

The Great Lakes Legacy Act:

Fifteen Years of Successful Partnerships for Sediment Remediation in the Great Lakes

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February 12, 2019



A Walk Down Legacy Lane





Presentation Overview

- GLLA overview
- Cost Sharing
- Project examples
- Revitalization

Keys to the Great Lakes Legacy Act

Goal: Accelerate the pace of sediment remediation at Areas of Concern (AOCs)

Mechanism: Use *partnerships* as an innovative approach to conducting sediment remediation in a non-enforcement capacity

Minimum 35% Non-Federal *match* required

Great Lakes Areas of Concern

Status

- ★ Delisted Areas of Concern (AOCs)
- ▲ AOCs with Management Actions Completed
- Remaining Areas of Concern



Status: MAY 2018

GLLA Project Types

Must be in U.S. Areas of Concern (AOCs) and:

- 1) Implement a plan to remediate contaminated sediment (highest priority)
- 2) Monitor or evaluate contaminated sediment
- 3) Prevent further or renewed sediment contamination
- 4) Site Characterization at 100% Federal expense
- 5) Habitat Restoration in conjunction with sediment remediation



Overarching Principles of GLLA

- Uses a **partnership** approach to conduct environmental cleanups
- **Partnerships** and **community involvement** are the keys to success of the GLLA
- GLLA cleanups can lead to **community revitalization**
- GLLA is an important tool for removing **Beneficial Use Impairments** at Great Lakes AOCs



Cost-Sharing Basics

Types of Cost-Share

- Cash
- **In-kind Contributions**
such as:
 - Staging areas
 - Landfill space
 - Technical assistance
 - Transportation and Disposal services

Who are the non-federal sponsors?

- States
- Industries
- Municipalities
- Non-governmental Organizations
- A combination of the above



State or Local Cost-Share Partners

States

- State of Ohio
- State of Wisconsin
- State of Minnesota
- State of Indiana
- State of Michigan

Cities

- City of Waukegan
- City of Toledo
- City of Cleveland
- City of Sheboygan

Counties

- Milwaukee County Parks
- Niagara County
- Sheboygan County

Port Authorities

- Ashtabula City Port Authority
- Cuyahoga County Port Authority
- Port of Cleveland

Water management & Non-profits

- East Chicago Water Management District
- Buffalo Niagara Riverkeeper
- Gary Sanitary District

Industries (44) Involved in GLLA Projects

DuPont Co.
GenCorp Inc.
Honeywell International Inc.
Illinois Tool Works, Inc.
United Technologies
Allied Waste Industries, Inc.
Phelps Dodge Corp. (Now
Freeport-McMoRan)
Cabot Corp
Detrex Corp
XIK Corp
Consumers Energy
Varta Microbattery, Inc.
The Mosaic Co.
BP-Husky Refining
Wisconsin Public Service

BASF Corp.
Arkema Corp
Wisconsin Public Service
Pollution Risk Services
Cleveland Illuminating Co.
Mallinckrodt Inc
Millennium Inorganic
Chemicals
Ohio Power
Olin Corp
Occidental Chemical
RMI Titanium Co
Sherwin Williams
Union Carbide
CBS Operations (Viacom Intl)

Elkem Metals
Perstorp Polyols, Inc.
Chevron USA
Sunoco, Inc
Pilkington North America
U.S. Steel
Ford
Tyco Fire Products
Fraser Shipyard
NIPSCO
We Energies
BP Products North America
Inc.
ArcelorMittal
Atlantic Richfield Co.
TDY Industries LLC.

Why do industries choose to be a cost-share partner?

- GLLA provides funding
- GLLA Funding for “unassigned” contamination
- Reduced potential for future liability
- Cooperative and Collaborative Approach
- Participate in a fast-track program
- Good Public Relations

Why do industries choose to be a cost-share partner? (Cont'd)

- Project can proceed in phases
- Have a seat at the table in decision making
- Can include habitat work
- Leverage EPA's technical expertise





Project Highlights

The Proof is in the Pudding!



Black Lagoon

Detroit River AOC

- **Project Highlight:**
First GLLA project
 - 2005
 - First project to use a USACE CDF
- **Sediment Remediated:**
116,000 cubic yards
- **Cost Share Partner:** Michigan DEQ



Black Lagoon in 1961



“It is truly wonderful to come together with all our partners to celebrate the completion of a 23-year effort to clean up contaminated sediment, restore habitat, further economic revitalization through marina development, and remove the stigma of the Black Lagoon.”

