



A GREEN INFRASTRUCTURE COMPARISON

By comparison other cities are investing a great deal more. Philadelphia will spend \$1.2 billion over 15 years to address these same issues. Increased green infrastructure would result in a much more significant positive impact.

Green Infrastructure Construction Comparison Impacts

Construction Jobs: 32,156 **Business Revenue:** \$2.9 billion
Tax Revenue: \$102 million **Income:** \$1.6 billion

Green Infrastructure Operations and Maintenance Comparison Impacts

Permanent Jobs: 1,162 **Annual Business Revenue:** \$121 million
Annual Tax Revenue: \$4 million **Annual Income:** \$66 million

Cumulative Wastewater Treatment Comparison Avoided Costs

\$4.6 million in savings

PUBLIC INVESTMENTS IN PUBLIC PARKS AND AMENITIES

The City of Chicago and Chicago Park District have created wonderful new public open spaces along the river including miles of trail, new or improved riverfront parks, and public boat launches. Their investments in underbridge connections, parkland, soon-to-be-boathouses and the Chicago Riverwalk are excellent examples of how municipalities have established new and better access to a cherished and needed natural and recreational resource. The projects examined in this report totaled \$93 million.

Construction Impacts

Construction Jobs: 1,111 **Business Revenue:** \$160 million
Tax Revenue: \$3.4 million **Income:** \$84 million

Operations and Maintenance Impacts

Permanent Jobs: 60 **Annual Business Revenue:** \$6 million
Annual Tax Revenue: \$210,000 **Annual Income:** \$3 million

These findings provide a strong justification which underscores the urgent need for continued capital investment into improving the Chicago River. These investments support the local economy, reduce regulatory burdens, and improve quality of life. If we do not complete TARP, invest in green technologies regionally, and fully implement disinfection technologies at all the wastewater treatment plants that discharge to the Chicago River we will not have met the requirements of the Clean Water Act or the desires of the people who live, work, or visit the Chicago River watershed.

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Photographs are courtesy Friends of the Chicago River unless otherwise noted.

Friends of the Chicago River

Founded in 1979, Friends of the Chicago River is the only organization solely dedicated to the improvement and protection of the Chicago River. Friends' award-winning education and outreach programs, public policy and planning efforts, and on-the-ground projects have laid the foundation for the river to become one of world's greatest metropolitan rivers.

