

Federal Return on Investment for Maintenance Dredging

On a number of occasions, Corps HQ staff has said that OMB wants Return on Investment (ROI) as the criteria to evaluate the federal commitment to dredging deep-draft channels. The Corps has no such data and has developed channel availability criteria to measure the usability of the nation's top 59 deep-draft channels. Based on the availability criteria, these channels are at half their project width at project depth less than one-third of the time. However, channel availability data (no matter how relevant to channel users) does not directly answer OMB's ROI question. The Port of Lake Charles has undertaken the exercise below to calculate the federal ROI for dredging the Calcasieu Ship Channel in hopes that a similar national study under the auspices of AAPA can be undertaken to develop the national ROI on dredging. Individual ports could then frame their ROI analysis within the context of the AAPA study to justify the maintenance dredge of their channels.

At the Port's request, Martin Associates assessed the "Economic Impact of the Port of Lake Charles." Martin's 2007 report noted that maritime activity on the ship channel generated a total of \$624.7 million in Federal Income Tax collections during 2006. This maritime activity would not take place without the channel being dredged to accommodate the 58.4 million tons of cargo that moved through the Port in 2006¹. But Income Tax generated by maritime activity is only one element of the federal ROI for channel dredging (albeit a large part). According to a 1999 GAO report² (the latest information available), 11 federal agencies levied 124 assessments on commercial maritime activity which generated nearly \$22 billion in collections into the U.S. treasury during 1998. The lion's share of these collections was from U.S. Customs and the Harbor Maintenance Tax (HMT).

At the port's request, Dr. Daryl Burckel, a professor in the Department of Accounting, Finance, and Economics at McNeese State University, estimated HMT and Customs collections on the Calcasieu Ship Channel in 2006 to be \$12.6 million and \$128.6 million respectively. When these items are added to federal income tax collections, the total dollars into the federal treasury from maritime activity in the Port of Lake Charles for 2006 was \$765.9 million.

In FY 06, the Corps' budget for the Calcasieu Ship Channel was \$9 million. The actual funding needed for the channel was \$35 million. Thus, the ROI to the federal government based on the channel budget was 8510%; had the channel been fully funded, the ROI would have been 2188%.

In the future, the funding needs of most ports will increase. For example, funding for the Calcasieu River and Pass Project will increase significantly as the result of a Dredge Material Management Plan (DMMP) now in its final stages of approval. The funding needed to dredge

¹ Waterborne Commerce of the United States, Calendar Year 2006

² GAO/RCED-99-260 Federal Assessments of Maritime Industry

the Calcasieu Channel during the first 5 years of the DMMP is currently estimated at \$45.5 million in the lowest year and \$56.5 million in the highest year. Using \$56.5 million as the channel's future annual funding needs and \$765.9 million as the future federal return from dredging the channel, the ROI for Calcasieu O&M is 1355%. (With a fully maintained channel, Customs and HMT revenues should increase due to the removal of vessel draft restrictions that ship pilots and facilities impose for safe navigation in shoaled channels.)

Using the above approach, Ports could then build on the basic ROI for their channel by including:

1. Environmental Benefits
 - a. Beneficial use of dredge material,
 - b. Carbon emissions avoided (a channel maintained at project depth requires fewer ships to carry the tonnage handled by the port
 - c. Etc.
2. Other benefits (specific to each port) could also be included. For example,
 - a. If the port is designated a strategic port by the Army's Surface Deployment and Distribution Command (or its counterpart in branches of the military), those implications should be addressed in the port's dredging justification,
 - b. Likewise, if the port is a strategic energy port, those implications should be addressed in the port's dredging justification,
 - c. Etc.

The Port of Lake Charles recommends that at the January 2010 meeting of AAPA's HNE Committee the matter of establishing a nation-wide ROI for maintenance dredging be discussed and a path forward for achieving this goal be determined.

January 2010