-Jerry Brown, City of Trenton Mayor, 2007

Ashtabula River

Ashtabula AOC

- **Completed:** Dec. 2012
- **Project Highlights:**
 - First project with a **consortium of industries** as cost-share partners
 - Constructed a TSCA CDF
- **Sediment remediated:** 497,000 cubic yards
- **Cost-Share Partners:** Cabot Corp, Detrex Corp, Elkem Metals Co. L.P., Cleveland Electric Illuminating Co, GenCorp Inc, Mallinckrodt Inc, Millennium Inorganic Chemicals Inc, Occidental Chemical Corp, Ohio Power Co, Olin Corp, RMI Titanium Co, Sherwin-Williams Co, Union Carbide Corp, Viacom International Inc, Ashtabula City Port Authority, Ohio EPA





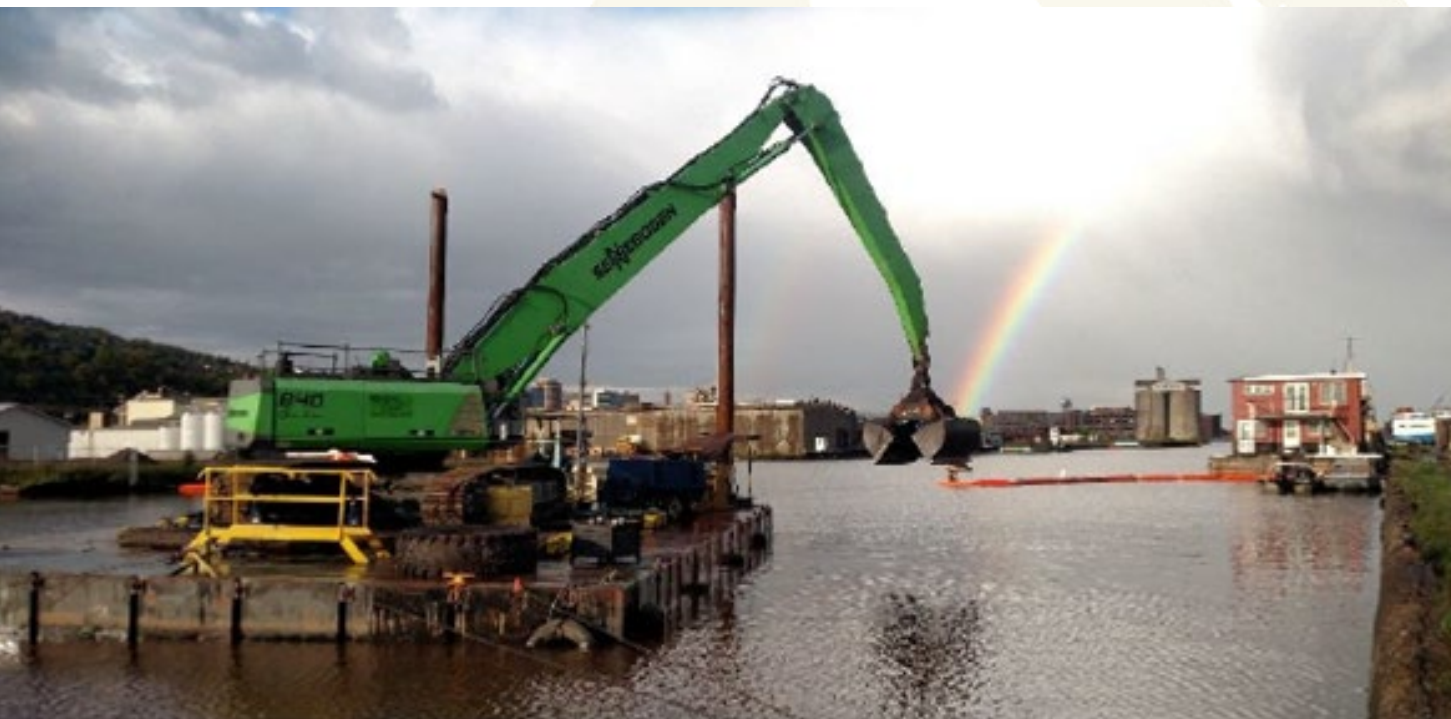
07/06/2006



5/29/2007

2018 Completed GLLA Projects

- Minnesota Slip, Slip 3, Slip C: St. Louis River AOC
- Zephyr Refinery: Muskegon AOC



