

The Benefits of Brownfield

Redevelopment in Minnesota:

Fueling Economic Growth and Revitalizing Communities



ACKNOWLEDGEMENT

The Minnesota Brownfields Board of Directors is grateful to Andrea Long and Lindsey Knutson, interns from the University of Minnesota Humphrey School of Public Affairs, Masters in Urban and Regional Planning Program, for their dedication and hard work in researching and drafting this document.

COVER PHOTOS

Top right: *Crown Center, Minneapolis.* This 5.6-acre site was formerly used for machining and as a foundry. Contamination included volatile and semi-volatile organic compounds, metals (arsenic, barium, chromium, lead, and mercury), diesel range organics, and petroleum in soils, chlorinated solvents in groundwater, and asbestos in the building. The once blighted property has been redeveloped with 128,000 square feet of commercial/industrial space which opened in 2008. The redevelopment produced 150 living wage jobs locating in the City of Minneapolis, with tenants including a medical technology company, architectural, engineering, furniture design, and numerous small and creative businesses. The project was a 2010 NAIOP Award of Excellence Winner. The Metropolitan Council, Hennepin County, and Minnesota Department of Employment & Economic Development provided critical funding for the asbestos abatement and soil remediation needed to redevelop the site, paving the way for over \$8 million in private investment.

Bottom left: *Clyde Iron Works, Duluth.* This 10.2 acre site, which had been used for industrial purposes since the late 1800s and was contaminated with petroleum, heavy metals, coal dust, and polynuclear aromatic hydrocarbons, sat vacant for over twenty years. It is now home to seven businesses and community facilities, including the Clyde Iron Works Restaurant, a Boys' and Girls' Club, and the Duluth Heritage Sports Center, which brings an estimated \$2 million in additional tourism spending to the area. The project leveraged \$25 million in private investment.

March 2011

PARTNERS:

The Ackerberg Group
BlueGreen Alliance Minnesota
City of Duluth
City of Minneapolis
City of Ramsey Economic Development Authority
City of St. Paul
Economic Development Association of Minnesota
Hennepin County
Hillcrest Development LLLP
Metro Cities

Minneapolis Public Housing Authority
Minnesota Brownfields
MN Assn. of Professional County Economic Developers
MN Department of Employment & Economic Development
PAK Properties
Real Estate Recycling
Saint Paul Port Authority
Sherman Associates, Inc.
Urban Land Institute Minnesota

March 18, 2011

RE: Support for Brownfield Investigation, Clean-up, and Redevelopment Funding

Minnesota Brownfields, a 501c3 non-profit organization, is dedicated to supporting and enhancing the reuse and redevelopment of brownfields throughout the state of Minnesota through research, education, and partnerships. Minnesota Brownfields has prepared the 2011 report: *The Benefits of Brownfield Redevelopment in Minnesota: Fueling Economic Growth and Revitalizing Communities* to quantify the economic, environmental and community benefits that come from recycling and redeveloping Minnesota's contaminated land.

The supporting organizations named below work to advance brownfields redevelopment as a critical element of broader objectives to expand jobs, facilitate new business creation, revitalize established communities, and promote smart growth and sustainable redevelopment. These organizations support the main conclusion of the *Benefits of Brownfield Redevelopment in Minnesota* report:

*Minnesota has experienced significant success over the past two decades in investigating, cleaning up, and redeveloping contaminated sites throughout the state. But there is much more to do. **Minnesota must support funding levels to DEED, the Metropolitan Council, and all other dedicated brownfield-focused sources to allow the continuance of the robust production we are known for nationally - production that has provided marketable land and buildings for substantial private sector business and jobs growth.***

We urge prompt action to continue these essential community revitalization tools. If you have questions or want additional information, please contact Martha Faust at Minnesota Brownfields, 651-307-4371 or mfaust@mbrownfields.org. Thank you for your consideration.

