



## 2006 Annual Report

In 1989, the Governors of the Great Lakes states created the Protection Fund to help them protect and restore their shared natural resources. The Fund is the first private endowment created to benefit a specific ecosystem. It is designed to support the creative work of collaborative teams that test new ideas, take risks, and share what they have learned. It is a source of financial support for groups that value innovation and entrepreneurship, focus on tangible benefits for the Great Lakes ecosystem, and learn by doing. Seven Great Lakes states have contributed \$81 million to the Fund's permanent endowment.

The Fund does three things. First, it invests the endowment to produce income. This income supports operations, regional projects, and member states' individual Great Lakes priorities. Second, it designs and finances regional projects. These projects identify, demonstrate, and promote regional action to enhance the health of the Great Lakes ecosystem. Third, it monitors those regional projects to ensure that they are successful, modified when necessary, or terminated if they are not creating value for the ecosystem.

From its inception through December 2006, the Fund has made a total of 211 grants and program-related investments, representing a \$50.1 million commitment to protecting and restoring the ecological health of the Great Lakes ecosystem. Additionally, the Fund has paid more than \$37.5 million to its seven member states to support their Great Lakes priorities. Over the course of the past 18 years, the Great Lakes ecosystem has benefited from the States' initial investment of \$81 million with an overall commitment of more than \$87.6 million to date.

### Activities During 2006

In the past year, the Fund generated over \$8.7 million in net investment income from the endowment. The Fund returned \$2.5 million to its member states in support of their Great Lakes priorities. The Fund paid \$2.5 million to support regional projects. Audited financial statements can be found in Appendix 1.

The Fund entered 2006 with 17 active projects focused on efforts to prevent biological pollution, restore natural flow regimes, engage market forces, and provide leadership for ecosystem restoration in the Great Lakes Basin. These projects represented an investment by the Fund of over \$7.7 million.

Over the course of the year, work was completed on five of these projects. These projects are identified in Appendix 2. All projects generated new and useful tools that will ultimately improve the health of the Great Lakes ecosystem. Not a single project failed to provide a good return on the Fund's investment.



For example, The Nature Conservancy (TNC) led team produced valuable hydrologic analysis tools to predict flow restoration changes as a result of water withdrawals. These tools are currently being used by TNC groups across the country as well as other Fund-sponsored projects to investigate flow regime restoration strategies. The Land and Water Resources led team produced tools for the creation and trade of water resource improvements to be disseminated throughout the Basin to encourage the development of markets for ecosystem improvement projects. Additionally, two teams made inroads with purchasing agents. They established a framework to move forward with environmentally beneficial purchasing choices related to energy technologies; and provided alternatives and technical assistance for new, PBT-free purchase specifications.

During 2006, the Fund developed and supported six new projects, maintaining the portfolio of active, supported work at just over \$9.2 million. A list of new projects is included as part of Appendix 3. Among the new projects is a grant made to the University of Illinois at Chicago to create a first-of-its-kind information system that integrates biological, commercial, and transportation information to generate detailed profiles for each vessel transiting the St. Lawrence Seaway. This project will help to achieve the Governors' objective of stopping the introduction of invasive species while increasing the region's access to global markets. The complete portfolio of supported work is included as Appendix 3.

### **Evaluation of the Corporation's Performance**

The Fund accomplished its objectives in 2006. Regional projects were designed and funded to address key gubernatorial priorities—especially the sustainable use of Great Lakes water and stopping invasive species. Ongoing regional efforts were monitored, adjusted when required, and closed-out when appropriate. Significant funds were returned to the member states to support their individual priorities.

### **Emerging Trends and Future Needs**

The Governors have identified their priorities for Great Lakes Basin ecosystem protection and restoration. The Fund will continue to focus on those priorities that are not already the responsibility of governments or regulated entities. In the near term, the Fund is likely to focus on identifying and demonstrating options for preventing additional introductions of invasive species, informing external decisions that affect the Basin, and developing measures and metrics to measure the health of the Basin ecosystem and the effectiveness of actions undertaken to make it healthier.

### **Actions Taken by the Directors in Response to Public Comments**

The Directors have sought, but not received, public comments on this report.



