The Economic and Fiscal Impact of Wisconsin's Brownfields Investments

Prepared for Wisconsin Economic Development Association
and Wisconsin Economic Development Institute

UNIVERSITY OF WISCONSIN WHITEWATER
Fiscal and Economic Research Center

Brownfields are defined as "abandoned, idle or underused industrial or commercial facilities or sites, the expansion or redevelopment of which is adversely affected by actual or perceived environmental contamination."

Since 1998, the State of Wisconsin has provided grants totaling $121.4 million to private industry and local governments to assist brownfields investigation, cleanup and redevelopment. When local and federal brownfields-specific incentives are included, the total is $162 million.

This study assessed the economic and fiscal impacts of a state, like Wisconsin, investing public funds into an initiative that cleans up and reuses brownfields properties. The following reflects the fiscal cost-effectiveness of the investments in the sites evaluated:

- $1.00 of state funds leveraged $27.25 in total funds, and $3,000 in state brownfields funding leveraged one job. These leverage ratios compare favorably to several national benchmarks.
- Over half of the state revenue outlay is recouped in state tax revenues from construction activities alone.
- Counting only the direct state revenues generated by the business occupants of newly created space, the state has cumulatively recouped $1.77 billion, a more than 14-fold return on investment.

Local governments gain $88.5 million annually in tax revenue from redeveloped brownfields, not including property taxes derived from the new or renovated buildings. On average, post-redevelopment assessed values exceed pre-development values at a ratio of 3.5 to 1.

The principal finding is that the Wisconsin's modest investment in brownfields programs over the last 17 years has translated into the leveraging of private and other public investment totaling 14 times the state's investment into Wisconsin's economy. Redevelopment of these brownfields properties also directly and indirectly created or resulted in the retention of 54,483 permanent jobs. As a result, the citizens of

Wisconsin have gained numerous economic, community and environmental benefits.

Background

Cleaning up and redeveloping brownfields is often heralded as sensible public policy because of the multiple public benefits:

- Economic development benefits include leveraged investment, revitalized neighborhoods, blight elimination and employment retention and expansion, including Wisconsin communities that have been hit the hardest by manufacturing plant closures.
- Fiscal impacts include the generation of new sources of local and state revenue derived from previously unproductive land, an expanded tax base, and savings due to the reuse of existing infrastructure to accommodate growth.
- Environmental benefits from brownfields redevelopment — when compared to greenfields development, or the development of untouched land — includes saving land, reducing air emissions and greenhouse gases, improving water quality through reduced runoff and generally accommodating growth in an environmentally responsible fashion, eliminating the negative impacts associated with sprawl.

La Crosse

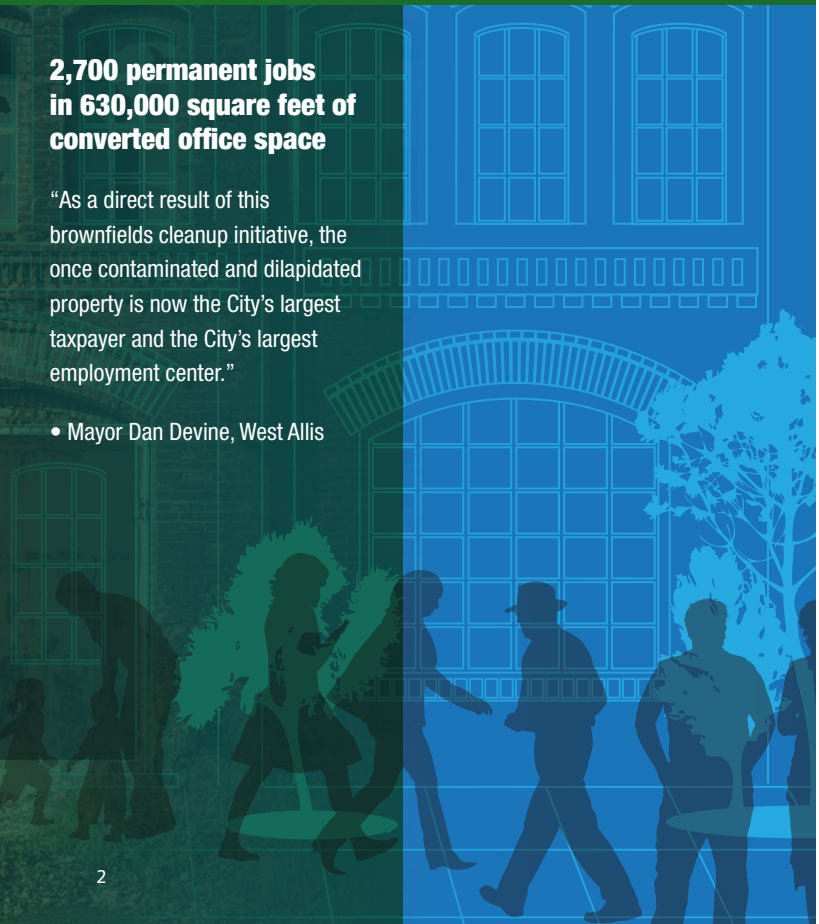
Brownfields grant makes key difference in the 500-job CenturyLink regional headquarters project