Mn Slip

St. Louis River
AOC

- **Completed in November 2018!**
- **Project Highlight:**
Moved the William A Irvin ship
- **Sediment remediated:**
37,000 cubic yards
- **Cost-Share Partners:**
Minnesota Pollution Control Agency



Canal Park 1971



Zephyr Refinery *Muskegon Lake AOC*

- **Project Highlight:**
- **Habitat Restored:**
15 acres of wetland
- **Sediment remediated:**
50,000 cubic yards
- **Cost-Share Partners:** MDEQ - Remediation Restoration Division







The R³ Paradigm:

"Its not just sediment remediation"



R 
Remediation

R 
Restoration

R
Revitalization

R³ – Revitalization

- Cleaning up contamination
- Restoring habitat for fish and wildlife



- Facilitates revitalization of coastal communities and urban waterfronts

Revitalization Example Sites

- **Kinnickinnic River, Milwaukee, WI
(Completed 2009)**
- **Sheboygan River, Sheboygan, WI
(Completed 2012)**
- **Buffalo River, New York
(completed 2014)**



Kinnickinnic River *Milwaukee River AOC*

- **Completed:** Oct. 2009
- **Project Highlight:** removal of contaminated sediment and debris made navigation of the river possible
- **Sediment remediated:** 167,000 cubic yards
- **Cost-Share Partners:** Wisconsin DNR

Cleaner and Deeper: The winning combination for revitalization



Before

After






R1ver Multi-use
Campus:
Waterfront as a Live
Interface

► *Integration of*

- *Business*
- *Green space*
- *Recreation*
- *Community living*

*Waterfront now a vital intersection
of economy.*

Social and Economic Benefits of Kinnickinnic River Sediment Cleanup

- 
- **Waterfront Economic Revitalization**
 - **Fully Restored Navigation Depths**
 - **Improved & Stabilized Shoreline**
 - **Enhanced Use of River Resource**
 - **Stigma of Contamination Removed**
 - **Potentially Increased Property Value**
 - **New Redevelopment Opportunities**

“Without the dredging and cleanup of the Kinnickinnic River, this boatyard would be out of business.” – Chris Svoboda, Owner, Pier Milwaukee

“If not for the river sediment cleanup, we never would have invested in redeveloping the old foundry site.” – Dave Ferron, Property and Real Estate Manager, Paul Davis Restoration