## MEMBERS OF THE CORPORATION IN 2006

*Governor of Illinois*

Rod R. Blagojevich

*Governor of Michigan*

Jennifer M. Granholm

*Governor of Minnesota*

Tim Pawlenty

*Governor of New York*

George E. Pataki

*Governor of Ohio*

Bob Taft

*Governor of Pennsylvania*

Edward G. Rendell

*Governor of Wisconsin*

James E. Doyle



## **BOARD OF DIRECTORS IN 2006**

Todd Ambs (*Madison, WI*)  
Ken DeBeaussaert (*Lansing, MI*)  
Michael Elmendorf (*Albany, NY*)  
Alan Fish (*Madison, WI*)  
Edwin Hammett (*Toledo, OH*)  
Scott Harrison (*Lutsen, MN*)  
Pat Lupo, OSB (*Erie, PA*)  
Andrew McElwaine (*Harrisburg, PA*)  
Matthew Millea (*Albany, NY*)  
Pat Quinn (*Chicago, IL*)  
Roy Ray (*Akron, OH*)  
Craig Shaver (*Minneapolis, MN*)  
Maureen Smyth (*Flint, MI*)  
David Vaught (*Naperville, IL*)

## **GREAT LAKES PROTECTION FUND STAFF**

Amy Elledge – Communications Administrator  
Laurence LaBoda – Director, Finance and Administration  
Erin McCallister – Program Associate  
David Rankin – Program Director  
Gloria Swanson – Executive Administrator  
Russell Van Herik – Executive Director



**APPENDIX 1**  
**2006 AUDITED FINANCIAL STATEMENTS**



# McGladrey & Pullen

Certified Public Accountants

## Great Lakes Protection Fund

Financial Report

December 31, 2006 and 2005

McGladrey & Pullen, LLP is a member firm of RSM International –  
an affiliation of separate and independent legal entities



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**Great Lakes Protection Fund**  
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**December 31, 2006 and 2005**

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# McGladrey & Pullen

Certified Public Accountants

## Independent Auditors' Report

Board of Directors of  
Great Lakes Protection Fund

We have audited the statement of financial position of Great Lakes Protection Fund (the "Fund") as of December 31, 2006 and the statements of activities and of cash flows for the year then ended. The financial statements are the responsibility of the Fund's management. Our responsibility is to express an opinion on the financial statements based on our audit. The financial statements of Great Lakes Protection Fund for the year ended December 31, 2005 were audited by Altschuler, Melvoin and Glasser LLP, certain of whose partners have become partners of McGladrey & Pullen, LLP. Altschuler, Melvoin and Glasser LLP's report dated February 10, 2006, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe our audit provides a reasonable basis for our opinion.

In our opinion, the 2006 financial statements referred to above present fairly, in all material respects, the financial position of Great Lakes Protection Fund as of December 31, 2006 and its activities and cash flows for the year then ended in conformity with auditing standards generally accepted in the United States of America.

*McGladrey & Pullen, LLP*

Chicago, Illinois  
March 23, 2007



**Great Lakes Protection Fund**  
**Statements of Financial Position**  
**December 31, 2006 and 2005**

	<u>2006</u>	<u>2005</u>
<b>Assets</b>		
Cash and cash equivalents	\$ 1,968,705	\$ 2,398,833
Receivable from broker for sales of securities		145,617
Investments	133,367,398	119,720,914
Accrued interest	180,014	179,367
Other assets	18,643	15,820
Furniture, equipment and leasehold improvements (net of accumulated depreciation of \$275,073 and \$237,307 in 2006 and 2005)	<u>98,005</u>	<u>58,323</u>
	<u>\$ 135,632,765</u>	<u>\$ 122,518,874</u>
<b>Liabilities and Net Assets</b>		
Liabilities		
Grant commitments	\$ 353,760	\$ 241,855
Member state shares	2,532,674	1,624,037
Liability to brokers for purchase of securities	384,121	181,021
Accrued expenses	154,544	109,800
Accrued pension contribution	<u>3,946</u>	<u>3,703</u>
	<u>3,429,045</u>	<u>2,160,416</u>
Net assets		
Unrestricted	48,676,732	36,831,470
Permanently restricted	<u>83,526,988</u>	<u>83,526,988</u>
	<u>132,203,720</u>	<u>120,358,458</u>
	<u>\$ 135,632,765</u>	<u>\$ 122,518,874</u>

See accompanying notes.

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**Great Lakes Protection Fund**  
**Statements of Activities**  
**Years Ended December 31, 2006 and 2005**

	2006		2005		Total
	Unrestricted	Permanently Restricted	Unrestricted	Permanently Restricted	
Revenue					
Investment income	\$ 9,088,214	\$ -	\$ 9,088,214	\$ -	\$ 6,118,019
Expenses					
Program grants	2,486,323		2,486,323		3,040,882
Member state shares	2,532,674		2,532,674		1,624,037
Investment management and advisory fees	325,100		325,100		196,330
Administrative expenses	1,165,090		1,165,090		1,049,577
	6,509,187	-	6,509,187	-	5,910,826
<b>Increase in net assets before unrealized gain on investments</b>	2,579,027	-	2,579,027	-	207,193
Unrealized gain on investments	9,266,235		9,266,235		947,210
<b>Increase in net assets</b>	11,845,262	-	11,845,262	-	1,154,403
Net assets					
Beginning of year	36,831,470	83,526,988	120,358,458	83,526,988	119,204,055
<b>End of year</b>	<b>\$ 48,676,732</b>	<b>\$ 83,526,988</b>	<b>\$ 132,203,720</b>	<b>\$ 36,831,470</b>	<b>\$ 120,358,458</b>

See accompanying notes.