A 2015 article on the CenturyLink headquarters project indicated that "the Louisiana-based Company was just days from moving its La Crosse operation to Michigan before the state came through with a $1 million grant to clean the soil."

"That was really, really important," said Bob Brown, CenturyLink's vice president for operations. "We really need it along the Mississippi (River). There are a lot of sites no corporation like ours would take on."

CASE STUDY

Allis Chalmers plant, now Summit Place, West Allis



2,700 permanent jobs in 630,000 square feet of converted office space

"As a direct result of this brownfields cleanup initiative, the once contaminated and dilapidated property is now the City's largest taxpayer and the City's largest employment center."

• Mayor Dan Devine, West Allis

Many brownfields sites are regarded in the real estate industry as among the toughest to develop, and brownfields generally require financial incentives in order to attract private capital. Brownfields developers face several barriers:

- Higher upfront costs in site testing and remediation
- A longer pre-development phase to address regulatory issues and greater uncertainty due to liability issues, especially toxic tort and other third-party liability (issues not covered by the state voluntary cleanup programs)
- Market limitations due to neighborhood conditions

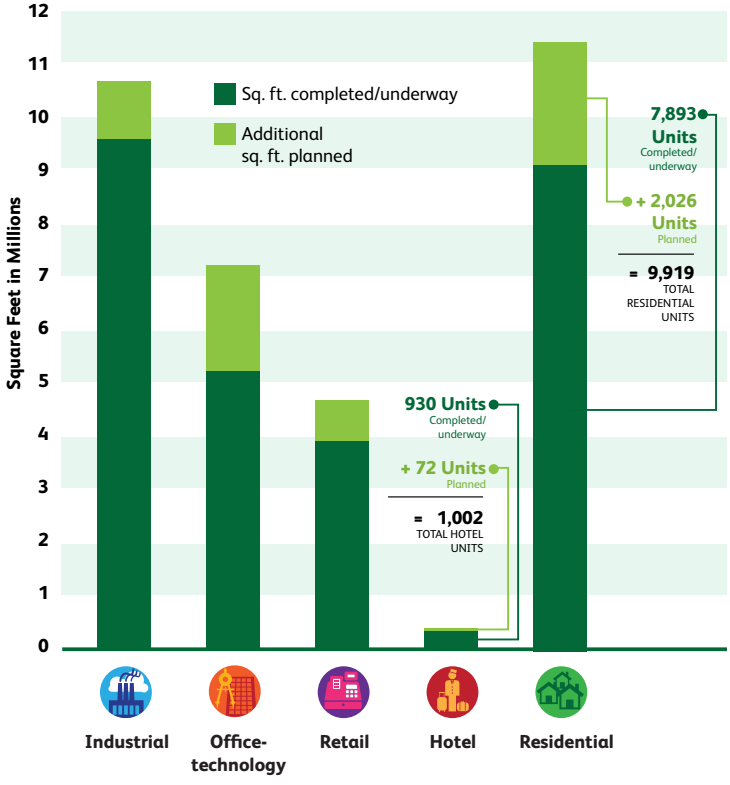
Wisconsin, like many states that prioritize investing in brownfields redevelopment, has developed several financial incentives designed to overcome these barriers and maximize the economic, community and environmental benefits. This analysis quantifies the impacts of state and local government brownfields investments, so that budget-watchers and policy makers can better judge the efficacy of these programs in promoting the state's economic, public and environmental health.

