

## Great Lakes Restoration Initiative Request for Proposal Cover Page

Funding Opportunity Number: EPA-R5-GL2010-1

Focus Area: Toxic Substances and Areas of Concern

Program I.A.9: Pollution Prevention and Toxics Reduction in the Great Lakes

Name of Proposal: *Contaminants of Emerging Concern Product Stewardship Initiative*

Points of contact:

**Authorized Organization:**

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DUNS Number: 080480584

Type of organization: H – Public/State Controlled Institution of Higher Education

Brief Project Description: The *Contaminants of Emerging Concern Product Stewardship Initiative* is a two-year cooperative effort to implement a comprehensive pharmaceutical and personal care products waste collection, awareness and education, and product stewardship program to prevent toxic discharges to the Great Lakes and improve water quality and wildlife and fish habitat. This initiative will expand the Wisconsin pharmaceutical waste mail back program throughout the state's Great Lakes basin, support existing pharmaceutical waste working groups, initiate additional working groups in other Great Lakes states, and sponsor both local government and industry product stewardship dialogs that will lead to a model public policy program framework.

Proposal Funding Request: \$807,921

Project location: Great Lakes basin watershed in WI, IL, IN, MN, MI

## Project Description

Numerous contaminants of emerging concern, including pharmaceuticals and personal care products (PPCPs), have begun to appear in the Great Lakes Waterways and are not easily treated by water supply and waste water treatment plants. Research has also shown that up to 40% of prescribed pharmaceuticals are not used up by patients annually. As a response to this problem, a number of innovative consumer collection programs have been initiated in Wisconsin, including a two county pilot mail back program funded by the WI DNR Office of Great Lakes and the EPA Great Lakes National Program Office. Although these programs have been successful in raising public awareness of the problem, they are not sustainable as a basin wide strategy alone. Upstream causes to the problem need to be addressed by key stakeholders as a pollution prevention strategy, while collection program implementation and disposal costs should be addressed through product stewardship.

This two year initiative represents a partnership between the University of Wisconsin – Extension (UWEX) and Associated Recyclers of Wisconsin (AROW), IL-IN Sea Grant Program (Sea Grant), WI Department of Natural Resources (WI DNR), Product Stewardship Institute (PSI), and the Midwest Product Stewardship Council (MPSC) to implement a comprehensive pharmaceutical waste collection, awareness and education program that lays the groundwork for a product stewardship program. Key tasks include expanding Wisconsin’s pilot **mail back** collection program through out the WI Great Lakes watershed, expanding the WI Pharmaceutical Waste **working group** to include the healthcare sector, developing **parallel working groups** in four other Great Lake states, writing and distributing targeted healthcare sector educational **outreach** materials, hosting **local government forums** in five Great Lakes state, initiating multi-stakeholder product stewardship **dialogs** with industry partnership, and supporting **state initiatives** with research based information and assistance.

This collaborative strategy will result in a number of significant impacts including:

- Over 1.22 million doses and 9,000 pounds of unwanted medicines will be collected from over 19,000 households,
- 95% of participating consumers will no longer dispose of old medicines via flushing or trash disposal,
- The existing Wisconsin pharmaceutical waste working group will be expanded and up to four additional state based pharmaceutical working groups will be formed,
- Five product stewardship dialogs and local government forums will be held, and
- State-specific frameworks for model PPCPs product stewardship programs will be developed and implemented throughout the Great Lakes region.

In addition, this project will save money by providing for a more efficient collection system for unused pharmaceuticals while shifting the cost and responsibility to manufacturers. It will establish a blueprint for a sustainable program that addresses the life cycle of these contaminants. Finally, this project will compliment other projects, including the educational efforts of Sea Grant and other collection programs, which may be funded under this grant solicitation. For contract administration efficiency, it is suggested that this proposal be co-funded under a joint cooperative agreement along with other University of Wisconsin Extension proposals submitted under this solicitation.

