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GREAT LAKES REVIVAL

How Restoring Polluted Waters Leads to
Rebirth of Great Lakes Communities



**DURING THE 1960S THE DETROIT RIVER WAS ONE
OF THE MOST POLLUTED RIVERS IN THE U.S.**



Substantial improvements in the Detroit River have occurred as a result of pollution prevention and control, and Great Lakes Restoration Initiative and Great Lakes Legacy Act: including:

- ❑ \$28.6 million in habitat restoration
- ❑ \$9.3 million in contaminated sediment remediation of Black Lagoon
- ❑ Invasive species management
- ❑ Brownfield cleanup



ECOLOGICAL RECOVERY

- ❑ 25 or more active Bald Eagle nests in SE Michigan after a 25-year absence
- ❑ Peregrine Falcons reintroduced in Detroit in 1987 and 30 young fledged in 2016
- ❑ Osprey nested in Gibraltar in 2009, representing the first successful nesting in Wayne County since 1890s
- ❑ Sturgeon reproduction first documented in 2001 for the first time in 30 years; have built six spawning reefs
- ❑ In 2006, whitefish spawning was documented in the Detroit River for the first time since 1916
- ❑ In the 1970s, the walleye population was considered in crisis; today we are considered part of the “Walleye Capital of the World”
- ❑ Beaver are back in six locations in the watershed



Detroit Riverfront in the Early 2000s



DETROIT RIVERWALK

- \$110 million raised in the first 10 years
- In addition, \$40 million invested in an endowment to operate, care, maintain, and steward the Detroit RiverWalk



ECONOMIC BENEFITS (CSL INTERNATIONAL, 2013)

CONSTRUCTION IMPACTS	
Riverfront construction and land value	\$1.548 billion
Portion attributable to riverfront	\$639 million
Construction period jobs	16,700
ANNUAL IMPACTS	
Total annual spending by visitors, residents, and employees	\$43.7 million
Combined annual spending: 2003-2013	\$360.6 million
Annual positive media value	\$600,000
Annual jobs	1,300
Total annual tax revenue generation	\$4.5 million

TOTAL PUBLIC AND PRIVATE INVESTMENT IN THE FIRST 10 YEARS - \$1 BILLION



***WITHOUT THIS EARLY
FOCUS ON CLEANING UP
THE RIVER AND IMPROVING
WATER QUALITY, THIS
TRANSFORMATION OF THE
RIVER'S EDGE WOULD NOT
HAVE BEEN POSSIBLE.***



***MARK WALLACE, PRESIDENT AND
CEO OF DETROIT RIVERFRONT
CONSERVANCY***



- Wooden debris and substantial oil pollution
- Sparks from a passing train ignited fire
- Flames climbed five stories
- Fire lasted 30 minutes with \$50,000 damage to bridges

1969 CUYAHOGA RIVER FIRE – 50 YEARS AGO



LONG HISTORY OF RIVER FIRES

**FIRES OCCURRED IN 1868, 1883, 1887, 1912, 1922, 1936,
1941, & 1948**

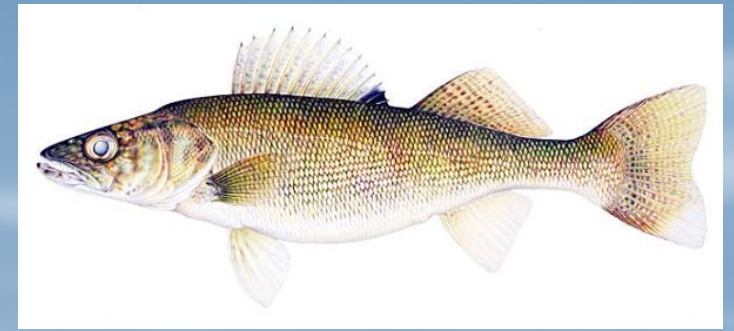
**THE 1952 FIRE WAS A FIVE ALARM FIRE WITH \$1.5
MILLION OF DAMAGE**

WATER POLLUTION OF THE CUYAHOGA LED TO PUBLIC OUTCRY THAT LED TO CLEANUP

- The Northeast Ohio Regional Sewer District has spent over \$2 billion on wastewater treatment facilities and collection system improvements since 1972
- More than \$850 million has been spent on reducing combined sewer overflows by nearly 50%
- The district is now implementing its Combined Sewer Overflow Long Term Control Plan over a 25-year period at a cost of \$3 billion
- More than \$9 million has been spent on habitat restoration between 2010 and 2017
- U.S. Army Corps of Engineers dredges approximately 225,000 cubic yards of sediment each year from the navigational channel and places them in confined disposal facilities along the Lake Erie shore