Find out more about Friends of the Chicago River at www.chicagoriver.org

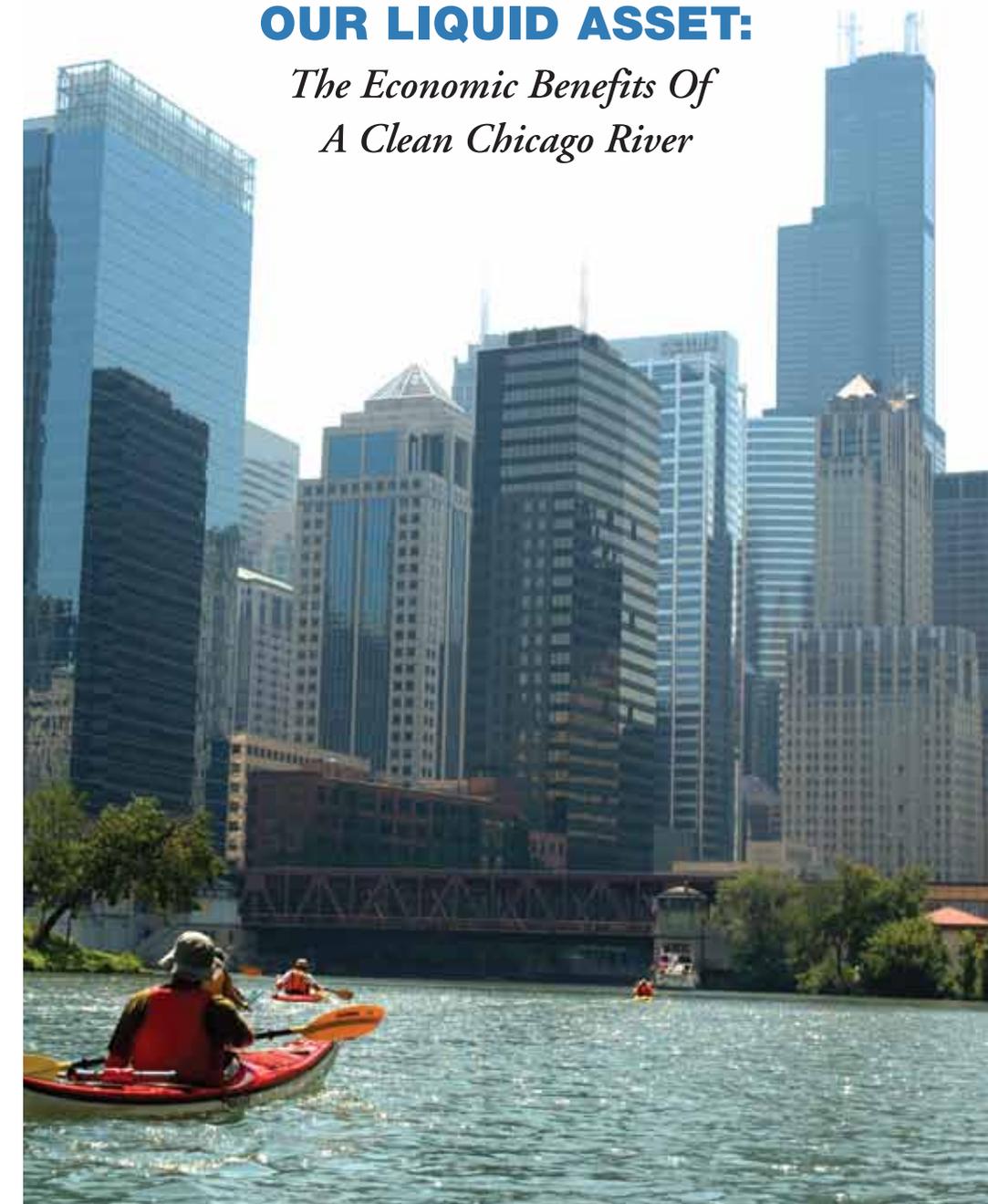


Founded in 1963, Openlands is one of the nation's oldest and most successful metropolitan conservation organizations, having helped secure, protect, and provide public access to more than 55,000 acres of land for parks, forest preserves, land and water greenway corridors, and urban gardens.

Find out more about Openlands at www.openlands.org

OUR LIQUID ASSET:

The Economic Benefits Of A Clean Chicago River



Friends of the Chicago River



OUR LIQUID ASSET:

The Economic Benefits Of A Clean Chicago River

Decades ago Chicago magazine published “Our Friendless River” when the Chicago River was still a neglected back alleyway full of sewage and trash. Since then the story has changed and the investments we have made in the Chicago River have had a powerful positive impact which can be measured in miles of trail, species of fish, and activity above, below, and along the water including whole new communities and riverfront uses.

The investments we have made, required by the Clean Water Act in some cases and inspired by pioneering vision in others have improved water quality, making the river a better home for wildlife and better resource for our communities.

However, we are not done yet.

We must continue to invest in infrastructure and ideas that will complete the Chicago River’s transformation to a true community resource which serves as a natural, recreational, and economic asset. Only then can the Chicago River become one of the world’s greatest metropolitan rivers.

Fortunately investing in the Chicago River pays us back—not only as a community resource but in income for people, income for business, income for government, and with much needed jobs. This study explores several of the essential investments that have or will contribute to the Chicago River’s continued improvement and how those investments will provide a return on our investments.

Looking at the Chicago River through an economic lens tells us:

- **A clean, accessible Chicago River is good for our economy:** Investing in clean water technologies like the Tunnel and Reservoir Plan (TARP), sewage effluent disinfection, green infrastructure, public parks, and other riverfront amenities generates business income, individual income, tax revenue, and jobs.
- **Each dollar invested provides a 70% return through business revenue, tax revenue, and income while creating 52,400 construction jobs and 846 permanent operations and maintenance jobs:** Completed, planned, and proposed construction results in nearly \$8 billion in business revenue, \$244 million in tax revenue, \$4 billion in income and related construction jobs. Operations and maintenance will generate \$130 million in business revenues, \$6 million in taxes, \$81 million in income and associated jobs, all of which will continue to accumulate annually.
- **Finishing the Tunnel and Reservoir Plan sooner will reduce flood damage faster:** Since the first TARP reservoir went on line in 1998, regionally we have avoided \$250 million in flood damage. Finishing the construction of the Thornton and McCook reservoirs will provide an additional savings of \$130 million per year.
- **Removing stormwater through green infrastructure saves money:** Urban development and engineering decisions often direct clean rain water into pipes directed to our sewage treatment plants where we pay for its treatment. Executing a regional green infrastructure plan would reduce the load.



