

The Economic Impact of NJDEP's HDSRF Grant Program



INTRODUCTION

Brownfields are described by New Jersey state law as “any former or current commercial or industrial site that is currently vacant or underutilized and on which there has been, or there is suspected to have been, a discharge of a contaminant” (N.J.S.A. 58:10B-23.d).

From 2006 to 2018, the NJDEP (New Jersey Department of Environmental Protection) HDSRF (Hazardous Discharge and Site Remediation Fund) program has awarded over \$208 million to public entities to assist brownfield investigation, cleanup, and redevelopment. In general, the principal finding is that New Jersey’s brownfields programs are efficiently cleaning up land and re-establishing productive use.



Local governments gain \$126.95 million in annual tax revenue from businesses and housing occupying redeveloped space

The Fiscal and Economic Research Center (FERC) discovered the following economic impact findings:

- \$1.75 billion of direct and indirect statewide economic output and 8,600 total jobs created from businesses now occupying redeveloped brownfields sites.
- 2,233 housing units occupying redeveloped sites resulting in \$89.5 million ongoing economic output and 555 jobs created.
- \$133 million and 610 jobs in one-time economic impact created from 553 acres of parks and open space occupying redeveloping sites.

BACKGROUND

The impact of the HDSRF grant program improves the quality of life for communities surrounding redevelopment sites and has substantial effects on the environment, creating a healthier community for the people of New Jersey.

The redevelopment of brownfields sites results in many public benefits:

- Economic development impacts include: creation of affordable housing, blight elimination, revitalized neighborhoods, and employment expansion & retention.
- Fiscal development impacts include: added revenue in the community, lower requirements for future investors, local and state tax revenue, and expanded tax base.
- Environmental development impacts include: improved stormwater management and flood mitigation, improved local water quality, improved air quality, reduction of greenhouse gas emissions, and creation of open space.

Brownfields are often extremely difficult to redevelop. Barriers to redevelopment include:

- Higher upfront costs
- Difficulty in securing financing
- Limitations of surrounding neighborhoods
- A longer pre-development phase due to liability and regulatory concerns

NJDEP's Office of Environmental Justice (OEJ) aims to improve the quality of life in New Jersey's most vulnerable communities by educating and empowering communities who are often outside of government decision-making processes and guiding DEP's programs and other state departments and agencies in implementing environmental justice.

The Hazardous Discharge Site Remediation Fund (HDSRF) offers grants and loans to public, private, and non-profit entities to fund the assessment, investigation, and remediation of brownfield sites.

Since 1993, the HDSRF has awarded \$412,288,335 (data as of January 31, 2022) to public, private, and non-profit entities for brownfield preliminary assessment (PA), site investigation (SI), remedial investigation (RI), and remedial action (RA).

ENVIRONMENTAL AND SMART GROWTH

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

- **2,233 housing units** were completed or underway on redeveloped brownfields sites, representing development that may have otherwise been built as greenfield/sprawl.



- **553 acres of parks and green space** were completed or underway on redeveloped brownfields sites, preserving land and providing health benefits to the community.



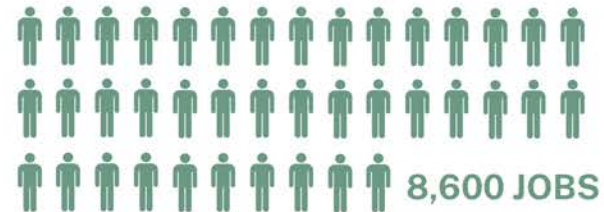
AFFORDABLE HOUSING, PARKS, AND PUBLIC FACILITIES

While all of the projects analyzed serve public objectives, the following findings serve as direct public reuse:

- Of the 2,233 housing units identified, **1,040 serve as affordable housing.**



- Businesses built on developed brownfields sites created and support **8,600 permanent jobs.**



CASE STUDIES

HADDON TOWNE CENTER

After a diaper wash facility in downtown Haddon closed in 1990, it remained abandoned for 17 years before demolition. \$3.3 million from the NJDEP Hazardous Discharge Site Remediation Fund (HDSRF) was awarded to the Township of Haddon in total over several years for site investigation and cleanup. In 2017, the site became home to the new Haddon Towne Center, a mixed-use apartment complex and retail community in a transit-accessible, premier location.