Cleaning Up the Land and Putting It Back to Productive Use

"Job 1" for a brownfields program is to clean up contaminated land and promote its productive reuse, thereby accommodating growth within existing communities through in-fill development. Since 1998:

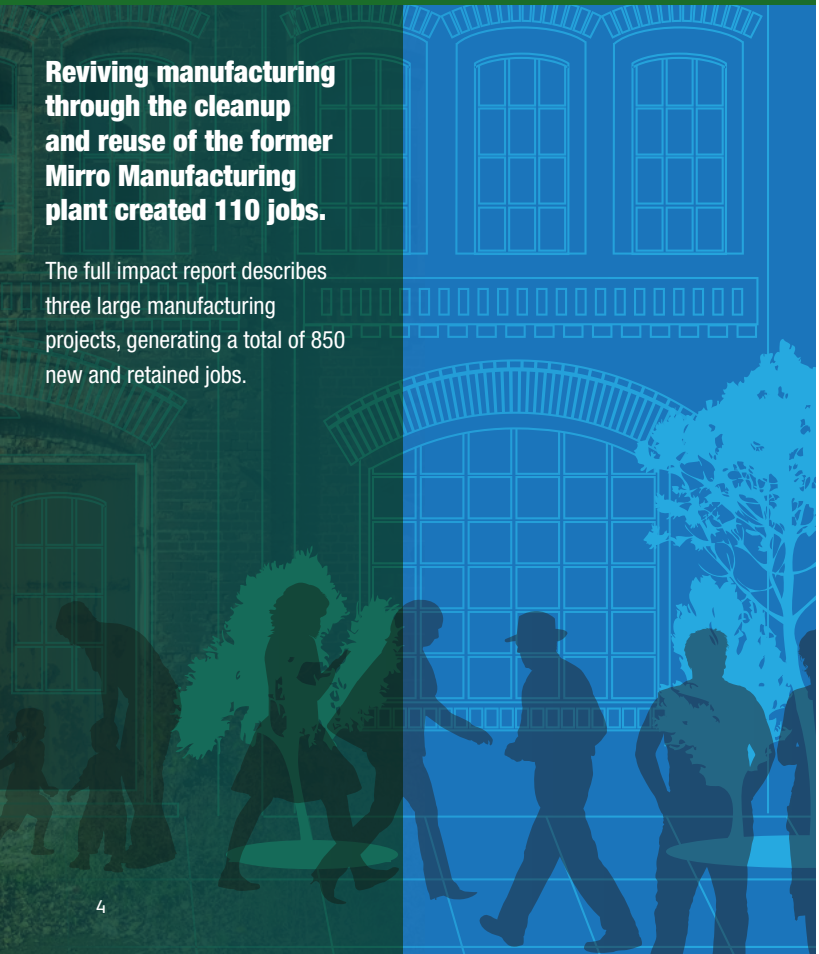
- State of Wisconsin brownfields funding programs assisted 703 sites, resulting in 4,713 acres of contaminated land that was assessed, cleaned up or both. Researchers were able to determine the redevelopment status of 563 sites.
- Redevelopment was complete or underway at 356, or 63 percent, of the 563 sites, resulting in 3,393 redeveloped acres. This is an impressive success rate, given the inherent risks of brownfields projects and the fact that two significant real estate recessions undoubtedly left many plans on the drawing board. Even more impressive, the state funding was provided to a category of brownfields sites where no environmental or economic benefits likely would have been achieved without this infusion of public investment, because the private sector was not willing to invest given the economics of the project.
- Redevelopment has produced 28.2 million square feet of new or renovated space (Table 1). Planned projects represent another 6.4 million square feet. The top three uses, in terms of square footage, are industrial, residential and office/technology.