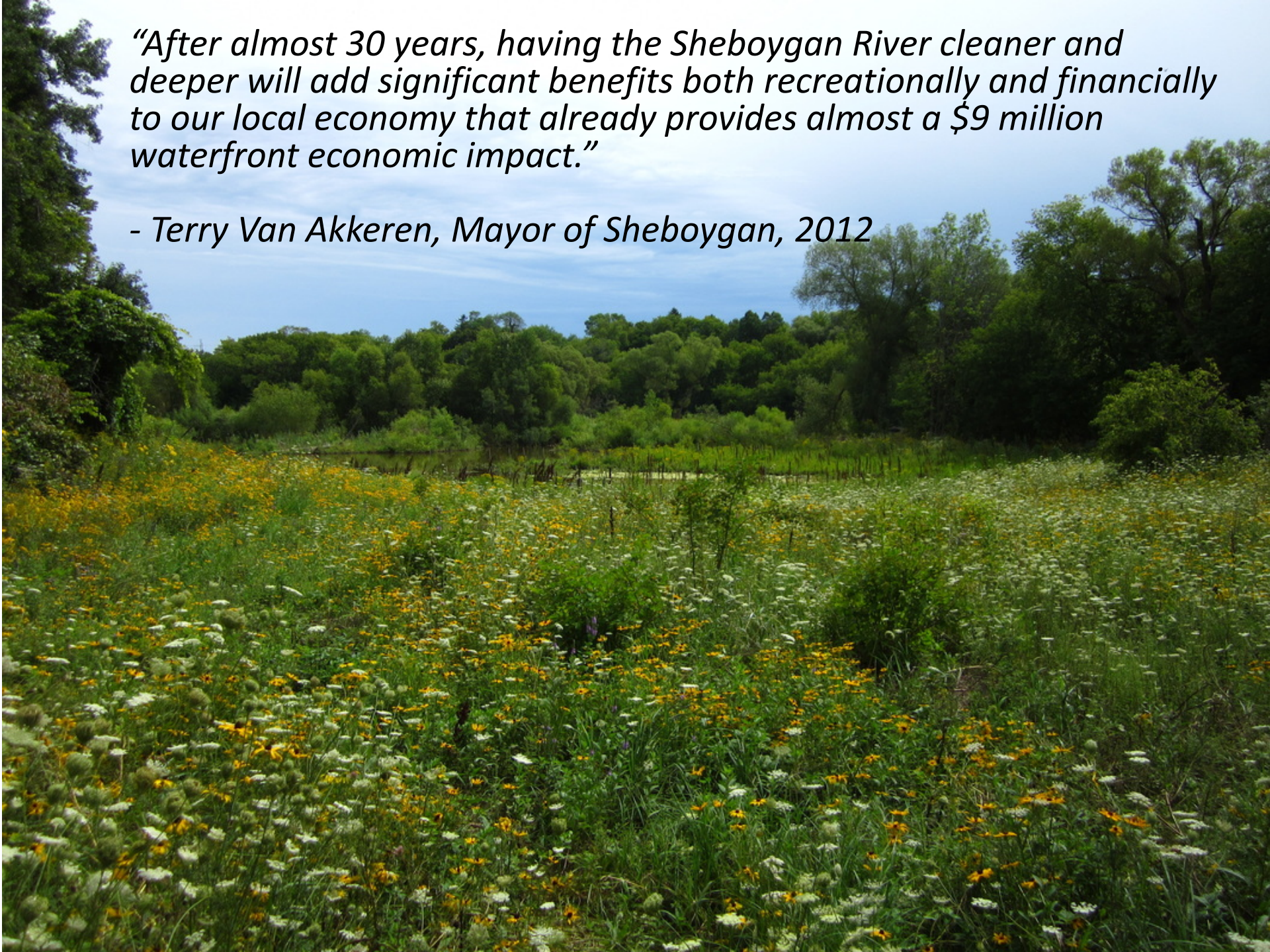
Sheboygan River


Sheboygan River AOC

- **Completed:** Dec. 2012
- **Sediment remediated:** 148,000 cubic yards
- **Cost-Share Partners:** Wisconsin DNR, Sheboygan County, City of Sheboygan Pollution Risk Services, Wisconsin Public Service Corp.

“After almost 30 years, having the Sheboygan River cleaner and deeper will add significant benefits both recreationally and financially to our local economy that already provides almost a \$9 million waterfront economic impact.”

