Hydrodynamic Sediment Transport Gay Stamps Sands for LRE

Response Summary:

A mining by product known as “stamp sands”, deposited along the shoreline of Lake Superiors Keweenaw Peninsula near Gay, MI, has been transported by waves and currents both along and offshore for about the past 100 years. The material transported alongshore has led to infilling of the federal navigation channel at Grand Traverse Bay Harbor. The material transported offshore has been depositing on critical fish spawning habitat.

A hydrodynamic and sediment transport study including both in situ observations and numerical modelling will inform future mitigation efforts to minimize infilling of the federal navigation channel and protect essential fish spawning habitat.

Period of Performance:

July 10, 2018 – Sept 28, 2018

Benefits of the Response to the USACE Dredging/Navigation Program:

Expert guidance on hydrodynamic and sediment transport measurements and processes will ensure a successful field data collection operation. Once collected and analyzed, these data will inform management decisions to both minimize infilling of a federal navigation channel as well as protect fish spawning habitat.

Deliverable:

Technical guidance and support will inform in situ data collection strategies including: instrument selection and settings to accurately quantify relevant processes, instrument deployment strategies, study site selection, and data analysis.

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