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Evaluation of Sediment Transport Impacts of the 2003 Ice Jam in the Lower Grasse River

C. Kirk Ziegler
Quantitative Environmental Analysis, LLC
305 West Grand Avenue
Montvale, NJ 07480
kziegler@qeallc.com

Heather VanDewalker
Blasland Bouck & Lee, Inc.
6723 Towpath Road
Syracuse, NY 13214
HMV@bbl-inc.com

Rudy Slingerland
Penn State University
Dept. of Geosciences
513A Dieke Building
University Park, PA 16802
sling@goesc.psu.edu

Paul Rodrigue
Camp Dresser & McKee
88 Parker Avenue
Massena, NY 13662
rodriguepd@cdm.com

George Ashton
86 Bank Street
Lebanon, NH 03766
george.d.ashton@valley.net

An ice jam event occurred on a portion of the lower Grasse River during March 2003. This event caused sediment transport impacts in various regions of the river, with the occurrence of significant bed erosion and aggradation at specific locations. A range of data-based analyses were used to obtain a qualitative and quantitative understanding of the impacts of the ice jam event on sediment transport in the river. Evaluation of pre- and post-jam bathymetry data provided a description of the spatial extent and magnitude of scour and deposition in the portion of the river affected by the 2003 event. An analysis of bed stratigraphy provided insights into the effects of historical ice jams and made it possible to compare the impacts of the 2003 event to those of past ice jams.