Successful Construction Management

Shannon Dunn (shannon.dunn@arcadis.com, Arcadis, Minneapolis, Minnesota, USA) Mark Gravelding (Arcadis, Syracuse, New York, USA) Joe Molina (Arcadis, Fairport, New York, USA)

Background/Objectives. How should the remediation be contracted and managed to minimize construction risk? This is a question often posed by sediment remediation project owners once remedial design is approved and remediation is ready to begin. Interdependent issues such as determining risk management, the contracting approach, contractor requirements, appropriate contingency measures, project cost, and schedule can create a daunting new phase of the sediment remediation project. What contracting mechanism to use will affect schedule and cost. Defining the project risks, the owners risk tolerance, and the approach to managing and mitigating the risk are components of a successful risk management program for any given project. Key scheduling challenges may include contracting, permitting, environmental construction windows, seasonal construction windows, and regulatory approval.

Approach/Activities. The method of contracting will determine which risks are retained by the owner and which risks are transferred to the contractor. Transferring risk increases the cost of the project. Understanding the contracting options and how they affect risk and cost is key to selecting a contracting mechanism that meets the owner's priorities. Developing a risk register will help the owner identify major construction risk categories and assess the relative risks of each category. The owner can incorporate their company's values into the risk evaluation. By identifying the potential problems and ranking the risks, then strategies can be developed to mitigate the construction risk. This can lead to successful sediment remediation.

Results/Lessons Learned. This presentation will describe the contracting mechanisms for sediment remediation and the advantages and disadvantages of each method. Risk evaluation will be discussed along with project examples to illustrate how risks can be managed. The project look-backs will also consider alternative options, best practices, and lessons learned during construction that may be useful to owners of upcoming sediment remediation projects.