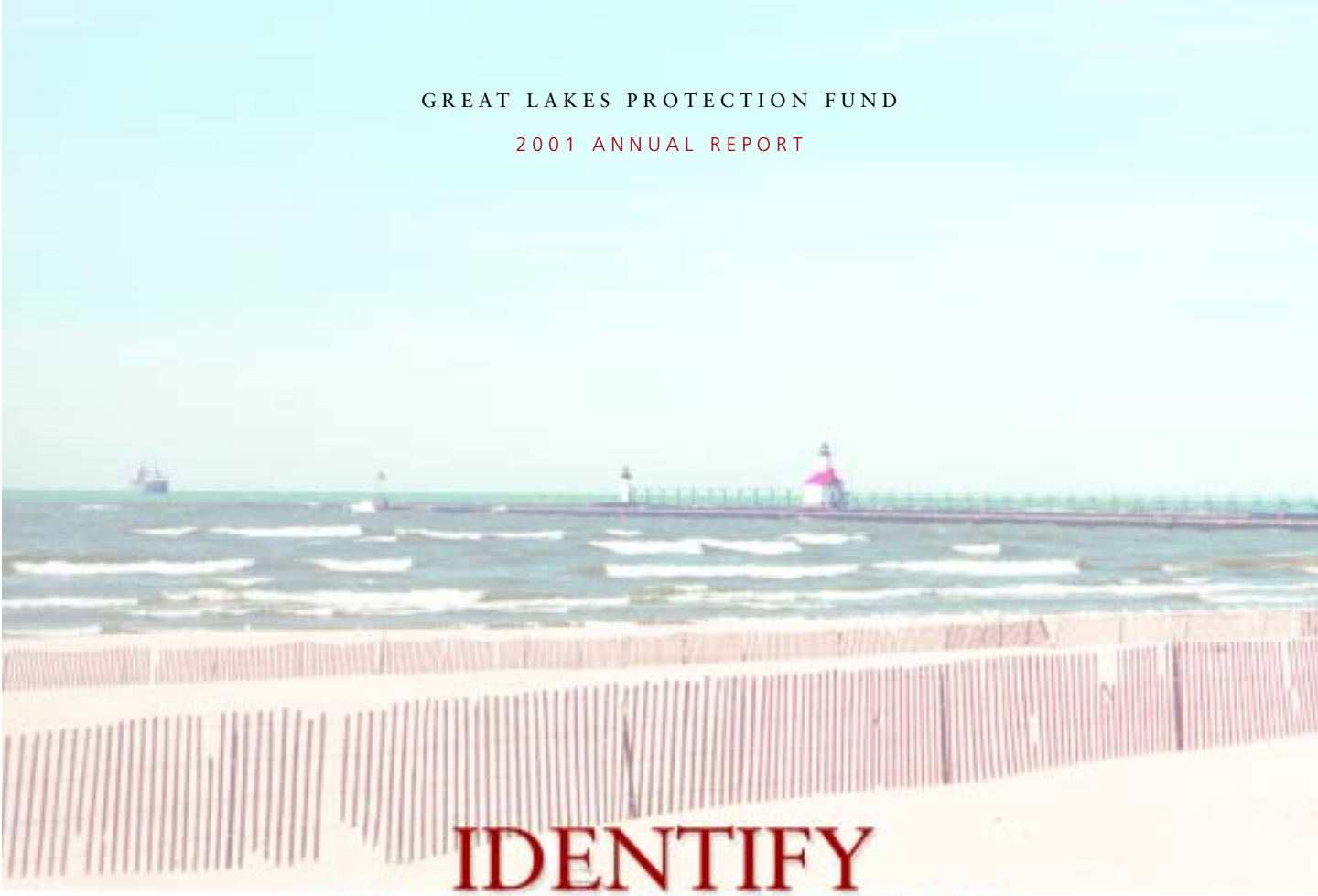
GREAT LAKES PROTECTION FUND

2001 ANNUAL REPORT



IDENTIFY DEMONSTRATE AND PROMOTE REGIONAL ACTION TO ENHANCE THE HEALTH OF THE GREAT LAKES ECOSYSTEM

The mission of the Great Lakes Protection Fund is to identify, demonstrate, and promote regional action to enhance the health of the Great Lakes ecosystem.