Sincerely,

PARTNER ORGANIZATIONS NAMED ABOVE

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INTRODUCTION

The volatility that shook Minnesota’s economy in recent years demands solutions that will create a more stable and sustainable future for our state. As Minnesota’s citizens, businesses, and government work to regain economic footing, create more jobs, and revitalize Minnesota’s communities, now is the time to leverage such solutions. This paper highlights one of the most dynamic tools we can use to accomplish those goals – the redevelopment of idled, contaminated commercial and industrial properties. Several thousand of these properties, called “brownfields,” sit stagnant in communities across the state and present a prime opportunity to bolster Minnesota’s economy and its communities while also improving environmental health.

Minnesota pioneered the process for brownfield reuse and redevelopment by authoring the nation’s first land recycling enabling legislation in 1992. Since then we have successfully redeveloped some of our most visible brownfield sites. Yet vast opportunity remains. An estimated 4,000 brownfield cleanup projects have been completed in Minnesota. More than 10,000 additional sites are known to be contaminated; while tens of thousands of sites beyond that have not yet been identified. When contamination is identified or suspected, these sites drag down area property values, can result in blight and increased crime, and create holes in the fabric of our communities.

Because of the economic downturn, it is important now more than ever that we seize the opportunity posed by these impaired properties. Brownfield redevelopment is the engine for private sector growth and job creation we need. A number of successful redevelopment projects in Minnesota have demonstrated the significant and lasting economic, social, and environmental benefits that brownfield redevelopment can bring, including:

- Short-term and long-term job creation
- Local economic growth and investment
- Creation of green jobs
- Renewed use of existing commercial properties
- Revitalization of tax base/tax revenue
- Efficient use of existing infrastructure
- Neighborhood revitalization
- Property value increases
- Reduced threat to public health
- Reduced sprawl
- Air and water quality improvements

Employers ranging from major multinational corporations to small start-up businesses have found redeveloped brownfield sites to be opportune locations for their new facilities. In Minnesota, redeveloped brownfield sites have attracted a wide range of businesses:

- Medtronic Rice Creek Campus, Fridley
- Best Buy Corporate Headquarters, Richfield
- US Bank Corporate Offices, St. Paul
- Ikonics, Atlas Business Park, Duluth
- Cargill Excelsior Crossing Campus, Hopkins
- Coloplast, Minneapolis
- Summit Brewing, St. Paul
- Minnesota BioBusiness Center, Rochester

The State’s economy and its people will benefit from continuing this trend of attracting major employers to redeveloped brownfield sites. Minnesota needs to rejuvenate funding levels to the Department of Employment and Economic Development (DEED), the Metropolitan Council, and the Hennepin and Ramsey County

According to U.S. EPA, “**brownfields**” are “*real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant.*”

Brownfields are typically located on industrial or commercial properties where chemicals were spilled or released during historic operations. The higher cost and longer timeline associated with brownfield redevelopment, as opposed to development of clean, undeveloped property or “greenfields,” have acted as barriers to redevelopment on these sites. Liability concerns have also inhibited their redevelopment.

Environmental Response Fund to allow the continuance of the robust redevelopment work we are known for nationally – work that has provided marketable land and buildings for substantial private sector business and job growth.

This paper examines the existing data on brownfield redevelopment in Minnesota, explains the current statewide opportunity to utilize brownfield redevelopment as a catalyst for economic growth, and provides recommendations for making the most of this opportunity to bolster Minnesota’s economy and communities by encouraging brownfield redevelopment.

MINNESOTA’S BROWNFIELDS

The Minnesota Pollution Control Agency (MPCA) reports that between 1995 and 2010 over 6,000 unique brownfield sites enrolled in state cleanup programs. Over 4,000 of the enrolled sites were cleaned up and redeveloped, representing over 32,000 acres¹ of land that has been revitalized.

Despite this achievement, over 10,000 known contaminated or potentially contaminated sites remain across the state, and tens of thousands more likely exist but have not yet been identified. These sites range from small corner gas stations with leaking underground storage tanks to large abandoned industrial complexes with plumes of contaminated groundwater migrating off-site. Addressing these sites through dedicated public and private investment simultaneously addresses a multitude of current state objectives. Pursuing cleanup and redevelopment of these sites, particularly those that are currently idle or abandoned, will bring economic, social and environmental benefits to the communities in which they locate – an effective package of benefits that maximizes each dollar of public investment and produces direct, measurable results.

