
Name of Organization: River of Life

Type of Organization: Other

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Project Title: Alternative Disposal Sites for Contaminated Sediments

Project Category: Contaminated Sediments

Rank by Organization (if applicable): 0

Total Funding Requested (\$): 49,800 **Project Duration:** 0.5 Years

Abstract:

Sites of contaminated sediment on the U.S. side of the Detroit River and the Rouge River totalling up to 3 million cubic yards have been identified in previous studies conducted by the State of Michigan and the federal government. What hinders cleanup of contaminated sediments in the Detroit River and its tributaries is the lack of disposal facilities to receive contaminated sediments dredged for remediation purposes. Currently, there is only one confined disposal facility along the Detroit River and that facility is intended for disposal of dredged material for navigational, nor remedial, purposes. The purpose of this preproposal is to conduct a feasibility study of alternative disposal sites for contaminated sediments along the industrialized zones of the Detroit River where the privately-owned sites are likely to already be brownfields based on past use and where the private landowners would likely be receptive to a change in use to accomodate a disposal facility for contaminated sediments.

The major benefit of identifying at least one brownfield site near the Detroit River for redevelopment as a confined disposal facility for contaminated sediments is that several contaminated sediment sites in the Detroit River could be cleaned up, essentially at the same time, that is, with one mobilization of heavy equipment, resulting in a considerable cost savings and a major benefit to the aquatic environment and reduced risk to consumers of fish caught from the Detroit River. The redeveloped brownfield site could be also be used as a pilot study location for emerging technologies to re-use contaminated sediments such as plasma or the cement-lock technology.

The cleanup of contaminated sediments in the Detroit River would be a fitting tribute to the people of Detroit for the City's 300th birthday celebration in 2001 and to the Detroit River, now officially recognized as a National American Heritage River.

Geographic Areas Affected by the Project

States:

- | | |
|--|---------------------------------------|
| <input type="checkbox"/> Illinois | <input type="checkbox"/> New York |
| <input type="checkbox"/> Indiana | <input type="checkbox"/> Pennsylvania |
| <input checked="" type="checkbox"/> Michigan | <input type="checkbox"/> Wisconsin |
| <input type="checkbox"/> Minnesota | <input type="checkbox"/> Ohio |

Lakes:

- | | |
|-----------------------------------|--|
| <input type="checkbox"/> Superior | <input checked="" type="checkbox"/> Erie |
| <input type="checkbox"/> Huron | <input type="checkbox"/> Ontario |
| <input type="checkbox"/> Michigan | <input type="checkbox"/> All Lakes |

Geographic Initiatives:

- | | | | | |
|--|----------------------------------|-------------------------------------|---|---|
| <input type="checkbox"/> Greater Chicago | <input type="checkbox"/> NE Ohio | <input type="checkbox"/> NW Indiana | <input checked="" type="checkbox"/> SE Michigan | <input type="checkbox"/> Lake St. Clair |
|--|----------------------------------|-------------------------------------|---|---|

Primary Affected Area of Concern: Detroit River, MI

Other Affected Areas of Concern: Lake Erie

For Habitat Projects Only:

Primary Affected Biodiversity Investment Area:

Other Affected Biodiversity Investment Areas:

Problem Statement:

There are several contaminated sediment sites along the Detroit River with constituents such as PCBs, lead, mercury, and pesticides/herbicides. These constituents accumulating in bottom-feeding organisms and fish, account for the issuance of fish consumption advisories applicable to local individuals who catch fish from the Detroit River as well as sport fishermen. Locations of most of the contaminated sediment sites along the Detroit River from Belle Isle to and including the Trenton Channel have been identified in reports prepared by the Michigan Department of Environmental Quality. The volume of contaminated sediments in the Detroit River and Rouge River has been estimated at 3 million cubic yards. The problem is that there is no disposal facility in which to place the contaminated sediments, once the contaminated sediments are removed from the Detroit River using environmental dredging. The lack of one or more confined disposal facilities (CDF) is the largest hinderance to the remediation of contaminated sediments in the Detroit River.

