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**Name of Organization:** United Earth Fund

**Type of Organization:** Other

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**Project Title:** Media & Edu. support for Sediment Remediation Results

**Project Category:** Contaminated Sediments

**Rank by Organization (if applicable):** 0

**Total Funding Requested (\$):** 32,000 **Project Duration:** 1.5 Years

**Abstract:**

This project documents & disseminates the results of Evaluating Ecosystem Results of Sediment Remediation, undertaken by Wayne State University (WSU) & the Greater Detroit American Heritage River Initiative (AHR), making the information available to all stakeholders in the LaMP & the Great Lakes area. It will be useful to scientists & community leaders debating future remediation projects and to lay people, teachers and students. The focus will be on tangible results & effects accomplished by sediment remediation projects in 9 designated areas, noting recent progress, challenges, & ecological benefits of sediment remediation in a historical, scientific & engineering perspective: Rouge River-Evans Products Ditch Site & Newburgh Lake; Detroit River-Carter Industrial Site, Elizabeth Park Marina, Monguagon Creek, Black Lagoon; Huron River- Willow Run Creek; River Raisin- Ford Motor Company Site; Ottawa River- Fraleigh Creek). Timely information on known measurable ecological benefits of sediment remediation at Waukegan Harbor, Illinois & Black River, Lorain, Ohio will also be presented. This will help demonstrate the importance of sediment remediation where enough time has passed to show ultimate benefits. Quantitative data on ecological benefits of sediment remediation at both of these sites is available from the Great Lakes Water Quality Board's Homepage ([www.ijc.org](http://www.ijc.org)) The story will communicate the progress and challenges and help provide the rationale for future remediation projects.

The documentary footage will be recorded on state-of-the-art broadcast quality video, edited & used in several formats. Excerpts will be installed on AHR's web site with links to other sites. Excerpts will be made into PSAs benefiting the AHR Initiative. A broadcast version may also be used as a reference or shown at meetings to educate stakeholders, the community and its leaders. An interactive CD version will have features geared toward university students env. groups & schools.

**Geographic Areas Affected by the Project**

**States:**

- |  |  |
|--|--|
| <input checked="" 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 checked="" type="checkbox"/> Ohio |

**Lakes:**

- |  |  |
|--|--|
| <input type="checkbox"/> Superior            | <input checked="" type="checkbox"/> Erie |
| <input checked="" type="checkbox"/> Huron    | <input type="checkbox"/> Ontario         |
| <input checked="" 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:** Maumee River, Rouge River, River Raisin

***For Habitat Projects Only:***

**Primary Affected Biodiversity Investment Area:**

**Other Affected Biodiversity Investment Areas:**

**Problem Statement:**

As this proposal provides documentation and dissemination for the WSU/AHR proposal, their problem assessment needs to be summarized first. Then additional problems this project will solve are addressed.

Contaminated sediment is a principle concern in RAPs and LaMP, in-place pollutants potentially pose a challenge to restoring 11 of the 14 beneficial use impairments...Therefore, contaminated sediment is viewed as a universal obstacle in restoring uses in the 42 AOCs in the Great Lakes Basin and Lake Erie. The ...Great Lakes Water Quality Board has pointed out that... "much more effort should be placed on forecasting and assessing ecological recovery of an AOC, as well as beneficial use restoration....Therefore, ...much greater emphasis (should) be placed on post-project monitoring of effectiveness...relative to restoration of uses. Clearly, there are knowledge gaps in our understanding of the relationships between contaminated sediment and the 11 use impairments." Therefore, ..."additional research is essential to quantify the relationships between contaminated sediment, known use impairments, the forecast of ecological benefits and monitor(ing) ecological recovery and beneficial use restoration in a scientifically defensible and cost effective fashion." In most AOCs the documentation of the sediment problem has not been quantitatively coupled to the ecological beneficial use impairments. Therefore, stipulating how much needs to be cleaned up, why, and what improvements can be expected to the beneficial use impairment(s) over time has not been possible. A clear understanding of these relationships and...quantification is critical for the development of a complete sediment management strategy. This understanding should provide adequate justification for an active cleanup program, and also represents a principle consideration in the adoption of non-intervention alternative strategies and determining "How clean is clean?"

The proposed project (WSU/AHR) integrates monitoring databases and modeling efforts to evaluate sediment program effectiveness (and other point/non-point source management efforts) based on measuring ecosystem results.

