

Recycling Industrial Land in Michigan Cities

Janaya Crevier and Alicia De Jong. Supervisor Dr. Mark Bjelland.
Geography, Geology, and Environmental Studies Department, Calvin College

Introduction

Michigan, situated in the heart of the U.S. manufacturing belt, has hosted a variety of industrial operations (see chart). However, in the wake of deindustrialization, the state has been left with a legacy of brownfields: vacant industrial facilities that likely contain contamination and inhibit redevelopment.



Number of manufacturing firms in Michigan between 1947 and 2012. Data courtesy of census.gov.

Michigan's celebrated system of public subsidies for remediating and redeveloping contaminated sites emphasizes a market-based approach. The state provides grants and property tax-based incentives for private sector developers who wish to redevelop brownfield sites.

While this approach has been effective in the remediation of contaminated sites, it has also allowed prosperous cities with relatively small industrial legacies to receive a disproportionate share of public subsidies for redevelopment (Bjelland & Noyes, 2016).

Objectives

Using a case-study approach, this project examines how previously-used industrial land is recycled in four Michigan cities: Flint, Grand Rapids, Traverse City, and Benton Harbor.

An online Story Map Journal was created for each city in order to understand why brownfield programs appear to be more effective in some regions than others.

Results

Grand Rapids:



Between 1970 and 1930, nearly one third of the Grand Rapids' workers were employed in a furniture-related industry. While many furniture factories remain abandoned, others have been recycled, primarily into apartments and breweries. Focus on downtown redevelopment, however, has created an uneven distribution of public cleanup funds with peripheral industrial districts in low-income areas receiving little funding (see map above).

Benton Harbor:

Situated on the coast of Lake Michigan, Benton Harbor hosted a variety of industrial operations including manufacturing for the Whirlpool Corporation. Maintaining a commitment to local development, Whirlpool partnered with developers to initiate Harbor Shores. The project involves redeveloping 500 acres of former industrial land, including former Whirlpool factories and a Superfund site, into a premier 18-hole golf course, hotel, housing, and marina. The images below show the industrial facilities (left) that have since become the Harbor Shores Golf Club (right).



Images courtesy of U.S. Geological survey (1997) and Google Earth (2015).

Traverse City:

With the introduction of the Grand Rapids and Indiana rail line in 1872, Traverse City became more accessible to visitors. In recent decades, former sawmills, metal foundries, coal gas plants, and other heavily-polluting industrial operations are being remediated in favor of parks, hotels, and condominiums. Even the former Traverse City State Hospital has received funding for remediation and historical preservation. The images below show how the former Manufactured Gas Plant (left) has been transformed into Clinch Park (right).



Images courtesy of Traverse Area District Library and Google Earth (2015).

Flint:

In 1978, over half of Flint's residents were employed by General Motors. By the early 2010's, hundreds of acres of long, empty factories were demolished leaving unemployment and heavy contamination in their wake. Due to the expanse of sites (see map below) and lack of developer interest, redevelopment options are severely limited. Approximately 22 acres of the Chevy Commons site has been remediated for parkland.



Aerial view of Flint's Chevy Commons remediation in progress. Image courtesy of Google Earth 2016.

Conclusions

Using a combination of field observations of brownfield sites, conversations with city officials, and consultation of historical images and city directories, each Story Map Journal details successes and room for improvement in the respective cities. Amenity-rich cities such as Traverse City, have transformed their lakefront and riverfront industrial land into new greenspace, commercial and residential uses that benefit residents and tourists. In Grand Rapids and Benton Harbor, public-private partnerships have creatively recycled industrial land to remake their image. Meanwhile, vast expanses of brownfield sites in Flint languish with little chance for market-based remediation and redevelopment.

These Story Map Journals provide readers with a summary of Michigan's experience with brownfield redevelopment. They are being used in geography and urban planning classrooms and to educate local and state government leaders about the importance of industrial land recycling.

References

Bjelland, M., & Noyes, I. (2016). Urban Revitalization in a Neoliberal Key: Brownfield Redevelopment in Michigan. In Wise, N. and Clark, J. eds. Urban Transformations: Geographies of Renewal and Creative Change, London: Routledge.