Of the \$3.3 million awarded to the site, \$132,000 was allocated to cover preliminary assessments, site investigations, and remedial investigations, and \$3.17 million was allocated toward remedial action. During the period that the site received funding, the assessed value of the tax block that contains the Haddon Towne Center site increased over \$50 million.

SALVATION ARMY KROC COMMUNITY CENTER

The 85-acre former Harrison Avenue Landfill, located in Camden's Cramer Hill neighborhood, operated as a municipal landfill for nearly two decades before it was abandoned in the early 1970s. 24 acres of the site were remediated and now houses a 120,000-square-foot community center and campus with miles long frontage on two rivers. The Salvation Army Kroc Community Center opened in 2014 and provides critical services to residents, including food, medical care, and social and physical enrichment.



In 2006, the NJDEP and the NJ Economic Development Authority (NJEDA) awarded a \$2.9 million grant from the HDSRF to the Camden Redevelopment Agency (CRA) to conduct a remedial investigation. Additional grants awarded from 2008 through 2014 brought the State's commitment for investigation and cleanup funding to a total of nearly \$26 million.

CASE STUDIES

CARTERET WATERFRONT MARINA

Until 2003, this site on the Carteret waterfront was an abandoned, dilapidated mahogany treatment basin. It is now home to the new Carteret Waterfront Marina, which officially opened in the summer of 2019. Funding from the NJDEP's HDSRF provided crucial assistance for a variety of projects. The Marina restores water access and recreational opportunities for Carteret and Central New Jersey residents. It also revitalizes the area as a center for recreation, transit, and mixed-use residences.

Funding for the site began in June 2009, and additional awards were given in 2011 and 2016. Altogether, the site was awarded \$15.3 million.



HAMILTON STAGE

Upon abandonment, this former site of a Bell Telephone service center and commercial drycleaner became an eye sore that laid vacant for decades. Hamilton Stage opened in the fall of 2012 and works in concert with the historic Union County Performing Arts Center to host professional and community performances. The facility hosts over 150 performances each year, including concerts, plays, ballets, musical theater, dance, readings, art galleries, benefits, corporate conferences, and classes, featuring a vast blend of local and international talent.



The site received \$1.5 million from NJDEP's Hazardous Discharge Site Remediation Fund (HDSRF) to complete the active on-site remediation of contaminants in the soil and groundwater.

CASE STUDIES

BERRY LANE PARK

In the Communipaw-Lafayette Section of Jersey City, 17 acres of contaminated land were cleaned up and transformed into a community park. This relatively new open space also includes 600 new trees and a rain garden, providing green infrastructure to the site. The NJDEP HDSRF was instrumental in moving this project along, as it provided nearly \$1.7 million for site remediation. Now, residents can come together and enjoy multiple benefits from this local resource.

The NJDEP awarded grants through HDSRF totaling approximately \$680,000 for investigation and \$1.1 million for remedial action.



DREAM PARK

This site along Route 130 in Logan Township had historically been used to store dredge material from the Delaware River. In 2007, the NJDEP Office of Brownfield and Community Revitalization (OBCR) helped move the project along by providing \$545,200 for remediation costs through the HDSRF Parks and Recreation Grant. Open to the public since 2008, the Delaware River Equestrian Agriculture Marina (DREAM) Park currently features a state-of-the-art equestrian facility and recreation area.

DREAM Park officially opened its doors in the summer of 2008. The Equine Park portion of the property now boasts impressive facilities and amenities, including a large indoor riding arena and four outdoor arenas, two of which are lit.



CASE STUDIES

NAT TURNER PARK

In a neighborhood with over 19,000 people, 7,000 of them being children, Nat Turner's 400-meter regulation track, AstroTurf football field, playground, picnic area, swimming pool, and 200-person concrete amphitheater offer options for any visitors. Nat Turner Park saw completion in July 2009, and its impact on the social benefit and wellbeing of the surrounding community is functionally incalculable but nonetheless important.



Funding for the site began in April 2007, and an additional award was given in 2008. Altogether, the site was awarded \$2.10 million.