Map 1 (page 6) shows known contaminated or potentially contaminated sites in the state of Minnesota, based on MPCA’s databases. These sites are listed as “active” by MPCA, meaning there is an ongoing activity in which the MPCA has an interest (for example, an ongoing investigation at a potentially contaminated site, or a site with active underground storage tanks storing petroleum or hazardous substances) or where a voluntary party is working toward a goal (for example, a No Further Action determination or a tank release closure letter).

Columbia Heights Industrial Park



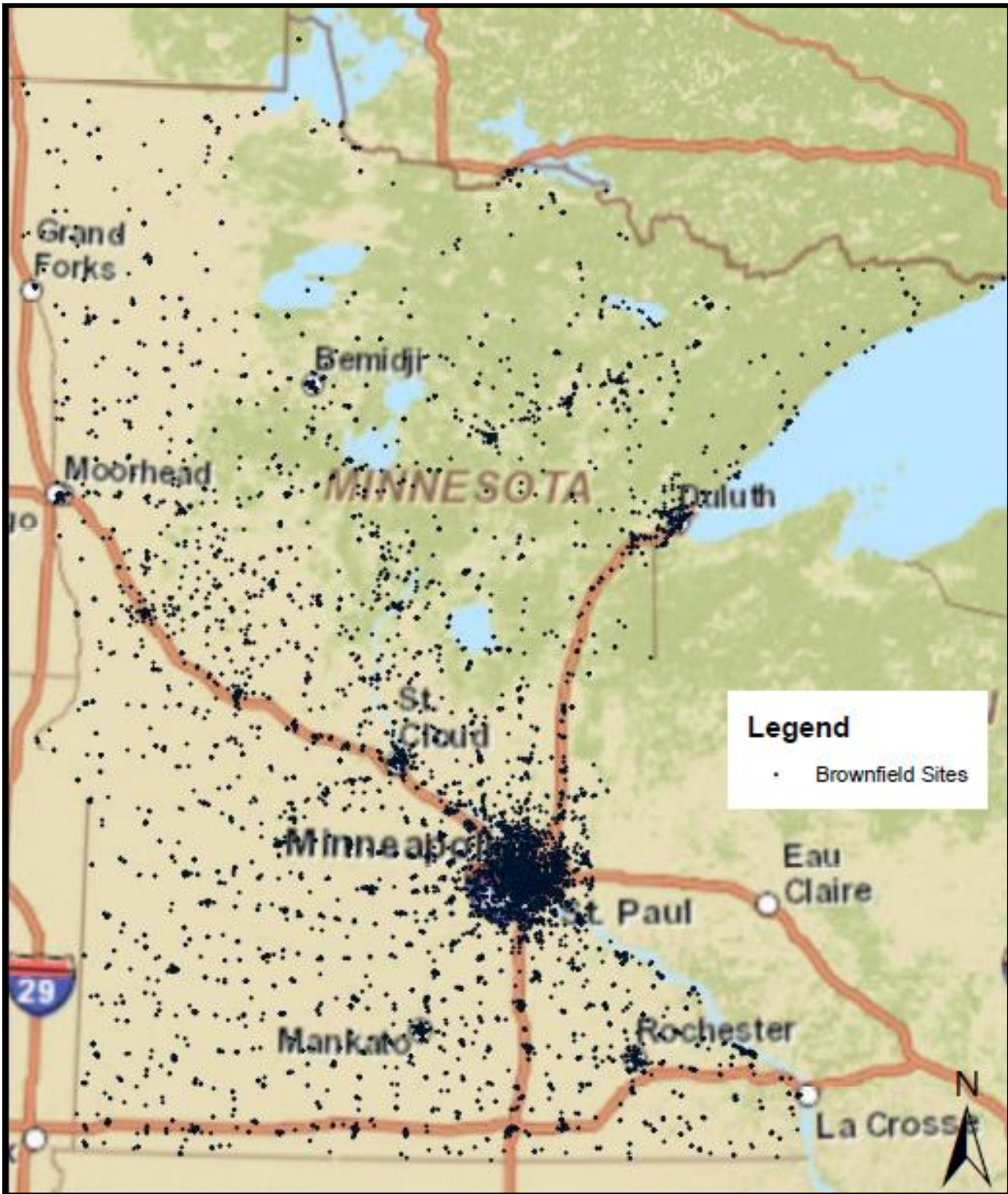
BEFORE



AFTER



Lee’s Wrecking, Blaine



Map 1: Brownfield Sites in Minnesota (Data Sources: MPCA, ESRI)