Table 1. Reuse of assisted brownfields sites



CASE STUDY

Skana Aluminum, Manitowoc



Reviving manufacturing through the cleanup and reuse of the former Mirro Manufacturing plant created 110 jobs.

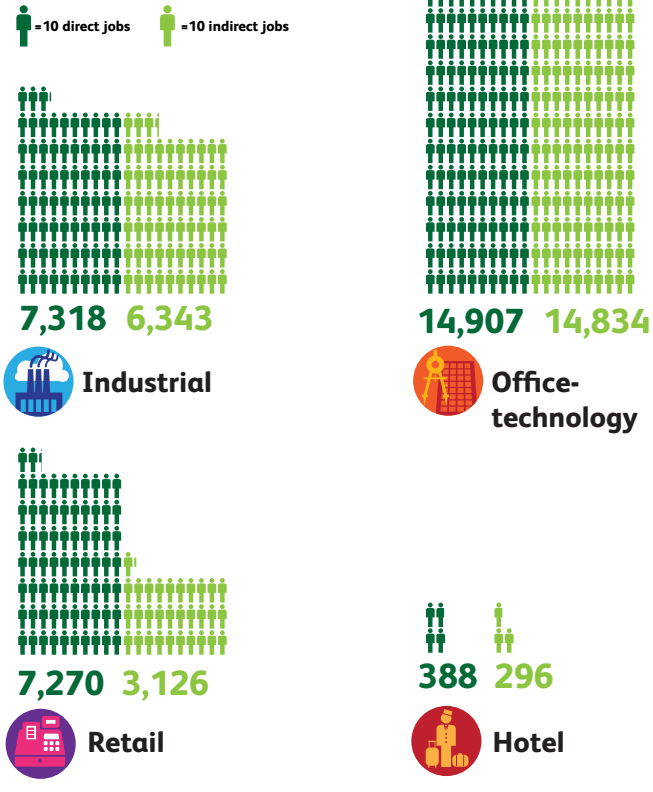
The full impact report describes three large manufacturing projects, generating a total of 850 new and retained jobs.

New Investment and Economic Development

Wisconsin's brownfields investments have produced redevelopment investments and jobs:

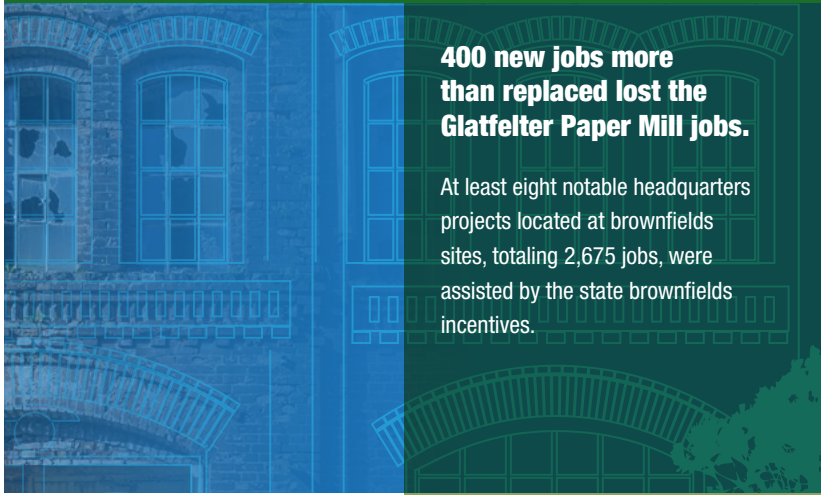
- One-time impacts – State investments, coupled with local government investments and federal brownfields assistance, have generated $3.3 billion in direct total investment/construction (or $6 billion in direct and indirect investment) in completed and underway brownfields projects.
- Ongoing economic output – Economic activity associated with the businesses now occupying completed projects amounts to $4.4 billion direct (or $7.6 billion direct and indirect) in statewide economic output.
- Permanent jobs – As indicated in Table 2, a total of 29,883 direct new and retained permanent jobs (or 54,483 direct and indirect jobs) were generated in assisted complete or underway brownfields projects. Projects representing an additional 9,107 jobs are planned; thus the total pipeline is 38,990 direct permanent jobs.