OVERBURDENED COMMUNITIES

Brownfields sites are often found in overburdened 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, as indicated by:

- 63 percent of assisted sites ranked as lower in median household income than the State as a whole.
- 43 percent of site/census tracts have a higher poverty rate than the State as a whole.
- 76 percent of sites/census tracts had a higher non-white population percentage than the State as a whole.
- 52 percent of sites/census tracts had a higher percentage of non-English speaking homes than the State as a whole.

NEW INVESTMENT AND ECONOMIC DEVELOPMENT

ONE-TIME IMPACT

\$652 million in economic output created as a result of housing and parks constructed on redeveloped brownfields sites.

Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ **\$652M**

TAX IMPACT

\$120 million in ongoing tax revenue created by businesses occupying redeveloped space.

Ⓢ Ⓢ Ⓢ **\$120M**

EMPLOYMENT IMPACT

8,600 full-time equivalent jobs created due to housing, parks, and businesses occupying redeveloped space.

👤 👤 👤 👤 👤 👤 👤 👤 👤 👤 👤 👤 👤 👤 **8.6K JOBS**

ONGOING IMPACT

\$89.5 million annually as a result of housing and **\$1.75 billion** annually as a result of businesses occupying redeveloped brownfields sites.

Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ
Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ Ⓢ **\$2.64B**



USE OF REDEVELOPED PARCELS

CLEANING UP AND PUTTING LAND BACK TO USE

The Fiscal and Economic Research Center (FERC) discovered the following base findings:








This analysis of the State's brownfields funding programs reviewed 330 HDSRF grants. Some of the grants were awarded to the same sites, resulting in 229 total sites. Using satellite imagery and property records, the FERC was able to determine that 135 of these 229 sites had at least one associated property remediated as of the year 2020. The tax records and available satellite imagery of the remaining 106 sites did not show sufficient change to indicate that any associated properties were remediated.

Among the 135 sites which were confirmed to have experienced some level of remediation, a total of 1125 properties (as of 2020) were confirmed to have been remediated.

Among the 135 sites which were confirmed to have experienced some level of remediation, a total of 1125 properties (as of 2020) were confirmed to have been remediated.



USE OF REDEVELOPED PARCELS

PROPERTY TYPE/USE	NUMBER OF PARCELS FOUND
PARKS/RECREATION & MARINA	 18
GOVERNMENT/PUBLIC USE & EDUCATION	 36
PARKING & MISC. TAXABLE USE	 66
MISC. TAX EXEMPT USE	 97
INDUSTRIAL/MANUFACTURING & COMMERCIAL USE	 125
HOUSING & RESIDENTIAL USE	 783
TOTAL	 1125

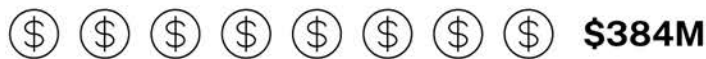
IMPACT OF HOUSING CONSTRUCTED ON FORMER BROWNFIELDS SITES

ONE-TIME IMPACT OF BROWNFIELDS HOUSING CONSTRUCTION

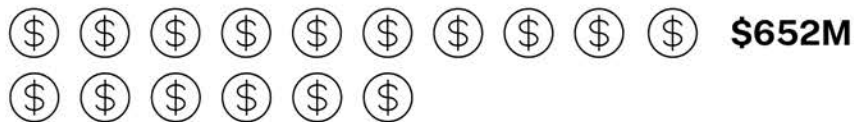
EMPLOYMENT



LABOR INCOME



OUTPUT



The analysis in the study includes the short term, one-time economic impact of the initial construction of housing as well as the long term annual economic impact of new and expanded housing in New Jersey. The housing built from the brownfields will result in economic impact from its construction and subsequent operation.

ONGOING IMPACT OF BROWNFIELDS HOUSING CONSTRUCTION

EMPLOYMENT



LABOR INCOME



OUTPUT



BUSINESSES CONSTRUCTED ON FORMER BROWNFIELDS SITES

This direct economic contribution of business spending also creates indirect and induced economic benefits, as money spent on wages to their employees and those employees spend their wages on other businesses that spend money on additional goods and services, who in turn spend their income in the regional economy.