REVIVAL OF THE CUYAHOGA RIVER

- In 1969, when the Cuyahoga River last caught fire, there were few, if any, fish in the lower river
- Today you can find 70 species of fish, including many pollution-sensitive species like smallmouth bass
- Pollution-sensitive benthic macroinvertebrates are present in most reaches, and peregrine falcons, bald eagles, and osprey have returned
- The Flats now have resident blue and green heron, cormorants, and seasonal visits from migrating birds and waterfowl



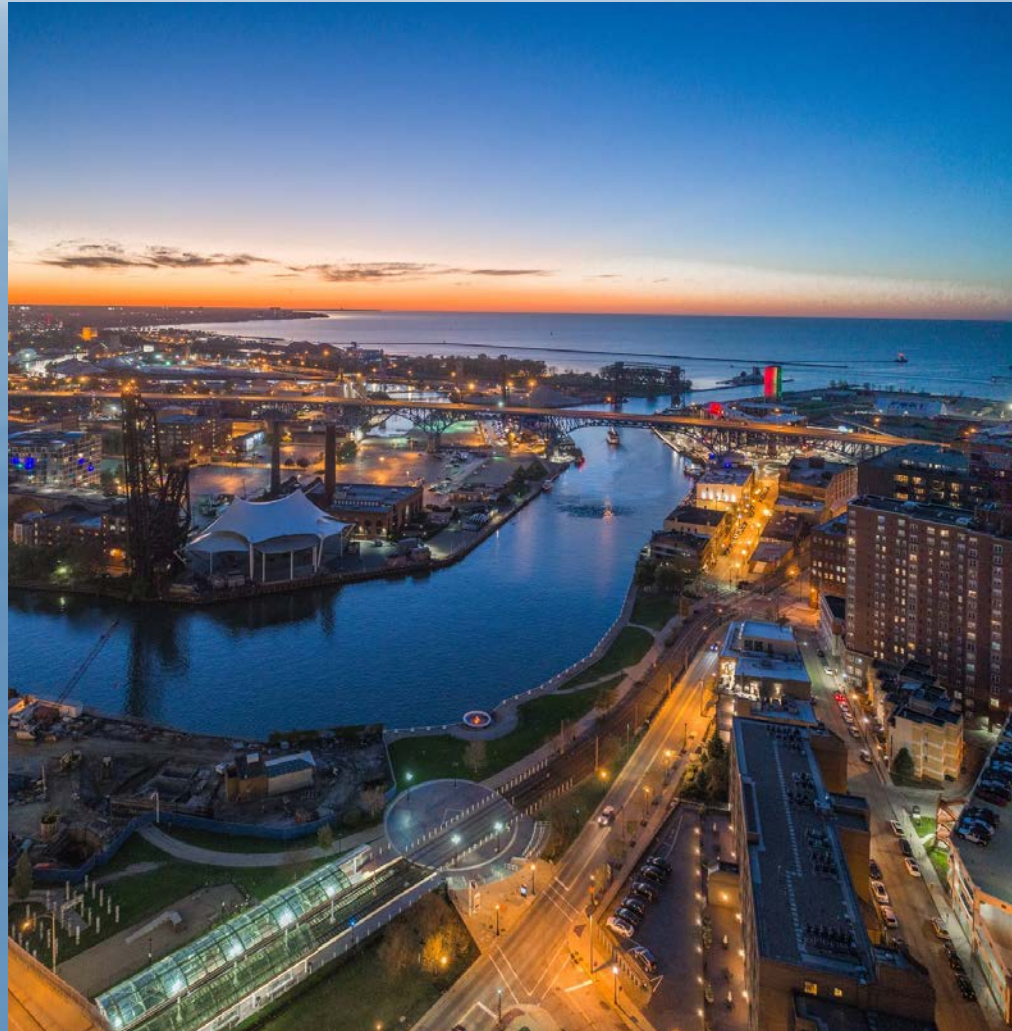
FLATS REVITALIZATION

- Since 2012, the Flats has experienced \$750 million in economic development
- In addition, \$270 million of new Flats development projects are in the planning phase