**Great Lakes Protection Fund**  
**Statements of Cash Flows**  
**Years Ended December 31, 2006 and 2005**

	<u>2006</u>	<u>2005</u>
<b>Operating activities</b>		
Increase in net assets	\$ 11,845,262	\$ 1,154,403
Depreciation and amortization	37,766	33,408
Realized gain on sales of investments	(2,033,041)	(1,901,099)
Unrealized gain on investments	(9,266,235)	(947,210)
Changes in		
Accrued interest	(647)	(45,974)
Other assets	(2,823)	5,053
Grant commitments	111,905	241,855
Member state shares	908,637	1,257,943
Accrued expenses	44,744	(193,889)
Accrued pension contribution	243	110
<b>Net cash provided by (used in) operating activities</b>	<u>1,645,811</u>	<u>(395,400)</u>
<b>Investing activities</b>		
Purchases of investments	(18,070,024)	(33,367,229)
Proceeds from sales of investments	16,071,533	32,226,539
Purchases of equipment and improvements	(77,448)	(4,376)
<b>Net cash used in investing activities</b>	<u>(2,075,939)</u>	<u>(1,145,066)</u>
<b>Decrease in cash and cash equivalents</b>	(430,128)	(1,540,466)
<b>Cash and cash equivalents</b>		
Beginning of year	<u>2,398,833</u>	<u>3,939,299</u>
<b>End of year</b>	<u>\$ 1,968,705</u>	<u>\$ 2,398,833</u>

See accompanying notes.

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**Great Lakes Protection Fund**  
**Notes to the Financial Statements**  
**Years Ended December 31, 2006 and 2005**

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**Note 1 Nature of Activities and Significant Accounting Policies**

Great Lakes Protection Fund (the "Fund") is a nonprofit organization designed to have as its members the governors of the eight states bordering on the Great Lakes. Seven of the states have joined the Fund and have made contributions, as specified in the Fund's articles of incorporation, to establish their membership in the Fund. Income earned on the contributions is used to provide grants which finance projects advancing the goals of the Great Lakes Toxic Substances Control Agreement and the binational Great Lakes Water Quality Agreement, so as to advance the health of the ecosystem of the Great Lakes Basin.

The Fund is exempt from income taxes under Section 115(1) of the Internal Revenue Code and applicable state law.

**Basis of Accounting**—Under accounting principles generally accepted in the United States of America, not-for-profit organizations report net assets in each of the three classes: permanently restricted, temporarily restricted, or unrestricted based on the existence or absence of donor-imposed restrictions.

**Cash and Cash Equivalents**—For purposes of the statements of cash flows, the Fund considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

The Fund maintains cash accounts at financial institutions, which at times, may exceed \$100,000. The accounts are insured by the Federal Deposit Insurance Corporation ("FDIC") up to \$100,000. A significant portion of cash equivalents is invested in money market accounts. Such amounts are insured by the Securities Investors Protection Company up to \$500,000. Amounts in excess of those levels are insured by the manager to the balance of the account. The Fund has not experienced any losses in such accounts. Management believes that the Fund is not exposed to any significant credit risk on cash and cash equivalents.

**Investments**—Investments are reflected at current market value. Realized gains for mutual funds are computed using the specific-identification method. Realized gains for all other investments are computed using the first-in, first-out method.

The Fund invests in various investments. Such investments are exposed to various risks such as interest rate, market and credit risk. Due to the level of risk associated with certain investments, it is at least reasonably possible that changes in the values of investments will occur in the near term and that such changes could materially affect the amounts reported in the statements of financial position.

**Furniture, Equipment and Leasehold Improvements**—Furniture, equipment and leasehold improvements are stated at cost. Depreciation is recorded on a straight-line basis over the estimated useful lives of the assets ranging from five to seven years. Leasehold improvements are amortized over the remaining lease term.

**Grant Commitments**—Payment of grants beyond the initial installments is contingent on the satisfaction by the recipients of agreed-upon requirements. Unpaid amounts are accrued only if the contingencies have been met.

**Use of Estimates**—The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions affecting the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, as well as the reported amounts of revenue and expenses during the reporting period. Actual results could differ from the estimates.



