI projects and includes a detailed case study on BGI concepts in Watts Branch.

BGI Funding provides an overview of funding sources for BGI, offering recommendations for developing a comprehensive funding strategy that combines multiple sources to maximize financial support.

Several ***supporting appendices*** provide additional details and resources to conduct watershed-based engagement and identify and plan for BGI projects:

- Appendix A: Existing and Ongoing Projects
- Appendix B: BGI Typical Details, Images, and Sections
- Appendix C: BGI Opportunities Mapping
- Appendix D: Prioritization Framework
- Appendix E: BGI Site Visit Checklists and Templates
- Appendix F: Concept Plans for Each Watershed
- Appendix G: Watts Branch Case Study
- Appendix H: Outreach Toolbox