

Metrics for Success – Pre-& Post-Restoration Monitoring for Urban Streams

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Pre and post-restoration monitoring data are essential for showing that environmental projects achieve project goals. Many stream restoration practitioners struggle to capture the necessary data to show environmental uplift because monitoring may be limited by project budgets or simply designed to meet regulatory requirements rather than intentionally planned to detect targeted improvements. The Department of Energy and Environment (DOEE) reviewed the pre and post-restoration monitoring data for over 10 stream restoration projects in the District of Columbia to evaluate the effectiveness of stream monitoring in demonstrating environmental uplift and to provide guidance on monitoring program improvements. This presentation provides an analysis of biological, physical, and chemical parameters collected for constructed stream restoration projects and provides a discussion of how sampling plan frequency, timing, and duration impact the ability to display environmental improvement. This presentation also investigates the role of monitoring in long-term project site maintenance and adaptive management. In addition, examples are provided to show how technology is being used to enhance stream monitoring programs in Washington, DC. Lastly, suggestions are provided to help practitioners re-think monitoring plans and to encourage a holistic view of monitoring that will be effective for meeting the needs of a variety of stakeholders.

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