



## Watershed Resources Registry— A Data-Driven, Integrated Decision Support Framework and Tool

### Brief Description:

The WRR is a GIS-based mapping tool designed to address priority resources goals, identify watershed needs, and to facilitate the integration of multiple local, state, and federal environmental program goals at a watershed level. The WRR identifies ecological opportunity areas throughout the State of Maryland and scores each opportunity area with a score from one to five stars with five stars indicating the greatest ecological value. These scores are based upon eight suitability analyses including: wetland preservation, wetland restoration, upland preservation, upland restoration, riparian preservation, riparian restoration, stormwater natural infrastructure preservation, and stormwater compromised infrastructure restoration.

### Current Status:

The WRR outreach website was recently released and made available to the public. The website provides information regarding the history of the WRR project, methodologies used, a guided WRR training video, contact information of TAC members, and frequently asked questions, along with other information and links to assist the user with the WRR. The outreach website serves as the platform to access the Web application. It is also where users can provide feedback on the usability of the application. The WRR is now available to the general public via the WRR outreach website and Web application found at [www.watershedresourcesregistry.com](http://www.watershedresourcesregistry.com).

Partner agencies, as well as other agencies that have recently become familiar with the WRR, are currently using it for an array of activities, such as targeting strategies for Total Maximum Daily Load (TMDL) implementation and CWA §404 NEPA-related projects, targeting ecological opportunities for preservation and restoration, and supporting MDE's In-Lieu Fee program for tidal and non-tidal wetland permitting activities, among other things. Additionally, EPA uses the WRR to gather information prior to conducting site visits and to provide supportive materials for briefings and other projects.

### *Subobjective:*

#### Water Quality

### *Type:*

#### Assessment-Database

### *Highlights:*

- **What:** The Watershed Resources Registry (WRR) is an interactive, comprehensive geographic information systems (GIS) mapping tool and replicable framework that analyzes watersheds to find and score ideal opportunity areas for protecting high-quality resources; restoring impaired resources; and supporting sustainable, integrated watershed management and regulatory efficiencies.
- **Who:** Led by EPA Region 3 (Water Protection Division), current partner agencies include the U.S. Army Corps of Engineers (Baltimore District), the Federal Highway Administration, the U.S. Fish and Wildlife Service, and the Maryland Department of the Environment (MDE) (State Highway Administration, Environmental Services, and Department of Natural Resources). A Technical Action Committee (TAC) consisting of individuals from these partner agencies collaboratively strategizes the development, progress, and future of the WRR and uses it as a vehicle to discuss how to reduce cost and maximize environmental benefit.
- **Why:** The WRR was developed through the Mid-Atlantic Green Highways Partnership as an exercise in interagency collaboration to streamline information collection and preparation for permit processes; achieve program integration and watershed goals; prioritize watershed needs; and increase stakeholder efficiency in utilizing limited resources to achieve multiple goals within a watershed.

Members of the WRR TAC completed agency-specific training sessions within each partner agency to instruct their staffs on how to efficiently use the WRR in their daily project activities. Staff members were also shown how to provide feedback on their experiences with the WRR through a feedback page provided on the WRR outreach website. This feedback is being compiled into a tracking document to be used to improve the WRR.

## Outcomes:

The WRR was recognized by the National Cooperative Highway Research Program, Transportation Research Board in its "Practitioner's Handbook: Optimizing Conservation and Improving Mitigation Through the Use of Progressive Approaches" as a model approach that "provides a publicly accessible platform that analyzes specific ecosystem functions and suggests priority restoration projects that accommodate multiple regulatory or non-regulatory programs."

## Lessons Learned/Recommendations:

Aligning strongly with the goals set forth in President Obama's Executive Order for the Chesapeake Bay, the WRR is a powerful tool with the capability of assisting state, federal,

and local entities in meeting the requirements of the bay's TMDL. However, the WRR provides a transferrable framework that could be employed in other regions as a means to overcome limitations of existing regulatory frameworks that often result in a stovepipe approach to managing resources. The framework requires that individuals from an array of agencies be proactively engaged up front in order to cooperatively identify shared, overlapping, or complementary goals of the traditionally competing regulations that govern their work. The comprehensive program coverage and buy-in during the development of the tool helped to ensure its functionality and utility in achieving synergistic ecological benefits within the scope of a diverse set of programs. The framework can therefore serve as a strategy to be used by entities as they move forward to develop unique registries tailored to the needs of their specific regions.

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