With one of the longest shorelines abutting the Great Lakes as well as significant usage for drinking and recreation, Wisconsin is deeply concerned about protecting the Great Lakes. This initiative addresses a key priority of the *Wisconsin Great Lakes Strategy* by providing support to public/private programs and public policy initiatives, including product stewardship approaches, which address emerging PBTs (flame retardants, endocrine disruptors, personal care products, pharmaceuticals, etc.). It also addresses a key component of the GLRI Action plan for

reductions of toxic substances and areas of concern as a strategic pollution prevention project.

### Nature of Proposed Project

In 2006, The UW-Extension and WI DNR established the WI Pharmaceutical Waste working group to begin developing a comprehensive strategy to address this issue. Representing a broad coalition of stakeholders, they have developed a multi-phased strategy, which includes:

- Phase 1 - raising public awareness and understanding via innovative consumer collection programs.
- Phase 2 – broadening educational outreach to the healthcare community, including hospices, in order to reduce their discharges of PPCPs.
- Phase 3 – developing a product stewardship program for long-term management of collection and public awareness efforts by the pharmaceutical industry.

This project builds on the strategy identified by the Wisconsin group. Specific tasks of the project are summarized in the table below. The first three tasks in this table address the Phase 1 public awareness initiative.

Task 1 expands the Wisconsin mail back collection program throughout the 36 Wisconsin counties in the Great Lakes watershed. In 2008, UW-Extension conducted an eight-month pilot mail back program, modeled on the Maine state program, utilizing Capital Returns, a reverse distribution company, to reach over 1,700 households and collecting over 15,000 medicine packets. Task 1 of this project will expand this initial effort by providing a similar service to the 2.5 million people who live in the Wisconsin Great Lakes watershed. An important component of this task will be collection of data on the costs, benefits and sustainability of a mail back collection program compared to other product stewardship type management approaches. Task 1 will also bring key stakeholders from the healthcare sectors into the stewardship process. Their contribution to this problem is increasingly well recognized, with the healthcare sector generating significant quantities of pharmaceuticals. The healthcare sector is increasingly interested in addressing this issue, as demonstrated by the participation of the state pharmaceutical society, WI Healthcare for a Healthy Environment, and hospices in Wisconsin. However, broader participation is needed to fully reduce healthcare's contribution to this waste problem and improve the water quality in the region.

Task 2 seeks to develop parallel working groups in four other Great Lakes states, including Minnesota, Michigan, Illinois and Indiana, based upon the model already underway in Wisconsin. The Midwest Product Stewardship Council members will work directly with state-specific groups to identify preferred product stewardship management strategies for the Great Lakes based upon lessons learned from the take back programs, regional information sharing, and policy tools developed in other states. While a key objective of this project is to establish a model product stewardship strategy framework amongst member states, past experience has demonstrated the need to first create sound state-based working groups before embarking on regional initiatives. For example, the Midwest E-Waste Policy Group's success was based upon strong support networks in the individual states, which contrasts with other examples where the lack of parallel state based organizational structures proved to be a barrier to regional product stewardship initiatives.

Task 3 addresses the important need for coordinated outreach and public relations by developing outreach material on ways to reduce the quantity of pharmaceuticals that go to waste, the environmental and health risks associated with landfill or wastewater disposal of pharmaceutical wastes, and sustainable management strategies that engage key sectors involved in the life cycle of pharmaceuticals. Outreach materials will be made available to the

state-based workgroups, the healthcare sector and their partners, and project staff and partners will provide assistance in delivery of outreach materials to targeted groups.

Tasks 4 and 5 address the development of a product stewardship approach to achieve a sustainable collection program. Cost and collection data obtained from existing programs in the region and elsewhere in the country will be analyzed to develop a consistent pharmaceuticals management model. This phase will also build upon the initial work of the Product Stewardship Institute regarding this issue by sponsoring a multi-pronged dialog with key product stewardship leaders in the Great Lakes region and the pharmaceutical, pharmacy, and waste industries. A model product stewardship program will be developed based on data and other lessons learned from both within the Great Lakes region and other states. In addition, the state working groups developed in Task 2 will be directly connected to the dialog with industry.

