Case Study: Poplar Island, Chesapeake Bay

A consortium of federal, state, and private organizations is collaborating to restore a once rapidly eroding island in Chesapeake Bay by using material dredged from federal navigation channels serving the Port of Baltimore. This consortium includes the Maryland Port Administration, the U.S. Army Corps of Engineers, and the U.S. Fish and Wildlife Service. The focus of the project is to transport dredged material 25 miles to recreate Poplar Island, which in 1847 occupied more than 1,000 acres. By 1996, the island was reduced to less than four acres.

Starting in March 1998, Poplar Island rebuilding activities began with the construction of containment dikes in two phases: 1) 640 acres at a cost of $59 million in the first 2 years, and 2) 500 acres at a cost of $45 million during the following 3 to 5 years. Using 40 million cubic yards of dredged materials, this project will create 1,140 acres of remote wildlife habitat, 50% of which will be wetlands, while the other half will be uplands.

Through 2005, the total placement of dredged material has been 10.6 million cubic yards and has created 45 acres of tidal marsh habitat. The island is scheduled to stop receiving dredged material in 2015 and is expected to be fully developed by 2021.

Restoring Poplar Island was and continues to be a project initiated by the Maryland Port Administration's (MPA) Dredged Material Management Program (DMMP), which is part of the MPA's 20-year planning cycle. Planning for specific projects by the Port proceeds through the collaboration of three principal committees: Executive, Management, and Citizens. Participants on each committee include federal and state natural resource management agencies, local governments, regulatory and transportation agencies, conservation organizations such as the Chesapeake Bay Foundation, and citizens. All meetings about specific proposals are open to public participation. Proposals such as the Poplar Island project are assigned to work groups made up of professionals from participating agencies as well as citizens.

Although none of the three committees is officially considered a beneficial uses group, beneficial uses are considered throughout the planning and prioritization process. The purpose of broad involvement by stakeholders is to identify concerns to be addressed in project design. As planning progresses, participants discuss and negotiate specific project aspects and objectives. In planning the restoration of Poplar Island, for example, participants extensively negotiated about what percentage of the island would be restored as wetlands. Participating agencies and organizations, each with its own responsibility, used the Poplar Island project as a way to achieve mutually beneficial goals.

To rank projects in order of priority, MPA and other stakeholders use structured decision making involving criteria definition, economic and environmental decision matrices, and fatal flaw analysis. Members of the workgroup and the three committees participate in developing and implementing decision-making tools and procedures. This process yields a short list of options. MPA

prioritizes among these options for potential projects based on factors such as environmental benefits and cost. (MPA estimates that beneficial use projects cost an average of $10 a cubic yard while other less-beneficial disposal methods cost an average of $2 to $2.50 a cubic yard. Given that MPA will be responsible for the management of 110 million yards of dredged material over the next 20 years, the cost of potential projects is an important factor to balance with long-term management goals.) After evaluating potential projects, members select and carry out projects that mutually fulfill beneficial goals for the involved parties as in the case of the restoration of Poplar Island.

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