- **New parks and public amenities increase property value and quality of life:** The City of Chicago and Chicago Park District have invested millions in land acquisition, improvement, and access which has already brought thousands of people to the river. Those investments, coupled with future planned projects, will provide more and better public access, new jobs and associated revenues, and an important tourist attraction with the emerging Chicago Riverwalk.
- **People want the Chicago River to be part of their lives:** Ninety-five percent of stakeholders surveyed indicated that the river has a positive effect on their quality of life, including important characteristics such as the quality of available water-based recreation opportunities and the scenic value of the river as a real estate amenity. This demonstrates that improvements to the Chicago River can provide significant value to people in addition to supporting jobs, business revenues, incomes and tax revenues.

BY THE NUMBERS

Total Economic Impact of Completed TARP, Disinfection at Three Plants, Green Infrastructure and City and Chicago Park District Investments

Construction Jobs: 52,400
Permanent Jobs: 846

Revenue: \$7.9 billion
Annual Revenue \$131 million

TUNNEL AND RESERVOIR PLAN

The Tunnel and Reservoir Plan (TARP) has already eliminated 85% of the combined sewer overflows (CSOs) that pollute the Chicago River and harm people and wildlife. Since the first TARP tunnels went on line in 1986, fish populations have increased from seven species to 70 and the riverfront has become the lifeblood of the city and suburbs it flows through. Finishing TARP will almost completely eliminate CSOs and drastically reduce flooding which causes tens of millions of dollars in damage each year. TARP to date has cost \$2.3 billion and its completion will cost \$1.3 billion more.

TARP Phase 1 Construction Impacts

Construction Jobs: 24,637 **Business Revenue:** \$4.1 billion
Tax Revenue: \$124 million **Income:** \$2.1 billion

TARP Phase 1 Operations and Maintenance Impacts

Permanent Jobs: 230 **Annual Business Revenue:** \$45 million
Annual Tax Revenue: \$2.8 million **Annual Income:** \$32 million

TARP Phase 2 Construction Impacts

Construction Jobs: 12,670 **Business Revenue:** \$2.1 billion
Tax Revenue: \$64 million **Income:** \$1.1 billion

TARP Phase 2 Operations and Maintenance Impacts

Permanent Jobs: 170 **Annual Business Revenue:** \$30 million
Annual Tax Revenue: \$930,000 **Annual Income:** \$16 million

Reduced Expenditures for Flood Damage Since 1998 Because of TARP
\$250 million

Avoided Costs from Flood Damage from TARP

Thornton: \$40 million/annually **McCook:** \$90 million annually

SEWAGE EFFLUENT DISINFECTION

Installing disinfection technologies at the three sewage treatment plants that discharge into the Chicago River will eliminate the harmful pathogens from the 1.2 billion gallons of sewage effluent that is discharged every day. Treating the effluent, which composes 70% of the water in the river system, will make the river safer for people to recreate in and on. Plans for disinfection are already underway for the two priority plants, Calumet and O'Brien. No definitive deadline has been set for Stickney despite emerging recreation use of the river downstream. Sewage effluent disinfection for Calumet and O'Brien will cost \$108 million. Disinfection at Stickney is estimated to be \$300 million more.



Construction for Calumet and O'Brien Plants Impacts

Construction Jobs: 1,141 **Business Revenue:** \$188 million
Tax Revenue: \$6 million **Income:** \$96 million

Operations and Maintenance for Calumet and O'Brien Plants Impacts

Permanent Jobs: 45 **Annual Business Revenue:** \$8 million
Annual Tax Revenue: \$510,000 **Annual Income:** \$6 million

Construction for Stickney Impacts

Construction Jobs: 3,202 **Business Revenue:** \$527 million
Tax Revenue: \$16 million **Income:** \$270 million

Operations and Maintenance for Stickney Impacts

Permanent Jobs: 73 **Annual Business Revenue:** \$14 million
Annual Tax Revenue: \$840,000 **Annual Income:** \$10 million

GREEN INFRASTRUCTURE

Developing and implementing a regional green infrastructure plan will reduce CSOs and runoff pollution while providing many ancillary benefits including protecting stormwater, reducing flooding, adding habitat, allowing for more and better public open space, and mitigating impacts of climate change. A \$500 million investment regionally over 15 years would reduce inputs to the sewer system 2.3 billion gallons.

Green Infrastructure Construction Impacts

Construction Jobs: 9,639 **Business Revenue:** \$864 million
Tax Revenue: \$31 million **Income:** \$477 million

Green Infrastructure Operations and Maintenance Impacts

Permanent Jobs: 268 **Annual Business Revenue:** \$28 million
Annual Tax Revenue: \$980,000 **Annual Income:** \$15 million

Cumulative Wastewater Treatment Avoided Costs

\$1.9 million