Without the cleanup of the Cuyahoga River, the revitalization of the Flats would not have been conceivable. The revival of the Cuyahoga River has been a major catalyst for this revitalization.

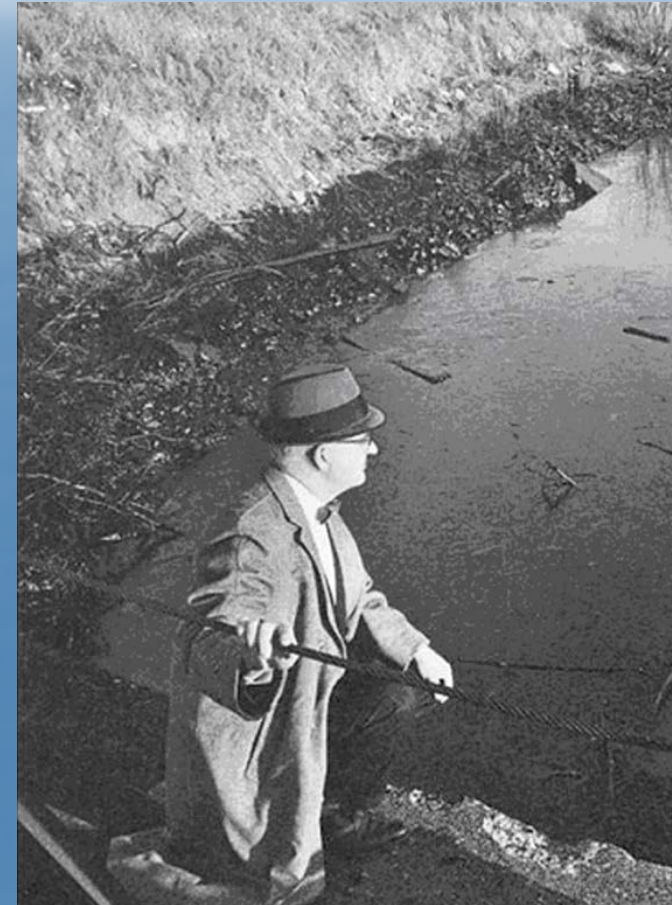
Melinda Gigante, Director of Flats Forward



BUFFALO RIVER – A REPULSIVE HOLDING BASIN IN THE LATE 1960S

- By the 1950s and 1960s, both industrial and municipal effluents were overwhelming the Buffalo River and no fish were caught in the river
- Buffalo River caught on fire on Jan. 24, 1968
- *The Buffalo River is a repulsive holding basin for industrial and municipal wastes. It is devoid of oxygen and almost sterile. Oil, phenols are present in large amounts.*

FWPCA, 1968



RIVER CLEANUP LEADS TO COMMUNITY REVITALIZATION

- The Buffalo Niagara Waterkeeper and many partners have worked through GLRI to remediate over 866,000 cubic yards of contaminated sediment at a cost of \$56.5 million and to restore two miles of shoreline habitat and 20 acres of wetland, riparian, and upland habitats at a cost of \$25 million
- A cleaner river has led to improved public access
- This has led to economic revitalization
- Between 2012 and 2018 nearly \$428 million of waterfront development has occurred along the Buffalo River