**Great Lakes Protection Fund**  
**Notes to the Financial Statements**  
**Years Ended December 31, 2006 and 2005**

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**Note 2 Investments**

Investments consist of the following:

	2006	
	Cost	Market
Bond mutual funds	\$ 28,171,396	\$ 28,526,531
Common stocks and stock equivalents	83,166,236	104,840,867
	<u>\$111,337,632</u>	<u>\$133,367,398</u>

  

	2005	
	Cost	Market
Bond mutual funds	\$ 28,171,396	\$ 28,537,084
Common stocks and stock equivalents	78,785,987	91,183,830
	<u>\$106,957,383</u>	<u>\$119,720,914</u>

The market value of the investments was based on quoted market prices at the respective year-ends.

**Note 3 Member State Shares**

In accordance with the articles of incorporation, the Fund is required to disburse to the member states one-third of its realized investment income after deducting operating expenses, excluding grants. Amounts paid to the states are to be used for the furtherance of the Fund's activities and are allocated on the basis of the state's respective contribution. Accrued member state shares were \$2,532,674 and \$1,624,037 at December 31, 2006 and 2005, respectively.

**Note 4 Grants Committed**

Grant activity for 2006 and 2005 is as follows:

	Grants Approved	Grants Paid	Grants Committed December 31
2006	\$ 3,514,000	\$ 2,383,540	\$ 353,760
2005	1,854,000	2,799,027	241,855

As of December 31, 2006, total grants approved since the Fund's inception amounted to \$50,176,213, of which \$4,225,882 related to grants for which the contingencies have not been met and, therefore, the grant expenses have not been recognized. Upon satisfaction of the contingencies by the recipients, the Fund will recognize the grant expenses and disburse the remaining payments.



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**Great Lakes Protection Fund**  
**Notes to the Financial Statements**  
**Years Ended December 31, 2006 and 2005**

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**Note 5 Permanently Restricted Net Assets**

Permanently restricted net assets represent the contributions received from member states in accordance with the Fund's articles of incorporation, along with interest on delayed payments. These amounts cannot be expended.

With the exception of Indiana, all states have made their required contributions, which were as follows:

Illinois	\$ 15,000,000
Michigan	25,000,000
Minnesota	1,500,000
New York	12,000,000
Ohio	14,000,000
Pennsylvania	1,500,000
Wisconsin	<u>12,000,000</u>
	<u>\$ 81,000,000</u>

There is no due date for the contribution payable by Indiana, which has not yet joined the Fund.

In accordance with its articles of incorporation, the Fund charges interest to states electing to extend the time to make the required contributions. No such interest was charged in 2006. No interest is due from the State of Indiana until such time as it elects to join the Fund and to determine the time to make its required contributions.

**Note 6 Commitments**

The Fund is obligated under an office lease expiring in December 2010.

Rent expense totaled \$148,607 and \$123,996 for 2006 and 2005, respectively.

Minimum payments required under the lease are as follows:

2007	\$ 148,067
2008	150,579
2009	153,090
2010	<u>155,600</u>
	<u>\$ 607,336</u>

**Note 7 Retirement Plan**

The Fund maintains a retirement plan under the provisions of the Internal Revenue Code applicable to governmental retirement plans. All employees are eligible to participate upon commencement of employment. The Fund makes contributions equal to 10 percent of each employee's compensation. Employees cannot contribute to the plan. The Fund contributed \$48,316 and \$44,862 to the plan for 2006 and 2005, respectively.



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## APPENDIX 2

### PROJECTS COMPLETED IN 2006

#### PREVENTING BIOLOGICAL POLLUTION

##### **Great Lakes Pollution Prevention Project:**

##### **Biological Pollution and the Waterborne Transportation System**

The objective of this work was to characterize the waterborne transportation system in the Great lakes with respect to biological materials transport, to identify control points in the transportation value chain, to develop the control points, and to cultivate leaders who will act to put the controls in place. The team identified all the relevant parties and members of the transportation value chain in the Great Lakes; however, they were unable to identify precise control points and concluded that a conventional Environmental Management System (EMS) was not compatible with the Great Lakes shipping industry. Rather, the team felt that an industry led effort that includes treatment system development, installation of technology, and implementation assistance and monitoring would be the most effective way to address ship-mediated invasions. The findings of this project led to the creation of the Great Ships Initiative. Overall, the team's elucidation of the transportation value chain in the Great Lakes and new Great Ships Initiative is likely to provide valuable insight to future efforts to eliminate ship-mediated biological pollution and ultimately, improve the health of the Great Lakes ecosystem.