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 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 support for groups that value innovation and entrepreneurship, learn by doing, and focus on tangible benefits for the Great Lakes ecosystem.

Seven Great Lakes states have contributed $81 million to the Fund's permanent endowment. The endowment is invested to produce income to support regional projects and for member states to use in support of their Great Lakes priorities. From its inception through December 2001, the Fund has provided more than $68 million in support to regional initiatives and returns to its member states for their priorities, while protecting the full value of the states' original contributions.

The Fund makes grants, loans or program related investments to accomplish its mission. It relies on the advice of independent, technical experts to shape programming and review individual requests for support. By the end of 2001, the Fund had made a total 182 grants and program related investments, representing a $37.2 million commitment to protecting and restoring the ecological health of the Great Lakes ecosystem. Additionally, the Fund had returned over $31.3 million to its seven member states to support their Great Lakes priorities.

Cover Photo: Stephen B. Starr

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Photo: S.D. Mackey

The Great Lakes Protection Fund in 2001

The Governors of the Great Lakes states created the Great Lakes Protection Fund to support efforts that protect and restore the ecological health of the Great Lakes. The Fund invests in regional projects that are innovative, action-oriented, collaborative, and result in tangible benefits to the health and integrity of the Great Lakes. At the end of calendar year 2001, the Fund had four major categories of investment in its regional project portfolio. These categories included projects that: prevent biological pollution, restore natural flow regimes, create markets for environmental improvement, and support leadership initiatives in Great Lakes restoration.

Photo: S.D. Mackey

During 2001, Fund grantees continued to improve ecosystem health by restoring natural flows in Great Lakes tributaries, wetlands, and lakes; explored how Great Lakes water use may impact the basin's water-dependent natural resources and began building the foundation for a new, innovative, resource-based water conservation standard; evaluated new technologies to keep the Great Lakes open to world commerce but closed to exotic species; and tested new markets for ecological services. New projects were added to manage the threat of exotic species introductions, reduce nutrient and pollutant loadings into the Great Lakes, and utilize incentives to improve the health of basin resources.

Protecting Great Lakes Waters

Over the past 30 years, the citizens, governments, and industries of the Great Lakes basin have addressed serious pollution issues and greatly improved the chemical integrity of the Great Lakes. These groups have demonstrated that economic and environmental health go hand-in-hand. Now, new threats to the basin's ecological integrity are beginning to emerge. These include the effects of possible bulk water exports, potential new diversions of water out of or into the basin, and adverse natural resource consequences of a wide range of water uses within the basin.

New threats to the basin's ecological integrity are beginning to emerge.

In the 16 years since the Governors entered into the region's first formal agreement on management of Great Lakes water resources – the 1985 Great Lakes Charter – the state of scientific knowledge of how the ecosystem can be affected by changes in hydrology has greatly improved. It is now understood that the basin's ecological integrity is dependent upon how water moves through the ground, across the land, through rivers and streams, and into the Great Lakes – in addition to the rates at which water leaves the system.

The legal and policy context has also changed since the Governors first signed the Charter. For example, the States and Provinces have adopted various regulations governing the use of Great Lakes waters. In 1986 the US Federal Government included language in

the Water Resources Development Act that prohibits diversions from the US portion of the Great Lakes unless all Governors approve the request. The US and Canada have also entered into two significant international trade treaties-the North American Free Trade Agreement (NAFTA) and the General Agreement on Tariffs and Trade (GATT – supplemented by agreements concerning the World Trade Organization) - that affect decisions about the use or transfer of water. Congress, when adopting revisions to the Water Resources Development Act in 2000, encouraged the Governors, in consultation with Canada's Great Lakes Provinces, "to develop and implement a mechanism that provides a common conservation standard embodying the principles of water conservation and resource improvement for making decisions concerning the withdrawal and use of water from the Great Lakes basin."

