2022 Americas Site Solutions Technology Transfer Conference

Title: How ArcGIS Portal's Webmapping Capabilities Can Streamline Project Planning and Scoping

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Key Topic: Digitalization/Visualization

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Client Name: Calumet Montana Refinery

Project Name: 2022 RCRA – RFI and RA Project Scoping

Project Location: Great Falls, Montana

Primary Ramboll Project Staff (Office): Ann Arbor, Michigan

ABSTRACT

Background/Objectives:

Calumet Montana Refinery (CMR) is a long-term environmental investigation/remediation project (RCRA Facility Investigation – RFI and Baseline Risk Assessment – BRA) that is scoping a large field investigation. ArcGIS Portal webmapping is being used by the project team to facilitate and support scoping decisions. The webmap has been used to analyze and visualise current and historic project data including utilities, historical borings/wells, proposed borings/wells, areas of concerns/solid waste management areas, well logs, cross-sections, etc. The webmap is used in meetings with the client and regulators with real-time editing of GIS data that expedites and enhances the scoping process. Data stored within the ArcGIS portal is used by technical personnel to develop static figures for various deliverables. Ramboll personnel onsite can respond to issues quickly by reviewing/evaluating what impacts/contaminants are present across the site as shown on the webmap. The webmap is an ever-evolving tool that is constantly being updated to better serve the project and client needs.

Approach/Activities:

Using the interactive webmap instead of static (PDF) maps gives the project management team a better and more useful tool for project planning and managing. The webmap is a living document that is constantly being edited and updated. It can be used directly in meetings instead of static maps, which allows for more organic, fluid, and interactive meetings.

Results/Lessons Learned:

The interactive nature of the webmap aided Ramboll's ability to come to a scoping agreement with the regulators prior to generating Work Plans. It limited document revisions and the "back and forth" editing of static PDF maps. Site solution decisions can be determined in a single working session. With limited to no GIS experience, project managers can use the interactive webmap for project planning and management.

Aspect of Work that Relates to Sustainability:

The use of a webmap streamlines project planning and managing, which leads to more efficient project outcomes regarding remediation and investigations. This tool allowed Ramboll to convey complex strategies/approaches via virtual meetings which helped to reduce the need for some parties to visit the site, reducing the need for travel.