Many of the same concerns are further addressed in this proposal. The documentation of the documenting of the relationship between sediment remediation, restored use and ecological recovery is also a method of documenting the findings. While scientific yardsticks to measure the return of usage by various populations can, in fact, tell the story completely, what we are talking about is the return of life to areas that, in some cases were barren. The audience for this information is not just the stakeholders in RAP and LaMP, or the Great Lakes Basin, but an entire continent asking the same questions as the GLWQA, above. The results of the scientific studies, the monitoring and modeling will of course spread quickly, in scientific terms. But for stakeholders, especially communities, their leaders and those who must fund future remediation efforts, nothing can describe the actual return of life as that commodity which "is worth a thousand words". The video documentary and accompanying educational CD ROM/DVDs are tools to both disseminate the discovered information and to demonstrate a clear rational for future remediation projects. But they are also actually part of the process of gathering information. Scientific information will be gathered in the fashions described in the WSU/AHR

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proposal. The explanation of the data and its interpretations will be done as part of the interview process, as well as through the data itself. The visual record will be made in the before, during and after stages of the projects that are ongoing, or which have not yet begun. Ongoing developments can be recorded in even those projects that are already complete. Thus, this project does more than just document the developed information. It helps synthesize it as well. In an era that demands action, the dramatic use of this information, available interactively on AHR's web site, throughout the process, and interconnecting stakeholders at many different levels once the analyzed benefits are known and can be demonstrated, will present a clear message for all. Here was the problem. Here was the solution. Here are the results, the tangible benefits, not just buried in data, but the "living proof". Here's the next problem. Let's solve it.

### **Proposed Work Outcome:**

This project will document and disseminate the results of the Evaluating Ecosystem Results of Sediment Remediation project undertaken by Wayne State University (WSU) and the Greater Detroit American Heritage River Initiative (AHR). It will do so in a manner that makes the information useful and available to all stakeholders in the LaMP as well as those in the Greater Great Lakes area. Its style will be useful and informative for both scientists and community leaders who need to make decisions on future remediation projects. It will also be interesting and exciting to lay people and students, with interactive CD-ROM or DVD educational versions for use by teachers and students at the university, high school and middle school levels. To accomplish this the primary focus will be on the tangible results and effects accomplished by the sediment remediation projects in the recent past, the present and near future, in nine areas designated in the WSU/AHR proposal and Waukegan Harbor, Illinois and Black River (Lorain), Ohio. Of particular note will be the recent progress, challenges, and ecological benefits of sediment remediation. Also the story of each of these areas will be told, giving each site a historical perspective and finding common relationships between them. The story will also be told from the scientific and engineering perspectives, using the experts and personnel involved in the WSU/AHR project.

The documentary footage will be recorded on state of the art, broadcast quality video, with the appropriate computer generated aids and embellishments. This would be organized, edited and used in several formats.

- a. Excerpts and an overview would be installed as a feature on the AHR web site, with links to other relevant sites. The web site will also have interactive capacities that will function much like the interactive CD ROM/DVDs (below).
- b. Shortened versions would be made into Public Service Announcements benefiting public understanding of the AHR Initiative. These would be shown over local broadcast and cable television as their schedule allows.
- c. A broadcast version, with considerable detail, aimed at the various stakeholders that may be used as a reference or shown at meetings to educate and involve stakeholders, members of the community and community leaders.
- d. Two interactive CD ROM/DVD educational versions can be made. One will be a version of item c, above, with features geared toward university students and environmental or community groups. The second will be slightly less detailed, but contain more interactive features for either high school or middle school. Both versions will be instructionally designed to have ideas for student projects and access to the scientific data.
- e. With additional funding, (not part of this request), this documentary can be re-edited for PBS oriented broadcast.

The WSU/AHR project will study, profile and demonstrate the benefits, as well as the problems, in the sediment remediation projects in nine areas within the western Lake Erie/Detroit River basin:

Rouge River - Evans Products Ditch Site and Newburgh Lake;  
Detroit River - Carter Industrial Site, Elizabeth Park Marina, Monguagon Creek, Black Lagoon;  
Huron River - Willow Run Creek; River Raisin - Ford Motor Company Site;  
Ottawa River - Fraleigh Creek).

To put this work into a larger context, timely information on known measurable ecological benefits of sediment remediation at Waukegan Harbor, Illinois and Black River, Lorain, Ohio will also be presented. This will help demonstrate the importance of sediment remediation in an area where there has been a long enough passage of time to show ultimate benefits that will not be occurring at the nine sites covered, within the time frame of this project. Old footage will be researched, and used to show the "before" images at these sites. Quantitative data on ecological benefits of sediment remediation at both of these sites is available from the Great Lakes Water Quality Board's Homepage ([www.ijc.org](http://www.ijc.org)).