Table 2. Jobs in assisted brownfields projects (completed and underway)



CASE STUDY

Plexis Headquarters, Neenah



400 new jobs more than replaced lost the Glatfelter Paper Mill jobs.

At least eight notable headquarters projects located at brownfields sites, totaling 2,675 jobs, were assisted by the state brownfields incentives.

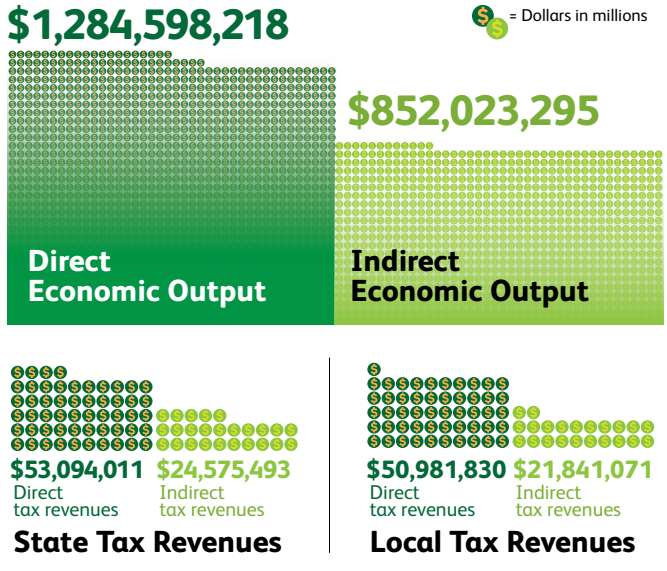
Because brownfields sites represent a loss of economic activity due to plant closure or other abandonment of commercial and industrial properties, many policy-makers prefer that the redevelopment of brownfields produce new jobs and business investment in sectors that are regarded as economic base contributors. Economic base contributors sell goods and services outside of the region; as such, they bring dollars into the region. Economists regard most industrial uses (especially manufacturing) and many office and technology uses (especially information services, research and financial services) as the strongest economic base contributors. This analysis thus focuses on the industrial/manufacturing and office/technology sectors.

Industrial and Manufacturing

Relative to the other land-use sectors, industrial reuse created the largest amount of new or rehabilitated space – 9.6 million square feet. This is surprising, given the transition of many older industrial areas to office and residential uses. The 7,300 industrial sector jobs (6,200 new and 1,100 retained) are economic generators, as indicated by the parallel finding that industrial uses also produced 6,300 indirect jobs, only a little less than the direct jobs. Another advantage: industrial jobs are almost always living wage jobs. Additionally, the temporary construction impacts due to existing and planned industrial projects tallied $921 million, leading to 8,200 direct temporary jobs.

The total statewide economic impact of the ongoing operations of these industrial businesses is $1.3 billion in direct economic output, or $2.1 billion in direct and indirect output (see Table 3).

