

Meeting the Critical Deadline while Implementing a Trio of Multi-million Dollar Remedies: Collaboration Required

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Project implementation to meet an expedited project schedule driven by regulatory requirements, property access, and contractor coordination is an ongoing challenge for today's environmental market. The 2014 remedial activities completed at the site of a former rail yard (Site) exhibits successful implementation in a location heavily affected by local utilities, multiple regulatory agencies, and a narrow construction window.

Remediation activities at the site included multiple excavations (removing 32,000 tons of impacted soil), installation of a directed groundwater recirculation (DGR) system over 12 acres of property, and the installation of a large electrical resistivity heating (ERH) system including 335 electrode locations and 104 extraction wells. The team formed to implement the remedial activities included members from three consulting firms in addition to input and oversight from the property purchaser's consulting firm. Without significant collaboration among all parties involved, the remedial objectives could not have been successfully implemented within the stringent timeframe.

Construction of all three remedies occurred simultaneously during the Summer/Fall of 2014. At times, over 100 construction personnel were on site. This presentation will discuss the logistics of implementing the large (\$36 million) remediation effort in a short timeframe. The overall process began with an analysis of required federal, state and city permits and timing for completion of each. The permitting process was initiated while the remedial strategy was finalized. Areas of the Site required two, or sometimes all three, remediation activities to be implemented in the same area. Prior to construction, conflicts were identified and alternate solutions presented to streamline project implementation.

To coordinate multiple construction activities a Site-wide construction manager was employed, while each remedial discipline also had a dedicated on-Site construction manager. Technical support teams for each remedial group worked continuously to communicate scope, schedule, and project impacts. Weather delays, contractor coordination, and multi-trade union cooperation often required schedule change and revised planning for the stages of construction to meet the required implementation timeframe. Sequencing drawings were developed to manage contractor progress providing a visual representation of work areas, loading areas, staging areas, and traffic patterns during the height of construction activities. The implementation of a comprehensive field health and safety program with dedicated on-site supervision resulted in zero lost time incidents with over 30,000 man hours worked.

Remedial strategy, permitting, compliance, and construction management will be outlined illustrating the positive outcomes possible with collaboration. A summary will be provided documenting the keys to successful implementation of the remedial activities, to highlight the key lessons learned for implementation of other large-scale cleanup projects, and to provide an overview of the observed treatment effectiveness to date.