ONGOING IMPACT OF BROWNFIELDS BUSINESS CONSTRUCTION

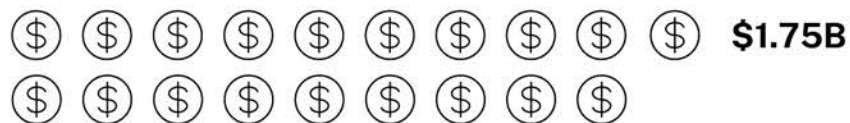
EMPLOYMENT



LABOR INCOME



OUTPUT



ONGOING TAX REVENUE IMPACT OF BROWNFIELDS BUSINESS CONSTRUCTION

TOTAL



All of these expenditures are magnified throughout the regional economy as the business expenditures and spending of employees are further cycled through the regional economy, multiplying the economic impact to the region. IMPLAN economic output multipliers are applied to the expenditures in each of the categories identified above in order to calculate total economic impact (including direct, indirect, and induced contributions to the regional economy).

ECONOMIC IMPACT OF BROWNFIELDS PARKS CONSTRUCTION

There were 10 sites broken down into 106 parcels that were recorded as developing parks and open space. Redevelopment of these parks resulted in the remediation of over 553 acres of green and open space.

EMPLOYMENT (NUMBER OF JOBS CREATED)

DIRECT EFFECT

 335 JOBS

INDIRECT EFFECT

 100 JOBS

INDUCED EFFECT

 175 JOBS

TOTAL EFFECT

 610 JOBS

LABOR INCOME

TOTAL EFFECT

 \$49.7M

OUTPUT

DIRECT EFFECT

 \$72M

INDIRECT EFFECT

 \$28M

INDUCED EFFECT

 \$33M

TOTAL EFFECT

 \$133M

FISCAL EFFICIENCY AND TAXPAYER RETURN ON INVESTMENT

Based on the sample of sites where assessed values were available before and after receiving an award, the payback period of HDSRF awards is 12 years after the final disbursement of awarded funds based on the estimated additional property tax revenue generated. Additionally, the increased value results in properties paying less in taxes annually.

The key finding is that New Jersey is recouping **\$120 million in direct and indirect tax revenues annually**. Assuming that the program results were evenly spaced through the 12 years since the inception of the program, the state has recouped a **total of \$1.44 billion in tax revenues**.

TOTAL TAX
REVEUE



New Jersey has allocated resources for public entities to pursue brownfield remediation and redevelopment. The positive outcomes of providing more housing, attracting economic investments/opportunities, and providing open space in our overburdened communities need to be countered against the cost of inaction and the underutilization of the real estate (as represented by property values).

Brownfield sites do not generate economic return and are a blight on the community. Even if economic development does not take place very soon after HDSRF funds are spent, the community, environmental, and health benefits of remediation of brownfield sites are worth the costs. Since contaminated sites can be remediated with HDSRF, those sites are no longer a blight on the community, but are instead a clean property with high redevelopment potential.

ABOUT THE FERC

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

Data Engineering and Data Collection:

Cole Kinson, Bradley Ripp, Clayton Gallmann, Maxwell Breit, Jonathan Pulley, Kevin Peralta

Fiscal and Economic Research Center

University of Wisconsin-Whitewater
Hyland Hall 809
W. Starin Road
Whitewater, WI 53190

ABOUT THE AUTHORS

Russ Kashian is a Director of the FERC and a Professor of Economics at the University of Wisconsin-Whitewater. He also serves as a specialist for the University of Wisconsin-Extension and is co-founder and director of the Fiscal and Economic Research Center at UW-Whitewater.

Matt Winden is Assistant Director of the FERC and an Assistant Professor of Economics at the University of Wisconsin-Whitewater. He specializes in environmental and natural resource economics issues and focuses on valuation techniques, discrete choice analysis, welfare and policy analysis, survey design and economic impact assessment.

Phone: kashianr@uww.edu

Email: (262) 472-5584

Editing and Graphic Design:

Shannon Murray

Report Development:

Savannah Hernandez



University of Wisconsin
Whitewater
Fiscal and Economic Research Center