



ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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Response Summary:

The (USACE) New York District (NAN) is planning to construct a hydrologic separation barrier in the Champlain Canal that will help isolate Lake Champlain from future invasive species migrating into the lake through the canal. The specific design and location for the barrier will be chosen through a USACE planning study continuing in FY19. Prior USACE studies have identified that a physical hydrologic separation barrier will be the most effective option for the canal, but have not specified a design or location. An established group of stakeholders has participated in past studies for the canal and is engaged with NAN on this project.

ERDC introduced NAN and their project partners to multi-criteria decision analysis (MCDA), a transparent and data-driven method for supporting alternatives selection in situations where multiple objectives should be considered. For the Champlain Canal barrier selection problem, a variety of environmental, community, and economic objectives are anticipated. The ERDC team discussed and provided support to NAN regarding the potential inclusion of MCDA in the Champlain Canal study. The ERDC team also participated in a webinar and follow-up conference call with NAN, its partner agencies, and some members of the broader stakeholder community for the project about MCDA and ERDC's potential role. The ERDC team further shared background reading and explanatory materials related to this topic and prepared a statement of work (which has since been funded) for leading the MCDA and stakeholder engagement portion of the planning study.

Period of Performance:

20 June 2018 to 22 August 2018

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

The Champlain Canal is used for navigation and recreation. Incorporating MCDA into the barrier design and location selection can lead to a more effective project that better responds to the needs of the NAN district, the project partners, and the local communities.

Deliverable:

This DOTS response results in deliverables including: a series of conversations with USACE NAN; a web meeting with NAN's project partners; a presentation slide deck that introducing MCDA, shows prior examples of MCDA for USACE Civil Works projects, and shows potential application to the Champlain Canal hydrologic barrier alternative selection problem; a packet of related background reading materials; and a statement of work (which has since been funded) for continued ERDC support for NAN during execution of the Champlain Canal study.



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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