Northeast-Midwest Institute  
Contact: Allegra Cangelosi  
202-464-4007  
acangelo@nemw.org

\$325,000



## MARKET MECHANISMS

### **Creating Improvements to the Great Lakes Ecosystem**

The anticipated outcome of this project was the development of a land trust-facilitated strategy to create and transfer water resource improvement credits. The team developed valuable transactional tools for the creation and trade of water resource improvements. The team developed a prospectus for a stream restoration project in Euclid Creek and designed a template operating agreement for a Water Resources Improvement Trust (WRIT). The team will continue to work with community members and officials to execute the project in Euclid Creek. The tools will be disseminated to likely users throughout the Great Lakes Basin to encourage the development of markets for ecosystem improvement projects. The tools developed are a valuable resource that will drive innovative solutions to improve the health of the Great Lakes ecosystem.

Land and Water Resources, Inc.  
Contact: David Urban  
847-692-7170

\$459,000



## NATURAL FLOW REGIMES

### **Restoring the Great Lakes Ecosystem's Natural Flow Regime: Three Demonstration Projects**

The project developed restoration protocols and restored two hydrologically distinct habitats within the Basin including a fen in southeastern Michigan and a ridge and swale system along the Door Peninsula. The group's technical work at a third location along Lake Ontario helped to inform the IJC's Lake Ontario-St. Lawrence River study on managing water levels and flows by recommending adaptive management strategies to improve the natural biodiversity of the flora and fauna along Lake Ontario's shores. Building on this work, the team then produced valuable hydrologic analysis tools to predict flow restoration changes as a result of water withdrawals. These tools are currently being used by TNC groups across the country as well as by other GLPF sponsored projects to investigate flow regime restoration strategies. Overall this project positively impacted the Great Lakes ecosystem by restoring critical habitats, highlighting the ecological impacts of lake level management decisions, and providing valuable tools to assess hydrological and ecological impacts of stream flow restoration strategies.

The Nature Conservancy Great Lakes Initiative  
Contact: Lois Morrison  
312-759-8017  
[lmorrison@tnc.org](mailto:lmorrison@tnc.org)

\$653,000



## LEADERSHIP FOR ECOSYSTEM RESTORATION

### **PBT-Free Purchasing in the Great Lakes Basin**

The goal of this project was to reduce the build-up of persistent, bioaccumulative toxins (PBTs) in the Great Lakes Basin through working with state and local purchasing departments to identify PBT-free choices and revise purchasing bid specifications accordingly. Because purchasing contracts are bid out over the course of one to six years, the team focused on creating tools to shape future purchasing choices. They were able to work closely with officials in Buffalo, New York to bring about positive purchasing changes. In addition, through a coordinated outreach effort, the team informed purchasing agents throughout the Great Lakes Basin of PBT-free alternatives and provided technical assistance in drafting new contract specifications. The long-term reduction in PBTs as a result of this project will positively impact the health of the Great Lakes Basin through healthier streams and aquatic life.

INFORM, Inc.  
Contact: Cameron Lory  
212-361-2400  
lorry@informinc.org

\$300,000



### **Public Benefit Charges: A Promising New Avenue to Reduce Toxics Deposition to the Great Lakes**

The goal of this project was to develop tools for the Public Benefit Funds (PBFs) to target their grants at emissions reduction projects and work with PBF managers to apply these tools. The team created a first-of-its-kind model that predicted the impact of criteria air pollutant emissions for renewable and energy efficiency projects. During the course of the project, PBF managers elected not to use specific environmental criteria in considering individual projects, but to either use more qualitative environmental goals and/or promote reduced energy use as a goal in itself. The team did create the means to assess the environmental impact of these strategies.

Center for Clean Air Policy  
Contact: Stacey Davis  
202-408-9260  
[sdavis@ccap.org](mailto:sdavis@ccap.org)

\$300,000



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## APPENDIX 3

### PORTFOLIO OF PROJECTS AS OF DECEMBER, 2006

#### PREVENTING BIOLOGICAL POLLUTION

##### **ANS-HACCP Training Initiative to Prevent the Spread of Aquatic Nuisance Species by Resource Managers, Researchers, and Enforcement Officers**

Six Great Lakes Sea Grant Extension programs train the research and resource management communities in the use of the Hazard and Critical Control Point methodology to identify and eliminate the risk of introducing aquatic nuisance species in their routine operations. This methodology was developed to prevent the contamination of foodstuffs and has been expanded by the team to apply to the bait and aquaculture industries. The methodology requires that participants identify potentially risky behavior and the critical times when that behavior must be modified to prevent the spread of invasive species. Sea Grant extension agents provide this training and act as a resource for state and federal resource management agencies and research institutions.