Tasks 6 and 7 will provide for project evaluation, state progress monitoring and reporting as required by the Environmental Protection Agency.

This project also represents a broad partnership between state and local governments, the healthcare industry, and not-for-profits. Each collaborative partner brings specific skills and knowledge to this project for implementation of the tasks as outlined in the following table and further elaborated in the collaboration section. Partners include the Associated Recyclers of Wisconsin (AROW), IL-IN Sea Grant Program (Sea Grant), WI Department of Natural Resources (WI DNR), Product Stewardship Institute (PSI), and the Midwest Product Stewardship Council (MPSC). The key tasks, implementation strategy and lead partner for each task include the following:

<b>Task</b>	<b>Implementation Steps</b>	<b>Lead Partner</b>
1. Expand the <b>mail back</b> collection program through out the 36 counties that are part of the WI Great Lakes watershed.	<ul style="list-style-type: none"> <li>a. Communicate with the US Drug Enforcement Agency regarding mail back program</li> <li>b. Develop and issue RFP for a reverse distribution vendor to manage materials</li> <li>c. Publicize and distribute mail back envelopes through pharmacies, law enforcement, health centers and mass media</li> <li>d. Track collection results monthly</li> <li>e. Expand the WI Pharmaceutical Waste working group to include the healthcare sector, including hospices</li> </ul>	<p>UW</p> <p>UW</p> <p>UW/AROW</p> <p>UW</p> <p>WI DNR</p>
2. Develop <b>parallel working groups</b> in 4 other states (MN, IL, MI, IN)	<ul style="list-style-type: none"> <li>a. Document PPCPs collection efforts in the 5 target states</li> <li>b. Work with the Midwest Product Stewardship Council to identify key stakeholders</li> <li>c. Provide a local government forum in each state utilizing existing planned conferences/workshops.</li> <li>d. Host biannual work group meetings</li> <li>e. Mentor the development of state working groups</li> </ul>	<p>UW</p> <p>MPSC/AROW</p> <p>MPSC/UW</p> <p>MPSC/UW AROW</p>
3. Coordinate <b>public relations and outreach</b>	<ul style="list-style-type: none"> <li>a. Develop PR strategy to insure broad consumer participation</li> <li>b. Working with Sea Grant, utilize educational materials for consumer and healthcare outreach</li> <li>c. Produce informational brochures and flyers</li> <li>d. Develop &amp; distribute pre-evaluation tool to measure behavior change</li> </ul>	<p>WI DNR/ AROW AROW/Sea Grant</p> <p>UW</p> <p>UW</p>
4. Convene multi-stakeholder product stewardship <b>dialog</b> with industry partnership	<ul style="list-style-type: none"> <li>a. Identify and engage key stakeholders, including from industry, state working groups, environmental organizations, federal agencies, and others</li> <li>b. Design and facilitate dialog meetings, including extensive preparation with state working groups, industry groups, and other stakeholders</li> <li>c. Develop model product stewardship program, documenting areas of stakeholder agreement and disagreement.</li> </ul>	<p>PSI/AROW</p> <p>PSI</p> <p>PSI/UW</p>
5. Provide biannual white papers to <b>document state progress</b> in collecting, stewardship initiatives, and goal achievement	<ul style="list-style-type: none"> <li>a. Publish white papers based upon dialog and work group lessons learned and distribute to policy makers</li> <li>b. Host a regional webinar outlining progress and next steps</li> </ul>	<p>AROW</p> <p>UW</p>
6. Monitor <b>implementation</b> of product stewardship strategy	<ul style="list-style-type: none"> <li>a. Conduct an evaluation survey to determine consumer changes</li> <li>b. Publish collection results on the web and in news media</li> </ul>	<p>UW</p> <p>UW</p>
7. Report results	<ul style="list-style-type: none"> <li>Submit semi-annual progress reports</li> <li>Provide final report</li> </ul>	<p>UW</p> <p>UW</p>

## Project Relevance

The *Contaminants of Emerging Concern Product Stewardship Initiative* addresses a number of relevant goals of Great Lakes Restoration Initiative action plan, the Great Lakes Regional Collaboration Strategy and state-specific Great Lakes strategy plans. Specific goals (1, 2, and 4) reflected in the action plan include:

Goal 1: To create a long term and sustainable infrastructure to prevent the release of PPCPs containing toxic substances to the Great Lakes basin ecosystem.