- Terry Van Akkeren, Mayor of Sheboygan, 2012

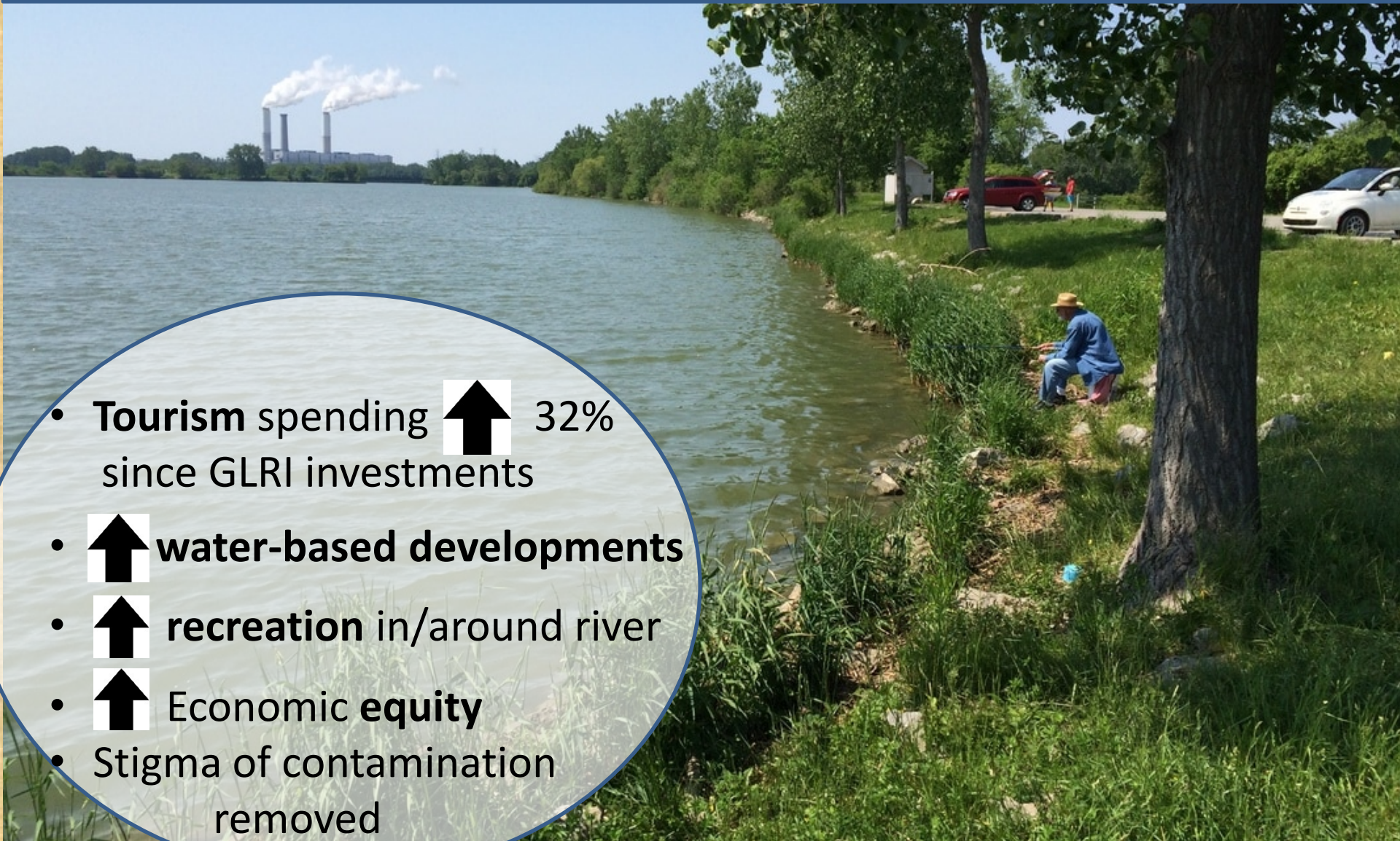


A woman in an orange shirt and a young child in a striped shirt are standing on a concrete walkway with a blue metal railing, looking out over a body of water. In the background, there is a large industrial structure, possibly a crane or bridge under construction, and several boats docked along the shore. The scene is set outdoors on a bright day.

“Cleaner,
Deeper, Mom!”

Sheboygan, WI

- **Tourism** spending  32% since GLRI investments
-  **water-based developments**
-  **recreation** in/around river
-  **Economic equity**
- Stigma of contamination removed





Buffalo River

Buffalo River AOC

- **Completed:** 2014
- **Project Highlights:**
 - Used a USACE combined disposal facility
 - Work was done in conjunction with USACE navigation dredging
- **Sediment remediated:** 1,045,000 cubic yards
- **Cost-Share Partners:** Honeywell, Buffalo-Niagara Waterkeeper

BuffaloSkyCam





7 acres restored



Buffalo, NY

- Further **economic investment** stimulated
 - Ralph C. Wilson Jr. Foundation awarded \$3 million to the Buffalo Niagara Waterkeeper to increase eco-tourism, improve recreational access, and encourage community revitalization.
- Increased water-based **recreational use**
- **Millennial investment**
 - Millennial population has increased by 12%



“Nobody would have even thought of recreating on it except for the most adventurous, and now it’s really become a playground in the best sense of the word.”

–Dave Stebbins Buffalo Urban Development Corporation vice president

Sustainable Economic and Social Community Gains

Seen through:

- Stigma Removal
- Tourism
- Recreation
- Higher property values
- Millennial investment/interest
- Increased community investment
- Enhanced quality of life
- Sustainable water-based development

The Cost-Sharing Approach to Sediment Remediation Works!

- **24 remediation projects** completed
- **3** additional remediation projects underway or signed agreements in place
- **4.3 million cubic yards** of contaminated sediment remediated
- Over **100 acres** of habitat restored
- **Approx. \$760 million for remediation projects (completed, underway, signed)**

Funding

– **\$435 million** GLLA federal dollars

Leveraged:

– **\$329 million** of non-federal funds

Conclusion: 15 Years of Success



Picture!

After 15 years this model of **partnerships** and **collaboration** has demonstrated to be successful for **cleaning up AOCs** and **revitalizing communities**.



Questions?