**Includes Sites categorized as: Leak Site, Petroleum Brownfield, RCRA Cleanup, Superfund Project, Voluntary Investigation & Cleanup (VIC) site, Tank Site, Hazardous Waste TSD, Landfill Open, Landfill Permitted by Rule. Inactive brownfield sites, agricultural chemical release sites and drycleaner sites are not included.*

BENEFITS OF BROWNFIELD REDEVELOPMENT

The benefits of brownfield redevelopment begin during site investigation, cleanup and construction, but last well beyond a new development's ribbon cutting. Brownfield redevelopment benefits also align with the three commonly accepted metrics of sustainability: economy, society and environment.ⁱⁱ Countless local, regional, regulatory, private and nonprofit organizations across the state have incorporated elements of sustainability in their mission and goal statements. The Minnesota Environmental Quality Board demonstrates this through its *Minnesota Sustainable Development Initiative*, which was "based on the common-sense belief that if Minnesota's prosperity is to be sustained over time, what is good for business, the environment and communities must eventually become one and the same. This is the essential challenge of sustainable development."ⁱⁱⁱ



Brownfield redevelopment is inherently sustainable, and carries with it the potential to revitalize Minnesota's economy in an equitable and environmentally sound manner that will benefit Minnesotans for generations to come.

IMMEDIATE BENEFITS

JOB CREATION AND ECONOMIC STIMULUS

Brownfield redevelopment provides a substantial return on public investment while directly addressing Minnesota's need to stimulate economic growth and plan for a more sustainable future. Immediate impacts of brownfield redevelopment projects include job creation and economic investment stimulated by site cleanup, preparation and construction.

According to the U.S. Conference of Mayors 2010 report *Recycling America's Land*, a representative sample of 2,100 brownfield sites redeveloped across the country since 1993 created over 64,700 pre-development jobs equating to an average of 30.8 pre-development jobs created at each site.^{iv}

Beacon Bluff, Saint Paul (former 3M Corporate Campus)

- 61 acre site
- Over 125 construction and preparation jobs created in first 18 months of project
- Goal to replace and exceed the nearly 1,000 local jobs lost when 3M moved out in 2008-2009



Initial job creation and retention benefits extend beyond site borders.

Based on a 2008 Center for American Progress report, it is estimated that for every \$100,000 spent on project site cleanup or construction, 1 direct and .5 indirect jobs are created.^v

Brownfield redevelopment projects bring an immediate infusion of investment to areas that previously lay vacant and were a negative drag on the surrounding area's economic prosperity. Most noticeable is the economic influx that occurs when construction and cleanup workers patronize local businesses for goods and services.

The increased foot traffic and activity brought to an area by this influx of workers also holds the potential to make a community safer and more vibrant. Demolishing or remediating vacant buildings for redevelopment reduces neighborhood blight and the potential for crime.

POLLUTION PREVENTION AND REMEDIATION

“Redeveloping brownfields is good public health practice. It prevents exposure to hazardous substances, eliminates physical hazards and improves the overall quality of life for the surrounding community.”

- Minnesota Department of Health

Removal of a contamination source provides immediate environmental, natural resource and human health benefits to an area. Contaminants present in soil, groundwater, or surface water can pollute drinking water sources and increase risk of disease or illness in humans and wildlife exposed to the contaminants. When brownfield sites are redeveloped under the cleanup standards and requirements established by the state, the potential for migration of or exposure to contamination is diminished, and the redeveloped property becomes safe for use once again.

