



5th International Symposium on Sediment Management (I2SM 2016)

Montreal - July 10-13 2016

ALAN S. FOWLER¹, JOHN R. LOPER, PE², THOMAS B. LOPER, CHMM²

¹ Ramboll Environ, 136 Commercial Street, Portland, Suite 402, ME 04101, asfowler@ramboll.com, ²The Loper Group, PO Box 569, Seabrook, TX 77586, jloper@lopergroup.com, tloper@lopergroup.com

ABSTRACT

A key risk management principle for the assessment and remediation of contaminated sediment is addressing potential sources early in the process. Irrespective of the type and extent of remedy selected for a sediment site, it is important to understand the presence and roles of potential sources before finalizing the remedial decision. There is a wide range of potential direct and indirect sources that can impact a sediment site. While removing all sources is laudable, it is typically not a realistic objective. Indirect inputs, such as atmospheric deposition, are a long-term source of contaminants to these sites. Completely eliminating non-site related sources including wastewater treatment plants (WWTPs) and combined sewer outfalls (CSOs) is unrealistic. These background sources are an important part of ambient conditions for a site and should be accounted for when establishing long-term sediment goals. In addition to background sources, potential direct sources include facility-related discharges, and unstable creek bed sediments and creek banks. An overall approach to source control for a sediment site can be developed by evaluating creek bed and creek bank stability, background conditions, inputs from other direct/indirect sources, and the principles of adaptive site management (ASM). ASM offers an opportunity to balance source control with habitat destruction and use system recovery measurements to refine next steps.

This presentation will include the results of creek bed and creek bank stability assessments conducted for the Anniston PCB Site and an ASM framework for evaluating potential source control measures. The Anniston PCB Site is located in northcentral Alabama and includes over 40 miles of creeks and 7,000 acres of floodplain that are being evaluated for the presence of PCBs through the RI/FS process under a Partial Consent Decree with the USEPA.