It is important to note that land adjacent to the Detroit River is still largely industrialized with access to the industrial areas strictly controlled. Some studies have projected brownfield sites in the City of Detroit that number in the thousands, though there is much uncertainty regarding this number. It is also important to note that brownfield sites that border the Detroit River are productive, underutilized, or abandoned, while other potential brownfield sites have not yet been investigated or identified because no property transfers have yet occurred. A good portion of the industrialized area along the Detroit River is in a designated enterprise zone or renaissance zone. Discussion with a few industrial property owners adjacent to the Detroit River indicated some interest in converting potential brownfield property to re-use as a confined disposal facility for contaminated sediments. The most benefit could be achieved by identifying one or more brownfield sites adjacent to the Detroit River where a confined disposal facility could be designed to retain the existing brownfield contamination and accept contaminated sediments dredged from identified sites in the Detroit River. Given these observations, the proposed feasibility study is the first step in addressing the major problem of where to place contaminated sediments dredged from the Detroit River.

Therefore, the key to remediation of contaminated sediments in the Detroit River is to identify brownfield sites along the industrialized zone of the Detroit River that could be re-developed for use as a confined disposal facility to accept contaminated sediments. The purpose of this preproposal is to conduct a feasibility study to identify the owners of potential brownfield sites or other industrial property along the Detroit River which is suitable for re-development to a confined disposal facility for contaminated sediments. Sooner or later, the problem of disposal of contaminated sediments will need to be faced. This preproposal is the first step in this process. In order to accomplish this first step, the River of Life is contributing a fair amount of personnel services in the form of pro bono work as shown in the Applicant's Match in Tab 7, the Project Budget.

Proposed Work Outcome:

The purpose of the feasibility study is to identify brownfield sites or industrial property close to the Detroit River that could be used as a confined disposal facility for contaminated sediments. The feasibility study is designed to encourage a voluntary response of owners of brownfields or private industrial land owners along the River to dedicate a portion or all of their property to re-use as a confined disposal facility. Converting existing brownfields to re-use as a confined disposal facility should provide a disposal cost savings to owners of brownfields. Voluntary donation of a brownfield property to re-use as an upland or in-river confined disposal facility would also be preferable to receiving a possible consent order in the future.

The proposed work includes:

(1) conducting a feasibility study to identify brownfield sites or industrial properties near or on the Detroit River that could be re-used as upland or in-river confined disposal facilities for contaminated sediments dredged from the Detroit River;

(2) meeting with industrial land owners and/or owners of brownfields to discuss the need for a confined disposal facility for contaminated sediments from the Detroit River and assess their interest in donating all or a portion of their property (as mentioned previously, discussions with a few industrial property owners indicated some interest in this concept);

(3) meeting with interested community groups, members of churches including those with environmental stewardship programs, and members of interested environmental or community groups to identify their concerns with the proposed confined disposal facilities for contaminated sediments near the Detroit River;

(4) to conduct an analysis of the brownfield and/or industrial properties identified for re-use as confined disposal facilities including economics of one location versus another location to minimize the transport cost of contaminated sediments, such as proximity to terminals to unload contaminated sediments; proximity to the Detroit River; proximity to residential areas; types of contaminants on brownfield properties identified as proposed sites; type of soil to complement containment cells; interest in setting aside a portion of the proposed site for testing alternative treatment technologies such as plasma or cement-lock technologies in order to render contaminated sediments re-usable; and community support for the re-use alternative as a confined disposal facility.

The outcomes or deliverables of the proposed work include:

(1) identification of brownfield or industrial properties where the property owners have indicated an interest in donating a portion or all of their property to re-use as a confined disposal facility;

(2) summary of the major points raised at meetings with the individual brownfield and/or industrial property owners;

(3) summary of the major points raised at meetings with community groups and church groups along the Detroit River;

(4) an analysis of the economic feasibility, technical feasibility, facility design difficulties or suitability of the property for re-use as a confined disposal facility; community support or lack thereof; and institutional considerations that industrial owners may seek, such as covenant-not-to-sue agreements;

(5) a feasibility study summarizing points (1) - (4); identification of the preferred sites for re-use as confined disposal facilities; and recommendations for next steps to select one or more sites and begin the process of designing the re-use of the land for a confined disposal facility for contaminated sediments from the Detroit River.