Downtown Moorhead



- Site former uses: Petroleum filling station, dry cleaner, automotive repair shop, electric motor manufacturing facility, foundry and paint shop
- Removed more than 12,000 cubic yards of contaminated soil
- Redeveloped to 118 residential units
- As of 2008, leveraged \$21 million in private investment for revitalization

LONG-TERM BENEFITS

ECONOMIC BENEFITS

Economic impact is one of the most visible and measurable results of remediating and redeveloping a brownfield site. Long-term economic benefits span job creation and retention, private investment, tax base revitalization and efficient use of existing public infrastructure. Collectively, these benefits contribute to economic competitiveness at the local and regional level.

JOB CREATION AND RETENTION

According to the U.S. Conference of Mayors 2010 report *Recycling America's Land*, a representative sample of 2,100 brownfield sites redeveloped across the country since 1993 created over 97,150 permanent jobs.^{vi} In Minnesota, brownfield projects using DEED funding have supported the creation or retention of over 33,000 jobs since 1995. This figure only accounts for the 276 projects leveraging DEED funding— a few thousand other Minnesota brownfield projects have leveraged other sources of public and/or private funding—therefore the total number of jobs created or retained from brownfield projects in Minnesota is significantly higher.

The jobs created by brownfield redevelopment have demonstrated significant return on each public dollar invested in site cleanup. According to a 2008 study on environmental and economic impact of brownfield redevelopment across the nation, it is estimated that between \$10,000 to \$13,000 of public investment leverages one permanent job.^{vii} The same report further explains that, “[i]solating public costs for brownfields-related site preparation...an average \$5,700 in public costs leverage one job^{viii}.” Compared

to the U.S. Department of Housing and Urban Development (HUD) and the U.S. Small Business Administration (SBA) standard funding requirements of one job for every \$35,000 leveraged, brownfield redevelopment far surpasses job leveraging performance while maximizing public investment. At base value, this translates to three jobs leveraged through brownfield redevelopment work for every one job leveraged through HUD and SBA funded work — a significant way to maximize public funds.

PRIVATE INVESTMENT

According to a 2008 study of brownfield projects of varying scale and locale, public investments in brownfield sites leverage total investments at a ratio of approximately \$1 of public investment to \$8 of private investment.^{ix} In Minnesota, DEED-funded projects leverage an estimated \$20-\$25 in private investment for every \$1 granted.^x

Private investment spurred by redeveloped brownfield sites continues to bring economic success to Minnesota—in the form of businesses big and small. Within the past 10 years, a number of major multi-national corporations have chosen to build on remediated brownfield sites within the Twin Cities Metropolitan area.

Corporations such as Best Buy, Medtronic and U.S. Bank were each attracted to the location efficiency that in-fill brownfield sites offered. These corporations provide a significant source of living-wage jobs to the region and stimulate Minnesota’s economy exponentially. Attracting and maintaining such large employers is pivotal to Minnesota’s economic success.

Recent market trends have also sparked renewed interest in residential development within inner urban areas. In recent years, consumer demand for residential and commercial land uses has started to shift inwards, reversing the demand for suburban and exurban locales in recent decades.^{xi} This trend is revitalizing buyer demand for properties located in inner-urban areas. Further, area developers are noting that their commercial properties located on in-fill brownfield sites have significantly outperformed businesses located on greenfield sites during the recession. Paul Hyde, an owner of Real Estate Recycling, LLC, and a Minnesota Brownfields board member, cites the Saint Louis Park Highway 7 Corporate Center and Brooklyn Center’s Twin Lakes Business Park as two specific examples of redeveloped brownfield sites faring better in the recession.

Hwy 7 Corporate Center, Saint Louis Park



- Developed on former National Lead Superfund Site
- \$12,300,000 tax base Increase
- 240 new jobs created

TAX BASE

Economic impact can be further measured by impact to tax base of an area. One study conducted by the U.S. Conference of Mayors for the 2010 *Recycling America's Land* report looked at 50 cities nationwide, and reported that those cities experienced a collective

Summit Brewing, Saint Paul

- 4.3 acre site
- 58,000 s.f. building
- Over \$120,000 in tax base revitalized
- Maintains approximately 50 employees



increase of \$309 million in tax base from the redevelopment of 654 brownfield sites within their boundaries since 1993.^{xii} That averages out to a \$386,250 annual increase in tax base for each municipality. Further, this report indicates that “...58 cities estimated that, if their brownfields were redeveloped, they could collect anywhere from \$872 million to \$1.3 billion annually,”^{xiii} in additional local tax revenue. This averages to a projected increase of between \$15 and \$22 million annually for each municipality. As most brownfield sites are located in declining urban areas, this amount of revitalized tax base provides economic stimulation to an area beyond what any state or federal subsidy could alone produce. Revitalized brownfields in economically distressed communities can act as catalysts for greater area revitalization.