Goal 2: To reduce the impacts of PPCPs on aquatic life in order to allow for the consumption of Great Lakes fish by improving the health and sustainability of Great Lakes ecosystems.

Goal 4: To protect the health and integrity of wildlife populations and habitat which are impacted by the adverse chemical and biological effects associated with the presence of toxic substances in the Great Lake Basin.

In addition, this project will improve the health of the Great Lakes by measurable reduction of wastes containing persistent toxic substances (PTS) utilizing a cost effective pollution prevention strategy that can reduce PTSs at the source. If a persistent toxic substance is reduced or eliminated at its source, the long-term capital investment in regulation, control and clean up of that PTS is also reduced. Often pollution prevention efforts impact multiple toxic substances and result in synergies that positively impact the natural environment, economic growth and equitable social conditions at the same time.

The proposed project incorporates a key goal of the 2009 updated WI Great Lakes strategy in addressing new chemicals of concern and by supporting public/private programs and public policy initiatives including product stewardship. This project will also improve the water quality and reduce toxic discharges by addressing specific beneficial use impairments identified in Lakes Superior and Michigan Lake Area Management Plans, as well as "Areas of Concern" as defined by the Great Lakes Water Quality Agreement. Beneficial use impairments addressed by this project include restrictions on fish consumption, degradation of fish and wildlife habitat, and fish tumors and other deformities.



## Project cost efficacy

The University of Wisconsin will serve as lead grantee, with partner agencies serving as sub-contractors thereby reducing the overhead associated with multiple EPA contracts for similar activities. For contract administration purposes, it is suggested that this proposal be co-funded under a joint cooperative agreement along with other University of Wisconsin Extension proposals submitted under this solicitation.

The project partners have a strong basis of existing relationships and shared purpose that will enhance project implementation. For example, all participating states are members of the Product Stewardship Institute, which benefits in turn from having Board Members who also serve on the Midwest Product Stewardship Council. AROW provides a direct link to the local agencies and other state's recycling organizations. IL/IN Sea Grant is a national leader on the drug take-back issue and has been a past participant in PSI's ongoing waste pharmaceuticals initiative. The efficient implementation of this project will be further enhanced by:

- 1) Building on the existing reverse distribution infrastructure, which provides an experienced and efficient private sector operation for the mail-back program, while significantly reducing the greenhouse gas emissions associated with the typical one-day drop off programs.
- 2) The MPSC and PSI will provide existing contacts in the states to support the development of the state working groups, which, in turn, will be modeled off of the successful group already underway in Wisconsin.
- 3) The dialog component of the project will build on PSI's extensive experience with both other states' efforts and contacts and relationship with the target industries.

This project will save costs for state and local government in the long-term by creating product stewardship models for the sustainable management of residential pharmaceutical waste. While both Wisconsin and Maine have demonstrated the viability of a mail-back system, and other states in the region have piloted other take-back models, none of these programs is able to function to its full potential or last past a short-term pilot period without a sustainable funding source. The product stewardship approach pursued through this project will establish a system in which all players contribute according to their respective roles, but with the primary financial responsibility resting with the pharmaceutical manufacturers. Coming together as a region to negotiate with pharmaceutical companies and other players will provide the Great Lakes states with the best possible chance of success, as it is often in the best interest of companies to avoid a patchwork of state laws. At the same time, there may well be other legislative models already being implemented outside the region, which will provide an additional incentive for industry participation.