In light of the changed scientific, legal, and policy environments, the Region's Governors and Premiers signed the Great Lakes Charter Annex 2001 in June of 2001. In the Annex, the Governors and Premiers reaffirm their commitment to the Charter principles and also "commit to develop and implement a new common, resource-based conservation standard and apply it to proposed new or added increased capacity withdrawals of the Great Lakes water."

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The Annex specifically calls for a "new set of binding agreement(s) [that] will establish a decision making standard that the States and Provinces will utilize to review proposals to withdraw water from the Great Lakes Basin as well as proposals to increase existing water withdrawals or existing water withdrawal capacity."

Photo: S.D. Mackey

The new standard, presently being developed by the Governors and Premiers, will ensure that new water use projects will result in:

- "Preventing or minimizing Basin water loss through return flow and implementation of environmentally sound and economically feasible water conservation measures; and
- No significant adverse individual or cumulative impacts to the quantity or quality of the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and
- An improvement to the Waters and Water-Dependent Natural Resources of the Great Lakes Basin; and
- Compliance with the applicable state, provincial, federal, and international laws and treaties."

The Fund has awarded more than $5 million in support of the commitments made by the Governors and Premiers in the Annex.

The Annex also calls for development of a "decision support system that ensures the best available information… to implement the Charter, this Annex, and any new agreement(s). This design will include an assessment of available information and existing systems, a complete update of data on existing water uses, and identification of needs, provisions for a better understanding of the role of groundwater, and a plan to implement the ongoing support system."

The Fund has awarded more than $5 million in support of the commitments made by the Governors and Premiers in the Annex. In 1999, the fund supported a portfolio of 13 projects to explore how the health of aquatic resources of the Great Lakes can be improved by restoring natural flow regimes in the basin.

In 2000, the Fund initiated a multi-phase project to assist the Great Lakes States and Provinces in developing a robust water-resources decision support system (DSS). With Fund support, the Great Lakes Commission is leading a group of basin stakeholders in inventorying and characterizing sources of information on: the state of Great Lakes water resources, the uses of those resources, and how the various types of uses affect the basin's ecological health. This work builds the foundation for an information system

to support decisions of applicants, agencies and the public in the new water management regime contemplated by Annex 2001.

In December 2001, the Fund issued a request for proposed project to support the commitments of the Governors and Premiers made in Annex 2001. The Fund expects to support a set of projects that link likely future uses of the basin's waters to opportunities to improve the health of the basin's water-dependent natural resources. The Fund is looking for short-term projects designed to build technical tools, test various decision-making processes, and provide tangible examples of improvements to the basin's water-dependent natural resources in support of Annex 2001.

Photo: S.D. Mackey

Photo: S.D. Mackey

Restoring Natural Flow Regimes

Fund grantees continue to demonstrate how to improve ecosystem health by restoring natural flows in Great Lakes tributaries, wetlands, and lakes. This portfolio of thirteen grants continues to test the idea that significant long-term ecological gains can be made by restoring flows to a more "naturalized" state – on the ground at more than 100 locations in the basin. These grantees continue to find innovative ways to identify new resource improvement opportunities and create resource improvements in the basin.

Teams led by the University of Michigan and Cornell University are creating and testing tools to assess the degree of hydrologic alteration in basin watersheds, systematically recognize ecological restoration opportunities, and build local capacity to improve the health of water dependent natural resources by implementing new flow restoration projects. These tools will provide a means to identify new restoration and resource improvement opportunities throughout the Great Lakes basin.

With Fund support, a collaborative team of electric utilities, agency representatives and river users are working to restore habitat and flows to more than 1200 miles of Great Lakes tributaries by improving hydropower operations at more than 70 sites in New York, Wisconsin and Michigan. Through coalition building and systematic action, these grantees are testing how changing hydropower operations can be used to accrue a broad range of resource improvements at multiple sites in the basin.