In Minnesota, DEED-supported projects have contributed to an estimated \$73 million in increased annual tax base to communities in which brownfield sites have been redeveloped since 1995. This revitalization of tax base makes already developed communities stronger and more stable in times of economic volatility. The increased tax base caused by brownfield redevelopment could help Minnesota communities weather the current stretch of drastic budget cuts and diminished funding opportunities.

EFFICIENT USE OF EXISTING PUBLIC INFRASTRUCTURE

“We didn’t have to go 40 miles outside of the city. This site was located near the freeway system so the transportation networks for moving product were good and fit our needs. The availability of affordable land in a central location was a huge advantage for our company.”

- Brian Dahl, President Capitol Wood Products

Another long-term economic benefit of brownfield redevelopment is its impact on public infrastructure costs. As the majority of brownfield sites are located in developed areas, site redevelopment maximizes use of existing public infrastructure. Many are located along existing commercial/industrial corridors in close proximity to the existing transportation system. The location efficiency of brownfield sites reduces or eliminates the demand for public infrastructure and services to be extended beyond the existing fringe of development. This allows public funds to be used more effectively while maximizing the efficiency of existing infrastructure. According to a 2008 study, infrastructure costs for

greenfield development are between five and six times greater than infrastructure costs related to development on brownfield sites (See Figure 1).^{xiv} As brownfield sites are redeveloped, new businesses or residents that will need to leverage existing infrastructure also provide important property tax revenue to maintain existing infrastructure.

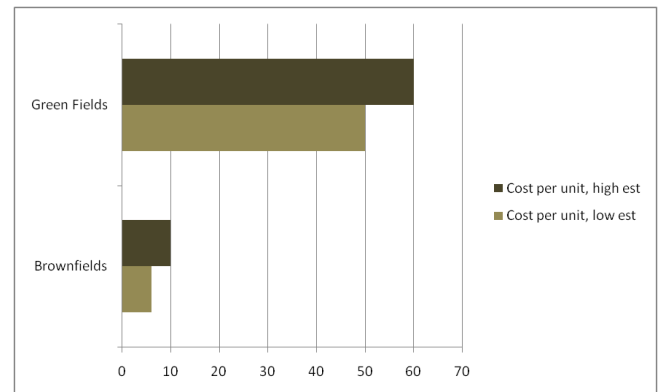


Figure 1: Cost of Infrastructure Brownfields v. Greenfields

SOCIETAL/COMMUNITY BENEFITS

The benefits of cleaning up and redeveloping a brownfield site extend far beyond the boundaries of a remediated parcel. Ancillary economic, fiscal and health benefits naturally follow site redevelopment. Investment comes back to an area in the form of other businesses opening up, bringing more jobs and increased tax base well beyond the developed site. It is estimated that properties located within a ¼-mile radius of a redeveloped brownfield site realize between a 5-15% increase in property value.^{xv} Fifty-eight project sites around Minneapolis were studied to assess property value changes for properties located within ½-mile of a redeveloped brownfield site.^{xvi} This study yielded the following results for Minneapolis:

Type Project	Geographic Scope = 2,500 ft
Residential	3.1%
Commercial	4.6%
Parks	4.4%
Industrial	3.2%
All sample (net)	2.7%

The findings of this study are further supported by the EPA’s 2010 Brownfield Overview report,^{xvii} which also determined a 2-3% increase in property value for properties located near remediated and redeveloped brownfield sites. Further, EPA states that properties located within a one-mile radius of a redeveloped site could expect an overall value increase of .5 to \$1.5 million dollars and a reduction in crime.^{xviii}

