

Economic Effects of AOC Remediation



CORE QUESTION:

Do efforts to restore Areas of Concern and improve aquatic ecosystems help contribute positively to revitalized coastal economies and cities in the Great Lakes region?

OVERVIEW

Areas of Concern (AOCs) are locations in the Great Lakes basin where a water body has experienced severe environmental degradation and has been designated for clean-up. The basin contains 31 AOCs, all of which were originally listed in 1987 under the binational Great Lakes Water Quality Agreement. Since then, the AOCs have undergone extensive remediation efforts aimed at enhancing water quality and restoring damaged ecological processes. As water quality and ecosystems improve, the sites become eligible for delisting. Between 2006 and 2014 four AOCs were delisted.

Each step toward restoration can have wide-ranging and little-understood impacts on nearby residential neighborhoods. Being listed as an AOC calls attention to an area's environmental degradation. At the same time, remediation brings significant levels of funding to an area and ultimately returns the site to a safer, more ecologically healthy state.

PROJECT DESCRIPTION

The project team will investigate how remediation activities at AOCs affect the composition and well-being of surrounding residential neighborhoods. Using U.S. Census data from 1970 to 2010, the team will track shifts in neighborhood characteristics such as population density, housing prices, and residents' income and educational levels. They'll look for changes associated with major AOC milestones, including the original 1987 listing, completion of specific remediation activities, improvement in various water quality parameters, and (if applicable) eventual removal from the AOC list.

The team will evaluate the relationship between housing prices and water quality by deploying the hedonic price method. This economic tool helps assign monetary value to ecosystem services by teasing out how the ecosystem services affect the market price of a residential home. In this case, the team will use regression statistical analysis to determine how much more money home buyers were willing to pay for a residential property as the water quality improved at a nearby AOC.



EXPECTED OUTCOMES

Through this project, the team will:

- Demonstrate to policymakers the long-term economic and social benefits of environmental remediation.
- Contribute to the body of environmental economics research focused on remediation and restoration of degraded sites.
- Provide a template for evaluating federally funded Great Lakes restoration projects.

The researchers will present their findings at conferences for Great Lakes resource managers and academic researchers. They will publish their findings in a suitable academic journal in environmental economics.

GET INVOLVED

The project team will interact with representatives from federal and state agencies, public advisory councils for the AOCs, and various non-profit organizations dedicated to improving Great Lakes ecosystem health.

CONTACT

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