Minnesota Sea Grant Program  
Contact: Jeffrey Gunderson  
218-726-8715  
[jqunder1@umn.edu](mailto:jqunder1@umn.edu)

\$246,000



##### **Eco-Pro: An Intelligence System for Shipping to Protect the Ecosystem of the Great Lakes (Awarded in 2006)**

This project is designed to eliminate aquatic invasive species and pathogen introductions from ocean ships entering the Great Lakes. The team will create a prototype information system that will generate detailed profiles for each vessel transiting the St. Lawrence Seaway. The “proof of concept” system will use proprietary databases and public information to identify which vessels are underway, whose cargo they are carrying, what their destinations are, where they have been, and what ecological and public health conditions exist at these locales. The team will create a searchable system that can assemble relevant information on the likely risks presented by a particular vessel with real time display of vessel location and prototype risk information. The skeleton system will be vetted by invasion biologists, resource managers, and public health experts to build more robust risk profiles for each vessel. This groundbreaking project will attempt to create a first-of-its-kind information system that integrates biological, commercial and transportation information.

University of Illinois at Chicago  
Contact: Bing Liu  
312-355-1318  
[liub@cs.uic.edu](mailto:liub@cs.uic.edu)

\$435,000



### **Identifying, Verifying, and Establishing Options for Best Management Practices for NOBOB Vessels**

This team will develop and test a set of enhancements to the Canadian Shipping Federation's Code of Conduct that specifies ballast management practices for vessels entering the Great Lakes. Specifically, they will extend the current requirements to NOBOB vessels by identifying where, when and how ballast should be taken on even though it will be discharged before entering the Great Lakes system, how sediment can be managed, and the use of salt-water exchange even if loaded with cargo. The team is conducting controlled experiments to assess each method.

University of Michigan  
Contact: Thomas Johengen  
734-764-2426  
[johengen@umich.edu](mailto:johengen@umich.edu)

\$770,000



### **Risk Assessment and Management of Great Lakes Species (Awarded in 2006)**

Ultimately, this project will lead toward the elimination of new introductions of invasive species into the waters of the Great Lakes. It will also work to halt the further spread of invasive, nonnative species from the Great Lakes to other waters of North America. The project team will: 1) provide the initial scientific basis for assessing the relative invasion risk of vessels entering the Great Lakes based on the ports they have previously visited; 2) accelerate the development of rapid genetic tests to determine the content of ballast tanks; and 3) create methods to identify the best places and strategies to stop the spread of invasive species beyond the Great Lakes into other waters. The project includes participation from The Nature Conservancy, Transport Canada and other relevant stakeholders.

University of Notre Dame  
Contact: David Lodge  
574-631-6094  
[lodge.1@nd.edu](mailto:lodge.1@nd.edu)

\$1,090,000



## St. Lawrence Seaway: Issues and Options – Phase II

The team will build on its efforts of Phase I work to identify options to eliminate the introduction of non-indigenous species into the Great Lakes. In addition to committee members from Phase I, the team will include new members with expertise in decision analysis, political science, international trade, and economic development as well as members from the Royal Society of Canada. The committee and additional experts (identified throughout the process) will form an “innovation cell” that will develop options to: 1) promote international commerce and 2) eliminate the introduction of invasive species. They will identify topics (selected by committee and reviewed by stakeholders) for eight commissioned papers. Upon presentation of the commissioned papers and comment by stakeholders at a two-day symposium, the committee will develop ranked options in the form of a final report. Ultimately, the committee will brief federal officials and other interested parties on the final report’s findings.

The National Academies  
Contact: Stephen Godwin  
202-334-3261  
[sgodwin@nas.edu](mailto:sgodwin@nas.edu)

\$875,000



## LEADERSHIP FOR ECOSYSTEM RESTORATION

### Quality Hunting Ecology

Sand County Foundation will work with private land owners, state resource agencies, the insurance industry, and hunters to implement a plan to reduce the impact of deer on forest regeneration at three model sites in the Great Lakes Basin. The Foundation has already demonstrated success at a small scale by increasing the proportion of mature male deer in the target population and has reduced the overall number of deer and the rate of population growth. The Foundation is expanding this program to cover 300,000 acres. The project will result in improved water quality through a more diverse and robust forest complex.

Sand County Foundation  
Contact: Kevin McAleese  
608-242-5237  
[mcaleese@mailbag.com](mailto:mcaleese@mailbag.com)

\$300,000



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### **Water Conservation and Efficiency Initiative (Awarded in 2006)**

The project team will build upon the Great Lakes Charter Annex signed in December, 2005 through the development of Basin-wide water conservation and efficiency goals. These goals will be applied in the development of individual state conservation programs. The team will engage regional stakeholders to develop goals and objectives for review and consideration by the Great Lakes-St. Lawrence River Water Resources Regional Body (Regional Body) comprised of the Governors and Premiers. Based on this review, the team will partner with Wisconsin officials to develop their program to meet those water conservation goals and objectives. The members of the Regional Body will ultimately take action on the water conservation goals and objectives.