By documenting the process and developing a vibrant visual palate to demonstrate the results, the AHR will help tell the story of contaminated sediment remediation in key areas, communicate the progress and challenges and help provide the rationale for future remediation projects. It will be able to show quite plainly: here are the problem areas, here are the things

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we can do, here are the things we can't do, here are the results. As the benefits are best described visually in terms of benefits to the fish, birds, other wildlife, and risk to human health, these will be the dominant images. There will also be striking imagery accompanying the scientific explanations of the problems and solutions, as well as coverage of the actual engineering and planning that goes into such projects. Finally, of course, the impact of these projects on the surrounding communities, and the region in general, will be covered using scientists, Native Americans from local tribes, community leaders and everyday citizens to paint the overall picture. \$100 Million has already been spent on these sites. This project will help demonstrate that value received for that expenditure. The AHR will use this in its meetings with community organizations and community leaders, in developing future projects. AHR will possibly work with guidance from Project NEMO (Non-Point Education for Municipal Officials), headquartered in Connecticut, to develop a program similar to theirs, that will use this documentary and its accompanying resources in an education program for communities and their leaders.

The documentary is being produced by United Earth Fund (UEF), a tax-exempt 501C3, educational organization, Tellus News Networks (TNN) and the Greater Detroit AHR Initiative. UEF and TNN have been working closely with John Hartig, the Detroit River Navigator, for the past several months. They have already accumulated background footage on some of the sites, such as the Detroit River's Black Lagoon. Narrated by Dr. Hartig, many of these are already running on the UEF and TNN web sites ([www.unitedearthfund.org](http://www.unitedearthfund.org) and [www.tellusnews.com](http://www.tellusnews.com)). They also HAVE worked together to greatly upgrade the Detroit AHR web site and have already had a very positive impact on its format, look and usefulness. Also the site is now up to date, with weekly updates and enhancements. UEF and Tellus have also been contracted by the AHR to make a documentary feature on the Greater Detroit AHR in general and they are working together on a History of Detroit and its River, for Detroit's 300th Anniversary. Some footage from these may be used to enhance this project. Some footage from this project may enhance the other two. This sharing of resources makes it possible to create a product with high production values, very efficiently and inexpensively.

#### Proposed Work/Outcome

Work is beginning this spring, getting video footage of the current status of the nine sites, as well as several others that Dr. Hartig expects to be worked on in the future. As in the short piece already made on Black Lagoon, the current status, the history, the problems, the plans and the expected results will all be captured from the present time perspective. Funding requests have been submitted to the Mott Foundation, among others, for script writing and creating an exciting curriculum for the use of the educational CD ROM/DVD versions. As soon as these funds are secured, these portions of the project will begin. Additional funding is also being sought to cover this early work. Gathering of current information, on camera, will continue as long as this early funding allows. Certain portions will be edited into short PSA style videos for use on the AHR web site, as well as the UEF and TNN sites. Besides their informative value, these will be used to help raise additional funds for the project for further educational development and for creation of a PBS style documentary of the final project.

Also during the spring the various scientific experts and engineers involved will be interviewed to plan the main work which begins in the summer and fall. Some of these interviews will be taped as part of the early work, especially when the information helps paint an accurate statement of each sites history, problems, plans and expected results. Some additional footage will also be taken in areas that have already gone significant remediation

Over the 1.5 years of the WSU/AHR project the production team will stay involved in the projects progress, and arrange the production schedule based on the progress of the WSU/AHR project. It is expected that work will be completed earlier on some sites, than on others. As that happens "production shorts" on those sites will be edited and shown on the 3 Internet sites as project updates. The determination of the exact schedule is totally reliant on the schedule determined by WSU and AHR.

Web site excerpts, PSAs and other production shorts, that may be used for various public forums, based on AHR's needs, will be created from time to time throughout the 1.5 year period of the grant. Some footage may also appear as background material for news coverage. The final product will be finished within 30 days of the end of the WSU/AHR study, with the educational CD-ROM / DVD versions available in the spring of 2002.

Throughout the project there will also be work done to include educators in the development and dissemination of the interactive educational CD ROM/DVD versions. The plan is to try to combine these with National River Cleanup Week 2002. Interactive capacities using the footage available will be experimented with on the UEF web site throughout the project.

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<b>Project Milestones:</b>	<b>Dates:</b>
Plan,Script,Shoot early "setup" programs	09/2000
Intrim productions for web & broadcast	11/2000
Instructional dev. for edu. CD-ROM/DVDs	12/2000
Develop final script & data design	05/2001
On site taping gather additional footage	10/2000
Final production- 45-60 min documentary	11/2001
CD/DVD creation + 9 s.r. site "features"	12/2001
Production & Dissemination CD/DVDs & Web	02/2002

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Project Addresses Environmental Justice

**If So, Description of How:**

This project addresses PCB contamination in Southeast Michigan and other areas of the Western Lake Erie watershed, providing a synthesis of data and information relative to the effectiveness of sediment remediation in these areas.