Project Milestones:	Dates:
Project Start Date on CDFs	05/2000
Prepare Map of Contamin. Sediment Sites	06/2000
Meet with Brownfield Property Owners	06/2000
Meet with Churches, Community Groups	07/2000
Economic Analysis of CDF Sites	09/2000
Technical Feasibility of CDF Sites	10/2000
Analysis of Preferred CDF Sites	11/2000
Project End - Feasibility Study Report	11/2000

Project Addresses Environmental Justice

If So, Description of How:

Detroit is a city with a high percentage of low-income minority populations, particularly in the mixed neighborhoods that border the industrialized zones along the Detroit River. Many lower income individuals fish along the banks of the Detroit River and consume their catch. The downriver communities withdraw their drinking water directly from the river. The downriver communities also represent the second highest water recreational demand in the State of Michigan.

Environmental justice concerns as well as environmental stewardship would be well-served by the cleanup of contaminated sediments in the Detroit River. The cleanup of contaminated sediments would provide a healthy aquatic habitat, a healthy fish population, enhance water quality, and enhance weater recreational demand for communities along the Detroit River.

Removal of contaminated sediments by dredging means that the contaminated sediments have to go somewhere. That is why this proposed feasibility study directly addresses the issue of identifying brownfield sites and other industrial properties along the Detroit River for re-use as confined disposal facilities to receive the contaminated sediments generated in the cleanup of the Detroit River. By so doing, environmental justice and environmental stewardship are also well-served.

Project Addresses Education/Outreach

If So, Description of How:

This proposed feasibility study of locating brownfield and other industrial properties for potential re-use as confined disposal facilities, by its very nature, addresses education and outreach of the communities adjacent to the Detroit River. Specifically, there will be meetings with brownfield and industrial property owners along the Detroit River to educate them of the need for land to be donated to the re-use of a confined disposal facility for contaminated sediments generated from the cleanup of the depositional zones along the Detroit River and the possible advantages to them. There will be meetings with environmental stewardship committees in the Churches of the communities along the Detroit River. There will also be meetings with community and environmental groups to educate them on the proposed cleanup of contaminated sediments along the Detroit River; to listen to their concerns; and to address their concerns as much as possible.

More than perhaps most other projects, this proposed project must address the education and outreach concerns to the industrial and community groups to succeed in obtaining a win-win situation for re-using existing brownfield or other industrial property as a confined disposal facility for contaminated sediments along the Detroit River. This project will also need to provide assurances, through substantive evidence, that a proposed confined disposal facility can be and will be designed to protect the Detroit River and the people that live in the communities along the Detroit River.

Project Budget:

	Federal Share Requested (\$)	Applicant's Share (\$)
Personnel:	46,300	14,457
Fringe:	0	0
Travel:	0	0
Equipment:	0	0
Supplies:	3,500	500
Contracts:	0	0
Construction:	0	0
Other:	0	0
Total Direct Costs:	49,800	14,957
Indirect Costs:	0	0
Total:	49,800	14,957
Projected Income:	0	0

Funding by Other Organizations (Names, Amounts, Description of Commitments):

The River of Life organization cannot provide funds, but it can provide personnel time in the environmental stewardship groups of churches along the Detroit River. It is an effective means of public participation incorporating people of all income levels in the environmental stewardship groups in churches along or near the Detroit River.

Description of Collaboration/Community Based Support:

This preproposal was initiated by a discussion with a few industrial property owners near the Detroit River on a need for a confined disposal facility and their preliminary expression of interest. A necessary element of this preproposal is meeting with owners of brownfields and other industrial property owners along the industrialized zone of the Detroit River. This project demands the input and collaboration of industrial property owners along the Detroit River.

This preproposal of identifying potential brownfield sites or other industrial properties for re-use as a confined disposal facility for contaminated sediments is unique in that it enlists the volunteer services of environmental stewardship groups in churches along the waterways.

River of Life began with a seed grant and now serves as an umbrella group for environmental stewardship groups in churches. The Clinton River of Life was its first undertaking and resulted in identifying sources of pollution entering the Clinton River and nearby lakes of the watershed, developing programs to educate individuals about the effects of urban sprawl on drains and sewer systems, and in educating farmers in controlling surface water runoff from their fields into the Clinton River. Its second undertaking is the Detroit River Watershed Project. The goal of the River of Life is to incorporate an environmental stewardship attitude in all the major watersheds in southeastern Michigan.

Specifically, the River of Life will contact churches and faith-based organizations near the Detroit River to educate the members of the communities and to seek their participation in environmental stewardship programs for the River, and particularly, the program related to the cleanup and disposal of contaminated sediments.

This is an innovative, motivational, approach as it has the capability of incorporating people of all races and income levels, and not just special interest groups.