Council of Great Lakes Governors \$169,000  
Contact: David Naftzger  
312-407-0177  
[dnaftzger@cglg.org](mailto:dnaftzger@cglg.org)



## **MARKET MECHANISMS**

### **A Regional Finance Strategy to Restore the Health of the Great Lakes Ecosystem (Awarded in 2006)**

The ultimate goal of this project is to stop the contamination of streams, rivers, beaches, and coastlines by the release of untreated or partially treated waters from sanitary, storm, and combined sewer systems or other run-off as called for in the Regional Collaboration Strategy. A team of lawyers, finance experts, agency representatives, and others will develop an implementation plan for one or more new finance program(s) that will create new, low-cost, flexible capital to be used for activities described in the Strategy. The plan will be developed in conjunction with, and designed to operate along side of, existing state revolving loan funds (SRF) and environmental bond programs. The value is the new type of financing arrangements that are developed, not necessarily the creation of a new regional entity. New tax credits and multi-state tax exemptions will be explored to leverage federal commitments and lower the full cost of the activities identified under the Regional Collaboration's Strategy. The regional program that results may be changes to, and new strategies embedded in, existing state programs.

Bricker & Eckler LLP \$685,000  
Contact: David Rogers  
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### **Achieving Ecosystem Benefits through Pollution Prevention and Energy Efficiency Transactions**

The ultimate outcome of this project is the conservation of Great Lakes water and reductions of criteria air pollutants, solid and hazardous waste, and emissions associated with climate change. In creating transactions and working with landowners in Illinois and Michigan, the team will develop a series of tools to track and measure the full extent of the environmental impacts associated with specific reduction actions. In conjunction with a panel of Sustainability Institute Fellows, the team will verify these ecosystem impacts and identify third party transactions to retire the benefits. The tools and products developed include: investment grade audits, efficiency contracts, carbon offset transactions, and facility footprint mapping. If successful, the project will allow the ecosystem improvements generated to accumulate in the Great Lakes Basin.

Delta Institute

\$435,000

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312-554-0900

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### **Developing New Financing Products for Great Lakes Ecosystem Restoration**

**(Awarded in 2006)**

This project will lead to healthier Areas of Concern (AOCs) around the Great Lakes Basin. A robust team of ecosystem and finance experts will develop and deploy finance tools to generate approximately \$50 million in revenues. Ecosystem experts will work alongside public and private finance professionals to deploy tax increment financing (TIF) toward innovative, regional purposes—the clean up of contaminated sediment, the construction of wet-weather discharge controls and the restoration of wetlands. State bonding authority professionals will work with the applicant to outline a policy strategy to launch a shared regional bond vehicle. The project will also serve as a platform to engage finance experts, stakeholders, and local leaders throughout the Basin in the design and deployment of innovative ecosystem restoration finance vehicles.

Northeast-Midwest Institute

\$593,000

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### **Restoration of the Great Lakes Basin Water through the Use of Conservation Credits**

The team will develop a water-balance decision support system that will, in turn, support the research and development of a water conservation credit system. The team will support and build on existing efforts to link three existing models—surface hydrology, groundwater movement, and in-stream biological condition—to evaluate the potential consequences of changes in groundwater withdrawals. The team will estimate the impact of various water conservation and harvesting techniques on groundwater supply. The team expects to run these linked models in two selected watersheds to prototype a water conservation credit verification system. In these watersheds, the estimated effect of installing practices to enhance groundwater recharge would be balanced against new requests for withdrawals.

Michigan State University  
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\$540,000



### **Using Market Mechanisms to Reduce the Use of Fertilizers and Pesticides in States Bordering the Great Lakes**

The American Farmland Trust Agricultural Conservation Innovation Center (ACIC) will work with a team of insurers, farm operators, farm advisers, and state and federal farm agencies to improve Great Lakes water quality by providing risk management incentives that promote conservation practices to reduce fertilizer and chemical applications on agricultural lands within the Basin. The team will develop and implement a set of risk management products (insurance policies or service warranties) that protect farmers against financial losses associated with lower crop yields due to reduced fertilizer and chemical inputs. The project team will also evaluate the effectiveness of using risk management products as a tool to promote agricultural conservation practices and achieve Great Lakes environmental outcomes.

American Farmland Trust  
Contact: Brian Brandt  
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\$373,000



## NATURAL FLOW REGIMES

### **Developing a Process to Quantify and Facilitate Water Withdrawal Driven Ecosystem Improvements**

The team will identify resource improvements from changes in land and water uses, develop and implement a tool to register those ecosystem improvements, and create the legal and financial arrangements to trade or sell credits to those interested in securing increased basin withdrawals. The team will identify the likely hydrological benefits of wetland restoration, stormwater retention, and various agricultural and residential best management practices and then couple the hydrologic benefits to expected improvements in ecological condition. Standards for various types and magnitudes of ecological improvements will be developed and a mechanism to register improvements will be created. Last, the team expects to identify the legal, financial, and insurance mechanisms required to support trading or sales of improvement “credits”.