## Education and outreach plan

Numerous aspects of this project include education and outreach of citizens, policy makers and businesses as described above. These include the development of publicity materials, the formation of working groups, conducting industry dialogs, hosting workshops, and publishing results. Furthermore, linkages to the national Product Stewardship dialog will allow lessons learned to be shared within each state, throughout the Great Lakes Region, and nationally. Addressing the concerns of the healthcare sector regarding this issue will involve a strong, effective new partner that has significant outreach capabilities to consumers and practitioners. Finally, it is the intention of this project to partner with the fish advisory outreach initiative that is being funded under this solicitation by collaborating wherever possible.



## Outcomes, Outputs, and Expected Results

Preventing and reducing the release of persistent toxic substances to the Great Lakes basin while reducing the level of toxics enabling the lifting of restrictions on fish consumption will be the primary outcome of this project. By reducing releases of pharmaceutical chemicals, the health and integrity of the wildlife populations and habitats will be protected from adverse chemical and biological effects. Furthermore, another outcome of this effort will be contaminant reduction to the region's drinking water supply that will help address the inability of drinking and waste water treatment plants to treat PPCPs. An additional outcome of this project will be a significant change in consumer and business disposal practices regarding PPCPs. There will also be an increased awareness by the public of the real costs in health care expenditures and the environmental cost of flushing old medicine. Finally, in addition to these environmental outcomes, the long term financing and industry participation in product stewardship will lead to a sustainable product management outcome based upon the additional knowledge gained by the expansion of the mail back program and other state initiatives.

The prevention of releases of unwanted medicines into the Great Lakes is the primary output of this project. White papers and reports will quantify the amount and types of pharmaceuticals collected and the cost of collection and disposal. The pre and post evaluation will measure behavior and attitude changes regarding safe disposal practices by Wisconsin Great Lakes basins consumers.

The expected results of this project include:

- Based upon the results in Wisconsin and Maine<sup>1</sup>, 1.6 million doses and over 12,000 pounds of unwanted medicines will be collected from over 26,000 households;
- 95% of participating consumers will no longer dispose of old medicines via flushing;
- Four new state based pharmaceutical working groups will be formed
- Five product stewardship dialogs and local government forums will be held
- A model product stewardship program will be developed throughout the Great Lakes region that will serve as a national model.

## Collaboration, Partnerships, and Overarching Plans

The *Contaminants of Emerging Concern Product Stewardship Initiative* represents an important collaboration between local, state and national partners concerned about the Great Lakes. Each organization has been active in both product stewardship and PPCPs reduction activities and provides important expertise for the projects success. Each partner organization and key lead personnel are described below:

*Associated Recyclers of Wisconsin (AROW)* – AROW is a 501(c) (3) non- profit association that provides statewide proactive leadership on waste reduction and recycling through education, advocacy, collaboration, programs and services. AROW has been instrumental in encouraging both local government and private recyclers to reduce and recycle waste through out Wisconsin. AROW's 1.0 FTE funded by this project will accomplish the following:

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<sup>1</sup> Maine averaged 62.33 pills at .46 pounds per envelope during their first year. Wisconsin's 8-month mail back pilot resulted in 1750 participants serving one fifth of the population in the WI Great Lakes geographic area. Project projected participation rate = 218 envelopes per month \*18 months \* 5 times population served or 19,687 households.