A team led by the University of Wisconsin – Milwaukee is building a toolkit to evaluate efforts to restore degraded streams, floodplains, and wetlands in urban settings. The results of these restoration efforts have improved thermal, chemical, and biological characteristics within more than 12 miles of urban streams in southeastern Wisconsin. This toolkit will allow river restoration teams to identify restoration targets, design appropriate improvement strategies, and measure results.

Another team led by the Ohio State University is working to improve the health of water dependent natural resources by developing new designs for agricultural drainage systems that increase channel stability, reduce sedimentation, and improve water quality, habitat, and biodiversity. These design blueprints show how to generate substantial ecosystem improvements while reducing long-term channel maintenance in agricultural watersheds.

Preventing Biological Pollution

Fund grantees continue to test and evaluate new technologies to keep the Great Lakes open to world commerce but closed to exotic species. In 2001, the Fund awarded a grant to a team that includes the Northeast-Midwest Institute, Lake Carriers Association, Stolt-Neilsen Transport Group, and a team of scientists and engineers to develop, install, operate, and evaluate a full-scale ballast treatment system on a working chemical tanker (M/T Aspiration), assess its biological and engineering effectiveness, and conduct an assessment of a new filtration-UV ballast treatment system. This is the first full-scale installation and test of a ballast water treatment system designed to treat 100% of the ballast water 100% of the time in the Great Lakes.

In September, the first *International Ballast Technology Fair* was held in Chicago. This Fund-supported event gave Great Lakes states, shippers, entrepreneurs, and venture capitalists an opportunity forge new linkages and promote a strong ballast-water treatment industry that will meet future demands of industry and environment in the Great Lakes.

Fund grantees continue to test and evaluate new technologies to keep the Great Lakes open to world commerce but closed to exotic species.

Photo courtesy International Joint Commission

Also in 2001, Business for Social Responsibility was awarded a grant to lead a team of shippers, customers, scientists, and others to test the concept that shippers selecting ecosystem-friendly carriers can minimize ecological impacts to the Great Lakes. The team will design a risk analysis and management tool that allows companies that move goods via ship to identify and manage the ecological impacts of their shipping choices.

For the first time, a team of scientists has hatched living organisms from "resting stages" in the ballast tanks of ships that were not carrying ballast water. This team, working on a Fund supported project to characterize the risks posed by vessels entering the Great Lakes with no ballast on board, has sampled residual waters and sediment from 43 individual ballast tanks from 22 vessels. Even though these tanks are "empty", residual water and sediments in the tanks may contain eggs, cysts and other dormant biota that can be "hatched" in fresh water. This team, which includes U.S. and Canadian scientists, the shipping industry, and government agency members, will evaluate the extent of the threat posed by these vessels and how well present ballast management techniques address those threats.

Photo: Bay City Times (courtesy Great Lakes Environmental Research Lab)

Creating Markets for Environmental Improvement

The Fund supports projects that explore how markets recognize ecological improvement as a value proposition for individuals, municipalities as well as private companies and their owners.

In 2001, initial work was completed on a project led by the Forum for Kalamazoo County to create a basin-wide market for water quality improvement by developing a regional/watershed trading program and assisting with development of a state wide trading program in Michigan that could be transferred to other Great Lakes States. The success of this effort has led to the creation of a national network (the Great Lakes Trading Network – GLTN) to facilitate and share information on water quality trading activities, and establishing a framework, organization, and procedures for water quality demonstration trading at a national level. The GLTN has grown to include most of the active and developing trading organizations in the Great Lakes and the U.S.

Photo: Gary Williams

In 2001, the Fund awarded a follow-on grant to Keiser and Associates to expand the GLTN, promote market-based trading programs, and explore pilot projects that employ a "multiple-markets approach" to simultaneously achieve a variety of ecosystem benefits (i.e. water and air quality improvements, carbon sequestration, habitat enhancement).

Also in 2001, the Fund awarded a grant to the Environmental Resources Trust and a team of municipalities, management consultants, and power generators to identify, quantify, and verify environmental improvements associated with renewable energy sources and implement the EcoPower℠ certification and tracking program in Illinois and Michigan. The City of Chicago has committed to purchase as much as 20% of its energy use from

Photo: Randall McCune (courtesy Michigan Travel Bureau)

renewable power supplied through ComEd/ERT by 2005 representing up to 400,000 MWh per year which will be the largest single renewable energy purchase in the country.

