

Economic Benefits of Remediating the Buffalo River, New York Area of Concern

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ABSTRACT. *This study estimates the economic benefits of remediation in the Buffalo River, NY Area of Concern (AOC) using two distinct empirical methods. One method analyzes the effects of proximity to the AOC on prices in the residential property market. The second uses a choice survey of recent home purchasers concerning the characteristics of homes and the river. After controlling for numerous structural, community, and spatial effects, the market analysis shows that single-family residential property prices south of the river are depressed due to their proximity to the AOC by \$118 million (5.4% of total market value). The impacts are greater for properties closer to the AOC. Prices to the north of the AOC do not appear to be affected. Recovery of \$118 million in property value losses could produce approximately \$4.7 million/year in new property tax revenues. Considering only the area for which the market study shows price discounts, the survey-based estimates reveal a willingness to pay (WTP) for full cleanup of the AOC of approximately \$250 million (14% of median-based market value). The reasons for discrepancies between the results of the two methods is a matter for further research.*

INDEX WORDS: *Hedonic analysis, conjoint choice, benefits estimation, Area of Concern, Buffalo River.*

INTRODUCTION

This paper presents estimates of the community economic benefits from remediation of the Buffalo

River, NY Area of Concern (AOC). The lower Buffalo River is one of 43 degraded areas in the Laurentian Great Lakes designated for priority remedial actions under the 1987 amendments to the Great Lakes Water Quality Agreement (<http://www.epa>

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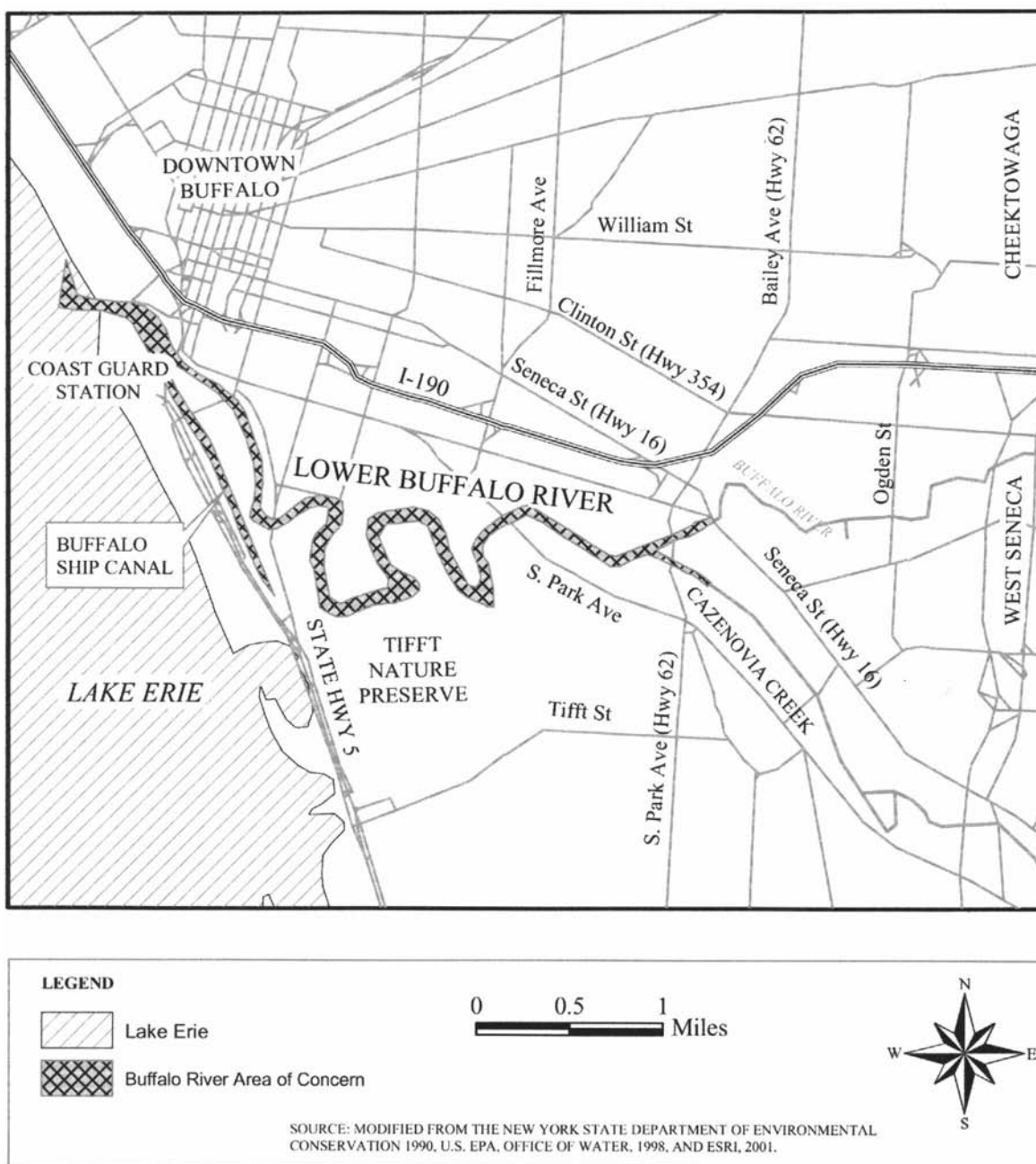


FIG. 1. Thematic map of the Buffalo River Area of Concern.

.gov/glnpo/aoc/index.html). While the sites differ in their specific environmental impairments, many, including Buffalo, contain toxic chemicals in their sediments.

The Buffalo River AOC encompasses 6.2 miles (9.9 km) of the river, at the eastern end of Lake Erie in New York State, up to the point of highest recorded backwater from the lake (Fig. 1 and <http://www.epa.gov/glnpo/aoc/buffalo.html>). Prior to the

completion of the Welland Canal, the Buffalo River and harbor was the trans-shipment point between the Great Lakes and the Erie Canal. A huge industrial complex grew up around it. That complex has been in decline for several decades, leaving behind a legacy of chemical contamination.

The AOCs in Buffalo and elsewhere impair not only local ecosystems and fisheries, but they may also stigmatize nearby properties. Out of concern

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