Table 3. Direct and indirect impacts of completed industrial projects



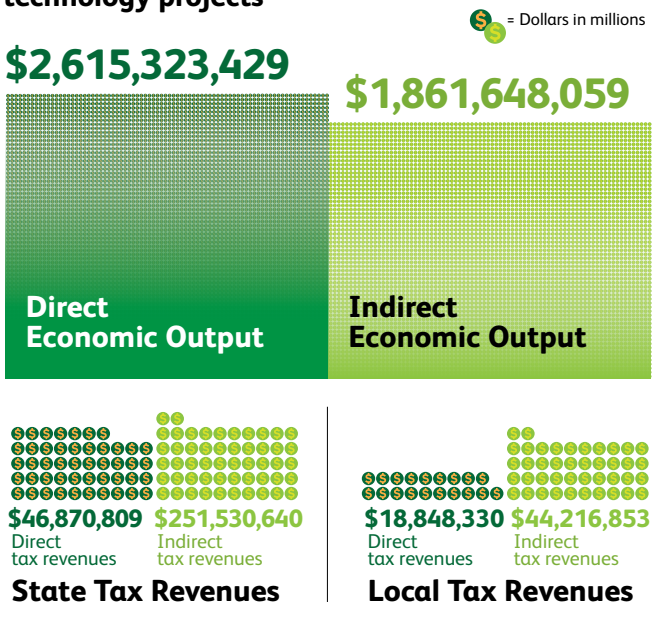
Office and Technology

The office and technology sectors include many businesses that sell their services outside the region and are considered economic base contributors. While the industrial sector produced the most square footage in brownfields projects, the office/technology sector produced the greatest number of jobs, due to the higher job density of office projects. As Table 4 indicates, 14,907 jobs have been generated in completed and underway office/technology projects, and another 6,700 are in the pipeline. Completed and planned development projects exceed $800 million in new investment.

The total statewide economic impact of the ongoing operations of these office and technology businesses is $2.6 billion in direct economic output and $4.5 billion in direct and indirect economic output.

The secondary benefits of these office/technology businesses is evident in that an additional 14,834 indirect jobs result from the multiplier effect, leading to a total of 29,741 jobs generated by the office/technology sector.

Table 4. Direct and indirect completed office/technology projects



CASE STUDY

Beloit Ironworks campus

A former foundry now providing 1,500 mixed office, industrial and technology jobs in a distressed area.

Universal Acoustic & Emission Technologies recently trebled their production, research and office space in the facility to 122,000 square feet.

Distressed Areas

Brownfields sites are usually located in older communities that have been heavily impacted by industrial decline – communities that need an infusion of new economic activity. The key finding is that economically disadvantaged areas received more assistance than more prosperous areas:

- 66 percent of assisted sites were located in census tracts with median household income lower than the state as a whole.
- 53 percent of the sites assisted were located in census tracts where the unemployment rate exceeded the statewide unemployment rate.
- 12,400 permanent jobs were generated in census tracts that ranked below 80 percent of the state median. This represented 50 percent of all permanent jobs that were in GIS-coded census tracts.