Brownfield remediation also extends public health benefits to communities beyond removing blight. A 2002 study by the Johns Hopkins University’s School of Public Health analyzed 182 vacant properties across southeast Baltimore for correlations between known or suspected contamination and public health issues present in the community. The study concluded, “The health analysis revealed disparities across southeast Baltimore, including excess deaths from respiratory illness and cancers...and a spatial and statistical relationship between environmentally-degraded brownfields and at-risk communities.”^{xix} Although health disparities can result from multiple factors in an environment, this study’s findings provide the impetus for leveraging brownfield cleanup as a tool to reduce public health disparities.^{xx}

Recent housing and livability trends favor denser urban spaces that are highly accessible and connected. Within the Twin Cities metro area, the economic recession and higher fuel prices have caused a pause in outward geographic growth^{xxi}, providing an opportunity to implement strategies that can better connect future land use and transportation investments with current consumer preferences.^{xxii} Brownfield sites are largely located in urban areas and therefore present redevelopment opportunity that aligns with shifting consumer preferences and favors density over sprawl.

1101 West Broadway, Minneapolis



- Catalyst Community Partners and City of Minneapolis restored 12,000 s.f. commercial space in NE Minneapolis
- Property off of tax rolls for past 15 years
- Expected to bring \$42,000 to tax rolls
- First in series of corridor redevelopments that work to bring economic vibrancy along Broadway Avenue.

ENVIRONMENTAL BENEFITS

Brownfield remediation and redevelopment health benefits also translate to environmental health. Environmental benefits include reductions in demand for developable land, energy consumption, and greenhouse gas emissions, as well as improvements in air and water quality. Many brownfield sites in Minnesota contain soil and groundwater contamination at levels posing unacceptable risks to human health or the environment, based on EPA and MPCA regulations and guidelines. As these sites are redeveloped, contaminated soils are removed or isolated to prevent exposure, buildings can be constructed to keep contaminant vapors from seeping in, and groundwater may be treated to remove contaminants. The MPCA’s voluntary cleanup programs provide oversight of these cleanup activities, determining what levels of action are sufficient to protect human health and the environment.

Beyond the site-specific benefits of brownfield redevelopment, redeveloping brownfields also contributes to responsible regional growth and a reduction in demand for developable land on urban fringes. A 2001 study by the George Washington University found that one redeveloped brownfield acre conserves 4.5 greenfield acres.^{xxiii} For completed brownfields, using a conservative 3:1 ratio, 367,000 greenfield acres have already been saved. If nationwide sites that remain idle were to be redeveloped, between 6.8 and 15 million more acres could be saved.^{xxiv} If redeveloped, these sites hold the potential to accommodate between 7.4-16.5 million households and 15.5-34.5 million jobs.^{xxv}

Applying the 3:1 ratio to all known brownfield sites in Minnesota suggests the potential to save tens of thousands of greenfield acres through redevelopment of these contaminated sites.