CH2M Hill  
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\$525,000



### **Identifying and Valuing Restoration Opportunities at Watershed and Subwatershed Scales**

The team will develop, test, and apply a suite of watershed assessment tools to identify high-value restoration opportunities that reverse ecological impairments associated with altered hydrology. The team will conduct a baseline survey of watershed types in the Basin—identifying boundaries, dominant hydrology, dominant land use, and principal supply of water for human uses. From this inventory, the team will select four pilot watersheds based on the nature of ecological impairments, the nature of restoration activities that are planned or underway, and whether any other Fund supported activity is underway at the site. In these watersheds, the team will test the ability of several protocols to predict and track the consequences of the restoration work including the index of hydrologic alteration, Instream Flow Council protocols, and ecological flow prescription protocols. Building on work at these sites, the team will create a set of methods to value and compare different restoration opportunities. Ultimately, the team expects to generate a “water base unit” metric to measure ecological improvements.

Applied Ecological Services  
Contact: Steven Apfelbaum  
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\$499,000



### **Implementing and Documenting the Benefits and Costs of “Stormwater Treatment Trains” in Three Model Conservation (Watershed Sensitive) Developments**

Applied Ecological Services (AES) will monitor the effectiveness of stormwater treatment trains in improving water quality and flow during and after construction. AES will construct Stormwater Treatment Trains—vegetated swales that convey runoff, wetlands that remove nutrients and sediment, and sedimentation basins and stages release outlets—at three developments in southeast Wisconsin. The project will evaluate the ecological impacts of, and costs associated with, three watershed sensitive developments and compare them to pre- and post-development conditions and traditional residential developments.

Applied Ecological Services, Inc.  
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\$369,000



### **Innovative Outreach to Absentee Landowners in the Great Lakes (Awarded in 2006)**

The project team will reach out to an untapped audience in the Great Lakes Basin—absentee landowners—to undertake conservation practices that will ultimately restore stream and river health, increase riparian habitat, improve water quality, and reduce the impact of agriculture on the health of the Great Lakes ecosystem. They will develop, test, and implement new outreach tools that encourage absentee landowners to install conservation practices on their property. The group will work in three Great Lakes watersheds: Saginaw Bay (MI), Manitowoc County (WI), and Oak Orchard (NY). They will inform over 1,200 absentee landowners of conservation opportunities, convert at least 1,600 acres of production land to vegetative filter strips, and ultimately reduce the input of 2,320 tons of sediment, 3,840 pounds of phosphorous, and 7,600 pounds of nitrogen into the Great Lakes each year. Local agencies will work with the owner and operator to ensure the conservation practices are installed, maintained, and evaluated for ecological outcomes. The team will build a best practices guide and tool kit for local outreach agencies throughout the Basin; host planning workshops in five Great Lakes states to inform regional, state, and local entities of the best practices and tools available; and provide financial start-up assistance to outreach campaigns throughout the Basin.

M&M Divide Resource Conservation & Development  
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\$542,000



### **Lake Ontario Resource Improvement Opportunity Assessment**

This team will expand the geographic scope of a resource improvement screening model (developed by Cornell University in a previous grant) to all of Lake Ontario, create a user-friendly template that allows a project proponent to use the screening level information to assemble an improvement project, and create methods to capture the benefits which accrue to that project over space and time. In particular, the team will allow a user to identify the full suite of restoration opportunities that might exist at the site in addition to the more regionally common opportunities used as a “screen” to identify likely sites. Last, the team expects to develop tools that will allow a project proponent to identify the resource improvements that will occur offsite, or later in time.

Natural Heritage Institute  
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\$544,000



### **Restoring Flow Regimes Through Growing Water Transactions: Basin-Wide Case Studies**

This is the first phase of a project to investigate and build environmental markets for the ecological improvements associated with restoring natural flow regimes. In this first phase, the team expects to identify existing efforts that are, or easily could be, generating ecological improvements at three to six areas in the Basin. For each location, the team will identify the full suite of environmental benefits generated, define how to create rights in those improvements, identify why those projects are generating improvements, and how they are presently being accounted. Based on the elements common to the case sites, the team will prepare model methods to capture the value of the benefits created and model contracts to convey rights to a second party. The project will also consider how market mechanisms can be incorporated into existing local, state, and federal environmental regulations, land use decision-making, and infrastructure planning and investment.

Environmental Trading Network  
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\$250,000



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