- Develop and support stakeholders
  - Plan and implement regular conference calls/emails with committee members and post agendas and minutes.
  - Train and recruit committee members to attend a minimum of 10 presentations/meetings to educate and garner support from stakeholders.
  - Use the annual Wisconsin Integrated Resource Management Conference ([www.regonline.org/WIRMC](http://www.regonline.org/WIRMC)) as an opportunity to raise awareness, educate, and facilitate discussion through a workshop, training or session.
  - Work with Midwest Product Stewardship Council and other state, regional, and national associations to identify issues, track legislation, and connect with producers.
  - Provide networking/professional development opportunities (such as state, regional, national workshops and webinars) for committee members to develop skills and knowledge about Product Stewardship.
  - Collaborate with other Midwestern States' product stewardship initiatives (MN, MI, IL, IN)
- Develop education/promotion materials
  - Identify/develop the best tools and materials to build knowledge and awareness of product stewardship opportunities and establish a clearinghouse of information.
  - Develop or modify existing PowerPoint, handouts, brochures, position papers, sample resolutions, guest editorials and press releases.
  - Build Product Stewardship Web page on AROW website where toolkit will be posted including links to and from SHWEC, DNR, SWANA and other applicable websites.
  - Develop list serves and web links.
- Public Relations
  - Develop a public relations plan.
  - Identify meeting/presentation opportunities with prospective stakeholders.
  - Meet with state representatives and provide information about product stewardship initiatives and issues.
  - Identify opportunities and give presentations at local and state conferences and workshops.
  - Develop and distribute press releases, articles, media interviews, and fact sheets.
- Policy Development
  - Develop and implement a public policy education plan.
  - Assist local governments in the adoption of ordinances, resolutions or policies supporting product stewardship principals.
  - Develop position papers on targeted products.
  - Meet with producers and retailers of targeted products.

*IL IN Sea Grant* - combines research, education and outreach to empower southern Lake Michigan communities to secure a healthy environment and economy. IL IN Sea Grant is the national leader in developing and providing educational information regarding PPCPs. In addition, they help communities initiate unwanted medicine collection programs utilizing tools that have been chosen 2007's Best Education Program by the North American Hazardous Materials Management Association (NAHMMA). Key roles in this project include assistance with project design and workshop presentation to state and local government. Susan Boehme, coastal sediment specialist, will lead this effort.

*Midwest Product Stewardship Coalition* (MPSC) - is a group of government organizations that works with businesses and nonprofit groups to integrate the principles of product stewardship into the policy and economic structures of the Midwestern United States. All of the Great Lakes states and many local governments have joined MPSC to further their mission. Key roles of MPSC in this project include outreach to members and other stakeholders, assistance in workshop planning and promotion, and product stewardship program develop. Cynthia Moore,

MPSC co-chair, will lead this effort.

*Product Stewardship Institute (PSI)* - is a national non-profit membership-based organization located in Boston, Massachusetts. PSI works with state and local government agencies to partner with manufacturers, retailers, environmental groups, federal agencies, and other key stakeholders to reduce the health and environmental impacts of consumer products. PSI takes a unique product stewardship approach to solving waste management problems by encouraging product design changes and mediating stakeholder dialogues. Key roles of PSI include the development of product stewardship working groups in the other Great Lakes states, support for stakeholder dialogs, and development of model program information and outreach. Scott Cassel, Executive Director, will provide leadership for PSI and his resume is attached.

- Meeting preparation and implementation
  - Pre-meeting preparation: set up registration, do nametags/table tents, set up phone line
  - Outreach to industry; state working groups, other key stakeholders (individual and group calls)
  - Design meeting (develop agenda, review and refine with stakeholders, arrange presenters and welcome speaker, review and revise speaker presentations, develop PSI slides)
  - Facilitate meeting
- Meeting follow-up
  - Develop meeting summary draft and then final
  - Develop & disseminate strategies/recommendations including model state PS program for PPCPs (and areas of agreement/disagreement)
  - Convene calls with key stakeholder groups to review & finalize recommendations document
- PSI support for other tasks
  - Provide contacts for state working groups
  - Participate in 2 calls for each state working group to prep for dialogue meeting & follow-up
  - Review and provide input on other project documents
  - Prepare quarterly and final project reports, including financial reporting

*Wisconsin Department of Natural Resources (WI DNR)* – As the state’s lead environmental agency, WI DNR is a key resource for addressing both waste and water quality issues. Their partnership in this project will be led by Barb Bickford, their medical waste coordinator, who will provide assistance with outreach to the healthcare sector, as well as expertise in management and membership in the State working groups. Since 1992, she has developed outreach materials (written and on-line) for infectious waste management, medical waste reduction and other healthcare wastes, including pharmaceuticals. She routinely sends technical assistance messages about these and other sustainability-related topics to healthcare facilities statewide. From 2004 to 2007, she organized quarterly workshops for healthcare providers on topics such as hazardous waste management, mercury elimination and pharmaceutical waste. In 2007, Barb helped found Wisconsin Healthcare for a Healthy Environment and actively participates in WH2E’s quarterly workshops and outreach to the healthcare facilities, consultants, and waste management companies.

