



Determination of Applicability of the ISSDOTv2 Bed-load Method to Rio Grande Bed Sediments

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

The ERDC-CHL team, David Abraham and Ronnie Heath, traveled to meet USACE-SPA District personnel in Albuquerque New Mexico during the week of June 4-9 2018. During that time ERDC presented proposals for and investigated locations related to quantification of bed-load sediments. The ISSDOTv2 measurement method was presented and after several days of field trips and observations a determination was made that it can be used at several locations.

The Rio Grande River in the vicinity of Albuquerque New Mexico is major source of water supply for domestic, agricultural and industrial use. This supply can be threatened and/or disturbed when significant amounts of sediment are brought into the Rio Grande through tributary flood flows, causing flow impingement and sometimes blockages in the main channel. This often requires annual dredging of the main channel and diversion canals to maintain water delivery capacity.

Prior to the trip presentations were assembled, logistics arranged and discussions made with Field Data personnel. After the trip, equipment, logistics, and future measurement possibilities are being planned with District and ERDC Field Data personnel.



Period of Performance:

31 May – 13 June 2018.

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

By determining bed-load transport quantities, and relating them to flowrates, District personnel will be better prepared for dredging equipment mobilization and to predict the timing of when dredging might be necessary.

Deliverable:

A bed-load measurement plan will be developed in cooperation with District personnel and ERDC Field Data Collection Branch.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions

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