Two grants were awarded in 2001 that explore the use of insurance products to reduce risks and provide financial benefits to manufacturers and farmers in the basin. The Tellus Institute was awarded a grant to test the idea that insurance products can provide financial incentives to promote pollution prevention in industry. Tellus will lead a team of insurance companies and Great Lakes industries to test the concept that individual companies and their insurers can benefit financially from insurance products that reward a company's effort to eliminate toxic pollutants at their source.

American Farmland Trust's Agricultural Conservation Innovation Center (ACIC) was awarded a grant to 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. Both of these grants will test how financial products and incentives can be used to improve the health of the Great Lakes.

Exploring New Ideas

In addition to the areas of interest discussed above, Fund grantees remained active on a variety of projects, each exploring how the Great Lakes ecosystem can be made healthier.

In 2001, the Great Lakes Community Foundation Collaborative (GLCFC) increased support by 28-fold for twenty-seven Great Lakes community foundations to develop and implement strategies to address watershed, brownfield, or land use issues in the Great Lakes. Based on this success, the Fund in 2001 awarded a grant to the Council of Michigan Foundations to expand the membership of the GLCFC and create a new web-based learning network to educate community leaders about the role that local foundations can play in improving the health of the Great Lakes ecosystem. Participating community foundations will undertake locally developed projects to protect local watersheds, improve shoreline water quality, and preserve open space.

The Fund welcomes new ideas that have the potential to improve the ecological well being of the basin.

Also in 2001, the Center for Clean Air Policy was awarded a grant to lead representatives from agencies, non-profits, the energy sector, and State public benefit funds to design and develop selection criteria to support energy efficiency and renewable energy projects with public benefit charge funds. Specifically, the team will design and test criteria to support energy efficiency and renewable energy projects that reduce the maximum amount of toxic atmospheric emissions – especially mercury, dioxins and furans, and cadmium – entering the Great Lakes each year.

New Opportunities

In future years, the Fund will continue to invest the endowment's proceeds in a portfolio of projects that test how management actions can efficiently improve the health of the Great Lakes ecosystem – by identifying resource improvement opportunities and protecting the basin's natural resources. Efforts to prevent biological pollution and create markets for environmental improvements will continue to be a focus of the Fund's activity. New initiatives that identify processes and pathways that demonstrate how human needs for Great Lakes water can be met while improving the health and integrity of the Great Lakes ecosystem will also be a priority.

The Fund also knows that there will be project opportunities in areas that we have not anticipated. The Fund welcomes new ideas that have the potential to improve the ecological well being of the basin. Characteristics of successful projects include tangible ecological outcomes, a pragmatic work plan, and a project team that includes all affected interests. Project teams are encouraged to contact the Fund and discuss their ideas.

Photo: S.D. Mackey

Grants Awarded in 2001

The Great Lakes Protection Fund's Board of Directors approved the following projects, representing a $2,668,000 investment in the future of the Great Lakes. These projects continue the Fund's efforts to prevent Chemical Pollution, Biological Pollution, and use Market-based Mechanisms to enhance and restore the heath of the Great Lakes ecosystem.

For more information, contact the project manager listed below:

$373,000 Tellus Institute

Tellus Institute will lead a team of insurance companies, technical assistance providers and Great Lakes industries to demonstrate that both individual companies and their insurers can benefit if insurance products are structured to promote and reward a company's effort to eliminate toxic pollutants at their source. The goal of the project is to reduce the build-up of persistent, bioaccumulative, and toxic chemicals (PBTs) in the Great Lakes basin ecosystem by promoting pollution prevention through incentives embedded in insurance products.

Contact: Karen Shapiro
617-266-5400 ext. 244

$300,000 Center for Clean Air Policy

The Center for Clean Air Policy will lead a team of representatives from agencies, non-profits, the energy sector, and State public benefit fund leaders to demonstrate the benefits of applying selection criteria to support energy efficiency and renewable energy projects with public benefit charge funds. Specifically the team will design and test criteria to support energy efficiency and renewable energy projects that reduce the maximum amount of toxic emissions-especially mercury, dioxins/furans and cadmium-deposited from the air into the Great Lakes.