Several overarching plans are also important to the implementation of this project. These include:

- [AROW’s Product Stewardship Policy](#) (adopted in April, 2009), which defines product stewardship as “a product-centered approach to environmental protection that calls on

those in the product life cycle – designers, manufacturers, retailers, and consumers – to assume primary responsibility for minimizing the product’s environmental impact through all stages of the product’s life cycle and for paying the costs of managing the product at the end of its useful life.”

- The *Report of the Wisconsin Governor’s Task Force on Waste Materials Recovery and Disposal (12/06)*, which recommends a product stewardship approach for potentially hazardous products (i.e. pharmaceuticals and mercury-containing products).
- *Great Lakes Regional Collaboration* and state specific strategies including:
  - *Wisconsin’s Great Lakes Strategy (2009 Update)* calls for support for “public/private program and public policy initiatives to address emerging PBTs (flame retardants, endocrine disrupters, personal care product, pharmaceuticals, etc.)” by “applying principles of product stewardship, product labeling and mandatory sales and disposal bans”.
  - The *MI-Great Lakes Plan* calls for additional funding to accomplish several toxic reductions initiatives, including to “implement additional pharmaceutical collection programs modeled after other successful community-based programs, for example, the Lake Superior Watershed Council’s Earth Keepers Initiative”, while restoring beaches “by controlling pollutants such as phosphorus, pharmaceuticals, and bacterial contamination.”
  - The *MN Lake Superior Basin Plan* calls for the protection of “current and future drinking water sources”, as well as supporting “the important role local units of government play in the protection of water resources” while acknowledging that water resource protection is ultimately more cost-effective than restoration.”
  - *IL Report on Pharmaceuticals and Personal Care Products in Illinois Drinking Water* documents the presence of PPCPs in Lake Michigan and suggests that it is “premature to suggest that the issue of PPCPs in drinking water is resolved at this time”.
- *Lakes Superior and Michigan Lake-wide Area Management Plans* call for continuing to reduce the levels of persistent toxic substance while developing a better understanding of the effects of endocrine disruptors on community health. These plans also stress the need to protect these key drinking water sources by reducing or eliminating “potential sources of contamination”. Additionally, the Lake Michigan LaMP calls for the development of a “strategy to ensure long-term consistent funding or ownership” of Clean Sweep programs in each state, which could include PPCPs.

### Programmatic Capability and Past Performance

Since our formation in 1990, the University of Wisconsin-Extension Solid and Hazardous Waste Education Center (SHWEC) has been the lead pollution prevention technical assistance and education provider for the State of Wisconsin. Steve Brachman will serve as Principal Investigator and will lead the mail back expansion and coordinate overall project activities. As a distinguished lecturer and waste reduction specialist, Brachman has provided timely completion of seven EPA-funded P2 projects since 1995. Brachman has worked on source reduction of mercury in health care sector since 1996 and has conducted over 30 P2 assessments of health care facilities. He is also responsible for the Wisconsin Pollution Prevention Internship Program, a summer program for college students that assists facilities with waste reduction strategies, and was instrumental in formation of the Wisconsin Healthcare for a Healthy Environment, a coalition of environmental managers formed in late 2007 to address pharmaceutical waste and other sustainability issues.

