Setting Your Project Up for Successful GSR Outcomes

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Background/Objectives. The practice of green and sustainable remediation (GSR) has been with us since approximately 2007. Since this time, there has been an explosion of GSR tools and resources available to site owners and remediation practitioners. Too often, the selection and application of GSR tools and resources on projects has been constrained by uncertainty of which tools and resources should be used and when they should be used. This presentation will survey the remediation industry's most robust and utilized GSR tools, provide an overview of how they have been used, and provide project examples demonstrating their value to specific projects.

Approach/Activities. Typical project approaches for implementing GSR were identified and assessed for their ability to lead to successful GSR outcomes. Key GSR guidance documents were surveyed and profiled for their ability to educate practitioners on the depth and breadth of GSR topics. Best management practice (BMP) resources were surveyed for relevancy to different types of remediation projects. Footprint analysis and life cycle assessment (LCA) tools were assessed for their ability to support decision making and ability to identify opportunities to reduce the environmental impact of site cleanup.

Results/Lessons Learned. Drivers for implementing GSR vary based on project type, experience level of the project team, and expectations for success. Projects that intentionally applied GSR to improve the project outcome performed best whereas projects that implemented GSR at the end of a project life-cycle stage did not achieve their potential. GSR guidance documents are helpful in educating practitioners, but they were developed in the earlier years of GSR practice development and have not kept current with new work approaches. When it comes to reducing the environmental footprint of a cleanup project, footprint analysis tools are used significantly more often than LCA tools, generally due to their simplicity and availability; however, there are instances where LCA tools can provide greater insights into environmental footprint reductions.

The above information was consolidated into a decision flowchart that will help practitioners be more aware of GSR implementation tools and resources in a manner that can make their projects more successful and sustainable.