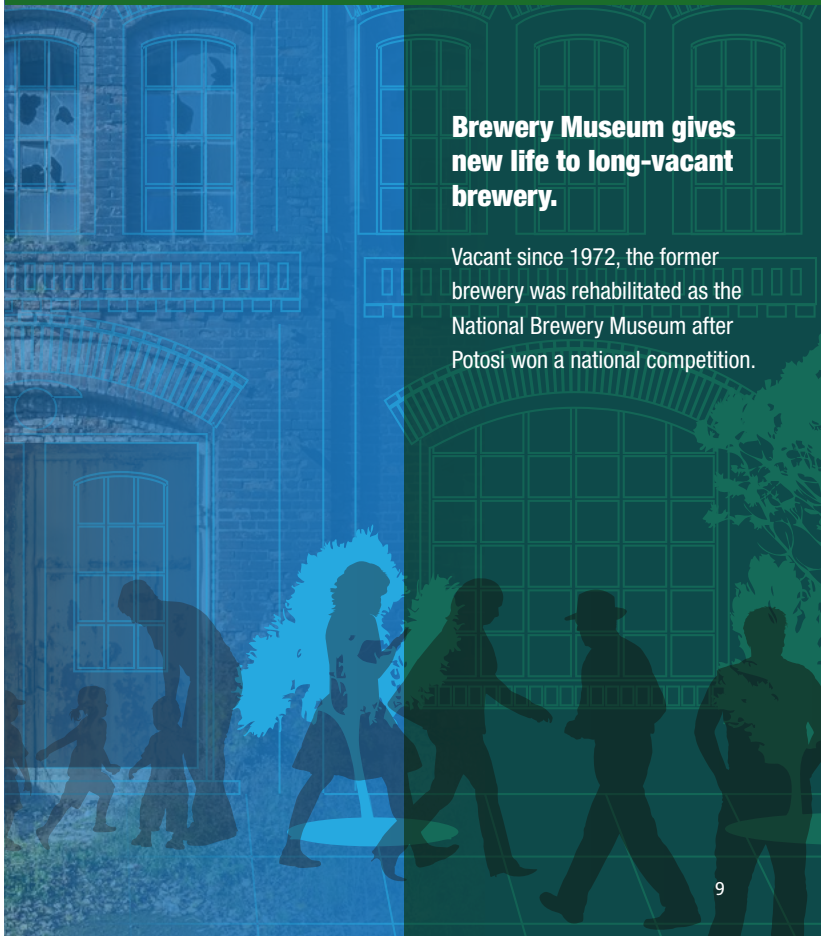
Rural and Small Town Development

Abandoned and contaminated sites often heavily impact rural and smaller communities — the visual blight serves to underscore and heighten the loss of economic activity. Analysts produced several cross-tabulations to test the degree to which the state programs are assisting smaller communities:

- The state brownfields programs assisted 237 sites in communities of fewer than 15,000, or 42 percent of all sites GIS-coded for place. When the population threshold was lowered to 10,000, the result was 192 sites assisted (33 percent of all sites).
- 6,640 jobs were created in completed brownfields projects in communities with fewer than 15,000 inhabitants. This was 23 percent of all jobs in redevelopment sites GIS-coded for place. When the criterion was lowered to fewer than 10,000 inhabitants, the result was 1,560 jobs generated (six percent of all jobs generated).

CASE STUDY

National Brewery Museum, Potosi



Brewery Museum gives new life to long-vacant brewery.

Vacant since 1972, the former brewery was rehabilitated as the National Brewery Museum after Potosi won a national competition.

Riverside Park, Oshkosh

Former manufactured gas plant transformed as Riverside Park and Leach Amphitheater

The Downtown Oshkosh website calls attention to Riverside Park as "one of the keys to continued growth for Downtown Oshkosh remaining a destination."

Fiscal Efficiency and Taxpayer Return on Investment

The State of Wisconsin's brownfields investments total $121.4 million over a 17-year period. Total federal, state and local brownfields-specific investments amount to $162 million. The following findings reflect on the fiscal cost-effectiveness of these investments:

- $1.00 of state funds leverages $27.25 in total funds, and it takes $3,000 in state brownfields funding to leverage one job. These leverage ratios compare favorably to several national benchmarks.
- Over half of the state revenue outlay is recouped in state tax revenues from construction activities alone.
- Counting only the direct state revenues generated by the business occupants of newly created space, the state has cumulatively recouped $1.77 billion, a more than 14-fold return on investment.
- Local governments gain $88.5 million annually in tax revenue from redeveloped brownfields, not including property taxes derived from the new/renovated buildings. On average, post-redevelopment assessed values exceed pre-development values in a ratio of 3.5 to 1.

Environment and Smart Growth

All brownfields projects are located on infill sites that have several advantages as an alternative to sprawl, including reuse of existing infrastructure and locating jobs closer to the workforce and the unemployed. The consulting team quantified several specific smart growth benefits:

- 7,900 dwelling units were completed or underway on assisted brownfields sites, all representing infill redevelopment that otherwise may have been built as greenfield/sprawl.
- Because of their density and location within existing communities — usually close to downtown and accessible by transit — Wisconsin brownfields are reducing vehicle miles traveled and greenhouse gases by 16 to 28 percent, relative to alternative growth patterns.
- Wisconsin brownfields are helping preserve farms and pristine land, with an estimated 12,000 acres kept from development, measured cumulatively over the 16-year life of the state incentives.