Contact: Stacey Davis
202-408-9260

Photo courtesy Applied Ecological Services, Inc.

$373,000 American Farmland Trust

American Farmland Trust's 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.

Contact: Jim Cubie
843-958-8777 ext. 204

$525,000 Environmental Resources Trust

The Environmental Resources Trust and a team of municipalities, management consultants, and power generators, will identify and package green power sources such as new sources of electric power generated by burning landfill gas in the Chicago metropolitan area and by wind power from new electric turbines (wind mills) built in Michigan's northern lower peninsula. The team will brand, tag, and verify blocks of power as "EcoPower" which will be marketed initially to power cooperatives in Northern Illinois and Michigan.

Contact: Barney Brannen
202-785-8577

$250,000 Council of Michigan Foundations

The Council of Michigan Foundations will work to expand membership in the Great Lakes Community Foundation Environmental Collaborative (the Collaborative) and create a new learning network to educate community leaders about the role that local foundations can play in improving the health of the Great Lakes ecosystem. Participating community foundations will undertake locally developed projects to protect local watersheds, improve shoreline water quality, and preserve open space.

Contact: Robert S. Collier
616-842-7080

$155,000 Kieser and Associates

The Great Lakes Trading Network (GLTN) will promote market-based trading programs as well as explore pilot projects that employ a "multiple-markets approach" to simultaneously achieve a variety of ecosystem benefits (i.e. water and air quality improvements, carbon sequestration, habitat enhancement).

Contact: Mark S. Kieser
616-344-7117

$647,000 Northeast-Midwest Institute

Northeast-Midwest Institute will lead a team that includes the Lake Carriers Association, Stolt-Neilsen Transport Group, and a team of scientists and engineers to develop and install a full-scale ballast treatment system on a working chemical tanker (M/T Aspiration), assess its biological and engineering effectiveness, and conduct a dockside assessment of a new filtration-UV ballast treatment system.

Contact: Allegra Cangelosi
202-464-4007

$45,000 Business for Social Responsibility

Business for Social Responsibility will lead a team of shippers, customers, scientists, and others to build a risk analysis and management tool that allows companies that move goods via ship to identify and manage the ecological impacts of their shipping choices.

Contact: David Monsma
415-537-0890 ext. 129

Application Procedures

Individuals, not-for-profit organizations, government agencies, and businesses which identified a significant regional opportunity to improve the health of the Great Lakes and have a pragmatic plan to exploit that opportunity are encouraged to apply to the Fund for support. The Fund also welcomes projects that are designed to test, manage, or demonstrate how certain "master variables" when acted upon, will result in tangible improvements to the health of the Great Lakes ecosystem.

The first step in the Fund's formal review process is the submission of a brief preproposal that summarizes the proposed project. The Fund will accept preproposals at any time. After a favorable evaluation of a preproposal by a committee of the Fund's Board of Directors, a full project proposal is invited. Fund staff and independent technical experts review all proposals. The Fund's Board of Directors expects to make award decisions at their March, June, September and December meetings.

Complete funding guidelines can be obtained from the Fund's office or found at the Fund's website: http://www.glpf.org.

State Shares Report

In addition to the Fund's support of regional projects, one third of the corporation's net earnings are paid to member states in proportion to their share of the permanent endowment. Each state uses its share to support local projects that are consistent with that state's Great Lakes priorities. Additional information, including funding guidelines and application procedures can be obtained from the individuals listed below:

Illinois
Rick Coffman
217-524-9914

Minnesota
Gretchen Sable
651-296-0676

Ohio
Jeffrey Busch
419-245-2514

Wisconsin
Kim Walz
608-264-9220

Michigan
Emily Finnell
517-241-7927

New York
Donald Zelazny
716-851-7130

Pennsylvania
Kelvin Burch
814-332-6816

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