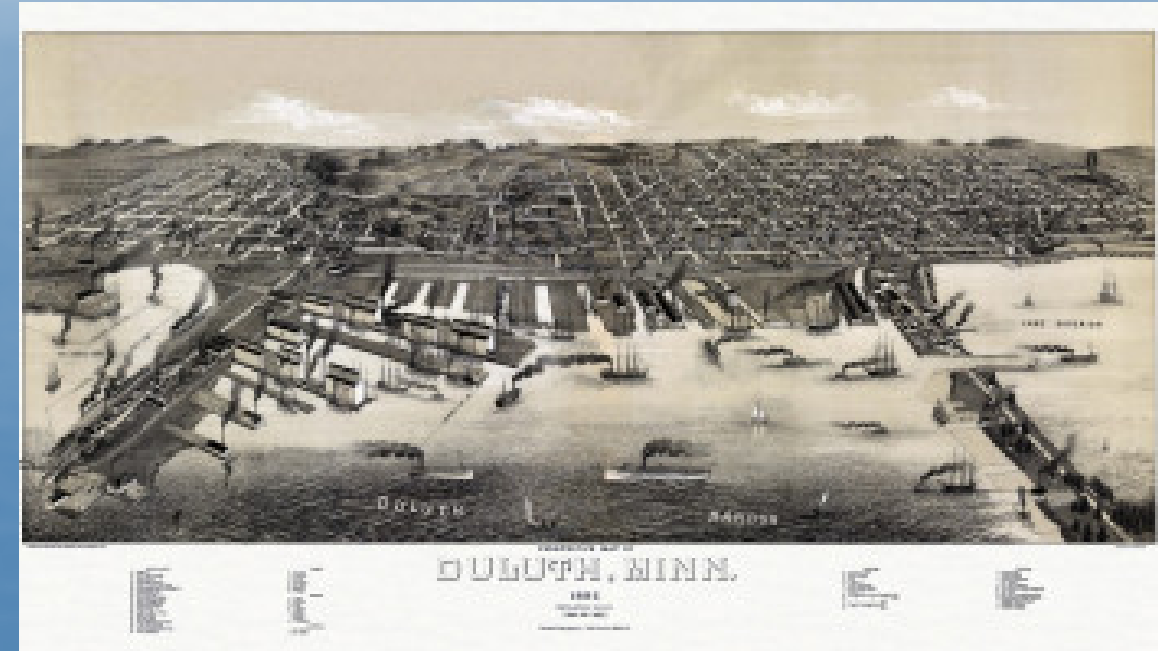
Buffalo River, 2014



Redevelopment of Buffalo's
Waterfront Today

ST. LOUIS RIVER/BAY – DULUTH, MN

- Located at the western end of the Great Lakes-St. Lawrence Seaway
- During the early 1900s Duluth was the busiest port in the United States, surpassing New York City in gross tonnage
- Long history of industry and legacy pollution



CLEANUP AND RESTORATION

- \$15 million in habitat restoration
- \$158.6 million in contaminated sediment remediation thus far
- Good example of collaborative financing where GLRI leveraged Minnesota Outdoor Heritage funds, local bonds, Port Authority funds, and others
- An additional \$155-170 million will be needed to implement all necessary remedial actions identified in the RAP



COMMUNITY AND ECONOMIC REVITALIZATION

- Cleanup and restoration have led to improved public access to the waterfront
- A renewed St. Louis River and improved public access has led to community and economic revitalization
- New waterfront developments include a \$34 million resort that converted a cement terminal into a luxury resort and a \$38 million mixed-use housing development



DULUTH EMBRACING ITS RELATIONSHIP WITH THE RIVER AND LAKE

There is no question that if not for Lake Superior, Duluth would be defined as a river city. Duluth should be defined by both the world's greatest lake AND the world's largest fresh water estuary. By doing so, we open up many possibilities along the River.

Duluth Mayor Don Ness

TAKE HOME MESSAGES

- Cleanup of Areas of Concern leads to reconnecting people to these waterways that leads to community and economic revitalization
- GLRI and GLLA have been the key elements in the success of restoring Areas of Concern
- Such case studies provide compelling rationale to sustain funding of GLRI and GLLA to finish the job of restoring all Areas of Concern
- Investing the Great Lakes cleanup means investing in community revitalization

**THANK YOU FOR ALL YOUR
SUPPORT TO KEEP OUR
LAKES GREAT!**

GREAT LAKES REVIVAL

How Restoring Polluted Waters Leads to
Rebirth of Great Lakes Communities



iaglr.org/aocdocs/GreatLakesRevival-2019.pdf