CASE STUDY

La Crosse

11 redeveloped brownfields sites yield $282 million in increased property value

The DNR recently compiled data about state-assisted cleanup and redevelopment in La Crosse:

- La Crosse has benefited from $1.6 million in state assistance for site assessment and cleanup
- DNR has overseen 322 completed cleanups in the city
- 11 redeveloped brownfields sites have yielded $282 million in increased assessable base for the locality

Public Purpose Uses: Affordable Housing, Parks, Health Centers and Public Facilities

While all of the projects analyzed serve public objectives, the following projects are direct public purpose reuse:

- Of the 7,900 dwelling units completed or underway on assisted brownfields sites, 900, or 11.4 percent, were identified as affordable.
- 43 sites, representing 340 acres of land, were recorded as developing parks and open space or preserving naturalized areas. The average size was 7.9 acres.
- Two sites are being developed for community health facilities, totaling 90,000 square feet.
- 22 brownfields sites have been redeveloped for public facilities, totaling 636,000 square feet.

Choices for the Future

Wisconsin has been a national leader in brownfields redevelopment – the Wisconsin approach has been cited as a model in numerous academic journals and policy reports.

Wisconsin policymakers should consider not only the upside benefits of continuing Wisconsin's leadership position, but also the cost of retreating from brownfields investments.

Benefits of continued leadership on brownfields	The quantitative findings from past brownfields investments	Consequences if brownfields investments cease
Economic development in existing communities	$3.3 billion investments/construction activity in existing communities (one-time impacts) · $6.0 billion in direct and indirect investment $4.4 billion in on-going direct economic output due to the operations of businesses in redeveloped sites · $7.6 billion in direct and indirect economic output	Blighted neighborhoods Sprawl Disinvestment in existing communities
Increased employment and jobs in existing communities	29,000 new/retained direct permanent jobs in completed/underway projects · 53,800 in direct and indirect permanent jobs 27,900 direct temporary construction jobs · 47,000 direct and indirect temporary jobs related to construction	Jobs follow sprawl patterns Jobs lost to other states
Jobs and economic activity in distressed areas	66 percent of assisted sites located in census tracts with low median household income 12,400 jobs generated in CT's below 80 percent of the state median household income	Growth siphoned to outer suburbs Continued economic distress for older communities
Improved fiscal health of localities Increased property values	Post-redevelopment assessed values exceed pre-development values by 3.5 to 1 The average cleaned up/redeveloped brownfields site adds $3.4 million to a locality's assessable base Spin-off impacts on nearby properties are estimated to add another $3.5 million to the assessable base	Lower property values Unpaid taxes Increased burden to taxpayers due to tax foreclosure on tax delinquent properties
State fiscal benefits	The state is recouping tax revenues, annually, that now represent $119 million ($208 million in direct and indirect revenues) State's brownfields investments recouped 14-fold due to direct project impacts	Increased cost of infrastructure for sprawl development Enforcement and policing costs
Reduced greenhouse gas emissions	Greenhouse gases reduced by 16 to 28 percent relative to alternative growth patterns	Increased greenhouse gas emissions
Preservation of farms and pristine land	Preserve 12,000 acres from greenfields development	Development of farms and pristine land
Management of environmental risk	4,713 acres of contaminated land assessed or cleaned up	Continued health risks Contaminated soil and groundwater
Public open space creation	43 sites developed as parks and open space, totaling 340 acres	Lost opportunity to improve open space
Neighborhood revitalization Development in the surrounding area	7,900 dwelling units located in existing communities 900 units affordable housing	Blight Illegal dumping Vandalism

About the Fiscal and Economic Research Center

The University of Wisconsin-Whitewater Fiscal and Economic Research Center provides research services for area businesses, not-for-profits organizations and government entities, including:

- Economic analysis
- Land-use planning
- Geographic Information Systems (GIS) analysis
- Market research, marketing strategy and planning
- Statistical analysis
- Simulation analysis
- Ecological and biological analysis
- Government and public policy analysis
- Entrepreneurship
- Economic forecasting and business development

This study was commissioned by the Wisconsin Brownfields Study Group.

About the Authors

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For More Information • A full version of the Economic and Fiscal Impact of Wisconsin's Brownfields Investments, complete with methodology, documentation, footnotes and appendices, is available at www.uww.edu/ferc/completed.

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