This project will provide necessary knowledge to better address environmental justice issues in Southeast Michigan and will do so in a fashion that is both informative, educational and is aimed at the broader community as a whole.

The interactive educational CD ROM/DVD versions of the project will cover the Environmental Justice Issues involved, demonstrating other instances of environmental injustice and suggesting further possible action based on the results of the information gathered.

Project Addresses Education/Outreach

**If So, Description of How:**

The project will have a large public education and outreach component. The documentary will be used extensively for the binational forum for the discussion of the data and information, and be presented at meetings of the Lake Erie LaMP, the Four Party Agreement for the Detroit River, the Detroit, Rouge, Raisin, and Maumee River RAPs, and the Greater Detroit American Heritage River Initiative, including the interactive CD ROM version.

The interactive CD version will also be sent to SEMi school system that wants to use it as an educational tool in the classroom, or as part of an after school or enrichment program, along with a curriculum guide for its usage. It will get continued usage as part of the core program at Detroit's Sankore Maritime Immersion School and Academy. As additional funding is found it can also be distributed throughout the Great Lakes and the nation, as desired.

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**Project Budget:**

	<b>Federal Share Requested (\$)</b>	<b>Applicant's Share (\$)</b>
<b>Personnel:</b>	20,000	12,000
<b>Fringe:</b>	1,200	500
<b>Travel:</b>	1,600	0
<b>Equipment:</b>	4,800	2,000
<b>Supplies:</b>	1,400	2,000
<b>Contracts:</b>	3,000	5,000
<b>Construction:</b>	0	0
<b>Other:</b>	0	4,500
<b>Total Direct Costs:</b>	32,000	26,000
<b>Indirect Costs:</b>	0	0
<b>Total:</b>	32,000	26,000
<b>Projected Income:</b>	0	0

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

**Project Funding**

The project has received \$2000 in early funding, that will be used for early production work, another \$8,000 is being sought from a number of local foundations. A \$30,000 application is being considered by the Mott Foundation for the educational curriculum development and scripting, for this and several other projects that UEF and TNN are working on for the AHR. The portion of that grant that will apply to this project is \$8,000. \$15,000 in additional funds will be sought to disseminate the final product form local corporate sponsors, particularly Daimler Chrysler, Dayton-Hudson and Ford.

If this project were done with a commercial production house, costs would be \$150,000. The justification for the \$58,000 budget is that TellUs uses all own equipment, no actors, no studio cost for outdoor shoots. Normal production costs, for a quality production begin at \$1,000-1500 per finished minute at the low end. By using UEF volunteers and Tellus owned studio and equipment the cost per finished minute to \$800.

In kind considerations also reduce project costs. Dr Hartig's time and that of the experts and other personnel that are the subjects will all be contributed, as will educational advise from UM's United Earth Fund Chapter. Tellus's billing for editing time is for personnel only, not for \$30,000 in editing suite fees.

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**Description of Collaboration/Community Based Support:**

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**Collaborations**

This project is a structural collaboration between the Greater Detroit American Heritage River Initiative, United Earth Fund, a tax exempt, 501C3 educational corporation and Tellus News Networks, an environmental news network and web portal. It is also a collaboration with Wayne State University with whom the AHR is conducting the project that is being documented. Other organizations will also be involved in both the study and the documentation process. These are Friends of the Detroit River, the University of Michigan Chapter of the UEF, the Huron River Watershed Council, the Friends of the Rouge River and the Raisin River Watershed Council. Key participants in the WSU/AHR project will also participate, including; Canada Dept. of Fisheries and Oceans, University of Windsor's GLIER, U.S. Geological Survey, Canadian Wildlife Service, Mich. Dept. of Environmental Quality, Ohio EPA, National Water Research Institute, U.S. EPA's LLRS and GLNPO, Lake Erie LaMP, Detroit River RAP and the Four Part Agreement for the Detroit River, the Maumee River RAP; River Raisin RAP, Rouge River RAP. Connecticut's Project NEMO will be consulted in the design of a campaign that disseminates the gathered information, the documentary and accompanying resources as an educational tool for communities and their leaders.

Collaborations on the educational portions of the project will include the UM School of Education, the Mott Foundation and the Michigan Information Network. Students and teachers at Detroit's Sankore Maritime Immersion School and Academy

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and the School Ship program, run by Dr. Bruce Jones of the Grosse Isle Land and Nature Conservancy will be involved in developing the educational curriculum for the interactive CD ROM/DVD versions. Their students may appear in the documentary.