The University of Wisconsin – Extension has successfully obtained numerous EPA funded grants and provided leadership with well-documented outcomes and outputs. These projects have demonstrated our experience partnering with a broad network of organization to

accomplish key environmental outcomes in a timely, cost effective fashion. Below is list of grants from the last 3 years and their reported results:

<b>Project Title</b>	<b>Dates</b>	<b>Reported outcomes and outputs</b>
Preventing Pollution in Wisconsin 2008-09	10/01/08 – 9/30/10	Five student interns placed; 1 million solid waste pounds reduced; five facilities saved over \$50,000 annually (projected).
Preventing Pollution in Wisconsin 2007-09	10/1/07 – 9/30/09	124 members joined Wisconsin Healthcare for a Healthy Environment, 4 student interns placed; projected cost savings to hospitals of over \$30,000, 31,964 pounds of waste reduced, and 5717 pounds of potential air emissions reduced.
Collections of Unwanted Household Electronics and Medicines	4/21/08 – 9/30/10	1730 participants in mail back pilot program, 15164 medicine items returned. Regional conference planned for spring/summer 2010.
Reducing Discharges of Dental Amalgam to Sewerage Systems	10/01/07 – 9/30/09	66 participants and workshop speakers attended the Milwaukee workshop, including attendees from most of the Great Lakes states as well as Ontario. Seven travel reimbursements were provided to POTW participants and 22 continuing education forms were provided to the Wisconsin participants. Due to cost savings, additional workshops were provided in Michigan on April 22, 2009 and Illinois in May 2010.
Using Pollution Prevention as a Strategy to Reduce Pollutant/Hydraulic Loading to Small Community POTWs	10/01/06 – 09/30/07	Estimated capital <u>cost</u> of POTW improvements needed <u>without</u> implementing P2, estimated capital <u>cost savings</u> of POTWs if P2 options <u>are</u> implemented, potential service life extensions in years, estimated pollutant loading reductions using P2 identified through technical assistance, estimated value or cost of specific P2 options for businesses and industry, numbers of assistance visits, assessments and other activities
Demonstrating P2 impacts on water quality	10/01/05 – 03/31/07	49.6 lb of mercury recycled, business storm water impact reduction

Budget

GLRI Product Stewardship Proposal (2 year)

	<u>Total</u>	<u>UWEX</u>	<u>WI DNR</u>	<u>PSI</u>	<u>MPSC</u>	<u>IISG</u>	<u>AROW</u>	<u>mail back contractor Reverse Distribution</u>
a. Personnel	110,000	110,000						
b. Fringe Benefits	19,250	19,250						
c. Travel	60,000	60,000						
d. Equipment	0							
e. Supplies	79,063	79,063						
f. Contractual/shared grant	424,947		66,315	62,200			146,432	150,000
g. Other	15,000	15,000						
h. Total Direct Charges	<u>708,260</u>							
i. Indirect Charges	<u>99,661</u>							
j. Totals	807,921	283,313	66,315	62,200	0	0	146,432	150,000

Budget Explanation

- a. Includes 1 FTE project assistant to implement mail back program
- b. @ 17.5% LTE rate
- c. Includes \$8k per state workgroup meeting costs and support for dialog guest travel
- e. Includes promotional material including posters, brochures and mailings

	<u>Quantity</u>	<u>Price</u>	<u>Total</u>
mailers	19688	\$3	59063
posters	500	\$2	1000
brochures	5000	\$1	5000
ads/psa's	10	\$1,000	10000
conf. calls/webinars	20	\$200	4000

- f. Includes .3 FTE WDNR medical waste coordinator, PSI staff and travel time, 1.0 FTE AROW program director, and \$75,000 annually for mail back program contractor costs for disposal, reporting and administration.
- g. Pre and post evaluation service agreement with UW-River Falls
- i. An UWEX off-campus federally negotiated rate of 26% of MTDC is applied. Indirects are charged on only the first \$25,000 of each subcontractor. The MTDC basis is \$373,313 for this project.

ACORN Statement

Neither this applicant or any sub grantees or contractors listed in this proposal are affiliated with ACORN and thus, are not subject to the Congressional prohibition regarding federal funds.