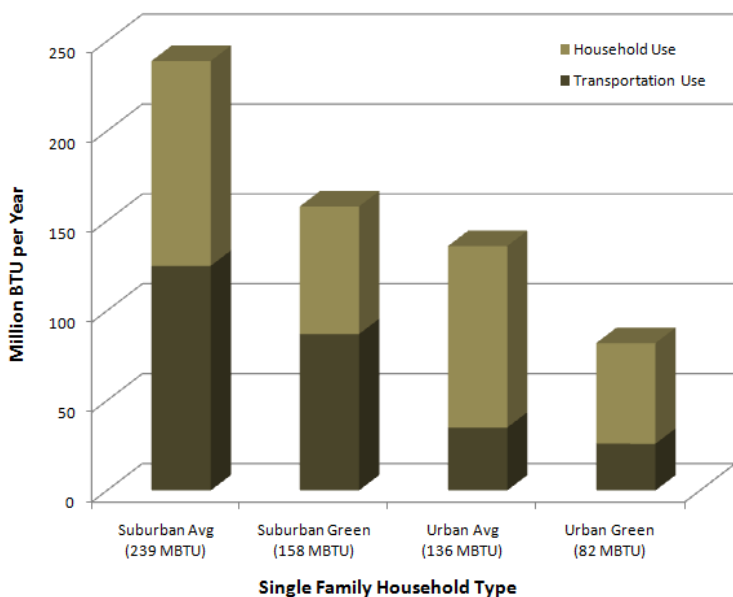


Figure 2: Average Household Energy Use by Location

**(BTU= British Thermal Unit)*

The density and urban location of most brownfield sites reduce demand for transportation, resulting in energy and air quality benefits. When compared to greenfield development, development on brownfields are estimated to contribute to a reduction in greenhouse gas emissions by 20-40 percent.^{xxvi} Figure 2 demonstrates how the location efficiency of a centrally-located residential unit significantly outperforms suburban or greenfield counterparts in terms of overall energy demand.^{xxvii}

Further, EPA conducted five studies that concluded redeveloped brownfield sites result in improved air quality and reduced stormwater runoff.^{xxviii} These studies found that, based on the location efficiency of redeveloped brownfield sites compared to greenfield sites, brownfield (VMT) redevelopments contribute to an estimated 32 to 57 percent reduction in vehicle miles traveled and an estimated 47 to 62 percent reduction in stormwater runoff. The reduction in VMT is associated with reduced air pollution emissions, including greenhouse gases. Finally, a 2008 report released by the Urban

Land Institute found that compact urban redevelopment holds the potential to reduce VMT’s by 20 to 40 percent when compared to alternative sprawl scenarios.^{xxix}

Finally, existing brownfields can also contribute to environmental objectives through conversion to wildlife habitat, providing land for community amenities such as urban agriculture and rails to trails programs as well as providing potential locations for renewable energy production. EPA estimates that Minnesota has a number of existing brownfield sites with “Good” to “Excellent” potential for wind and biomass production.^{xxx}

CONSEQUENCES OF IDLE BROWNFIELDS

Along with the benefits of brownfield cleanup and redevelopment, it is important to understand the impact of brownfields if they are left idle and undeveloped. Brownfield remediation and redevelopment received great attention and funding in the mid-1990s. Since that time, funding has been inconsistent, the easiest and most visible sites have been addressed, constituent and supportive bases have changed and state budget challenges have emerged. Despite these shifts, brownfield sites present in Minnesota and across the nation remain an opportunity for equitable economic and environmentally sensitive development.

If left idle, brownfields can perpetuate ill effects on the communities in which they are located through diminished local job opportunities and tax base, decreased community activity and vibrancy, increased blight and potential for crime, and increased risk of exposure to contaminants. On a state and regional level these ill effects would translate into increased public infrastructure costs, more traffic and air pollution, and a diminished ability to grow local businesses or attract major corporate employers to locate here. Leaving these properties unaddressed counters the economic, fiscal, social and environmental benefits highlighted in the previous section. Reduced tax base and jobs paired with increased crime and environmental impacts is not the way to make communities stable and sound.

Mayor Elizabeth Kautz of Burnsville, who is currently President of the U.S. Conference of Mayors, points to the former downtown Burnsville, now redeveloped as the 'Heart of the City', as an illustration of these impacts. This area, located around the intersection of Nicollet Boulevard and Burnsville Parkway in Burnsville, was developed in the 1960s to serve as a downtown for the growing suburb. It housed a K-Mart store, a few gas stations, some restaurants and office buildings. When Burnsville Center was constructed in the mid-1970s, activity in the "downtown" area declined. By the late 1990s, the area had been virtually abandoned by its former businesses and sat idle and blighted in the middle of Burnsville. The annual property tax revenue of the area declined, while the cost of services for the area increased due to increased crime and city service costs. The blighted area became an economic drag on the city as well as a hole in the fabric of the surrounding community. In 2007, the area was redeveloped into the Heart of the City, a 54-acre mixed-use development featuring retail, business and office space, a community arts center, and diverse housing opportunities. As a result, and despite the challenging economic conditions of the past few years, Burnsville has seen the tax base for the Heart of the City area increase from \$200,000 per year to approximately \$2-3 million per year.

Clyde Iron Works, Duluth



- 10.2 acre site sat vacant for past 20 years
- Nowhome to 7 businesses and community facilities, including Clyde Iron Restaurant and the Boys and Girls Club
- New Heritage Sports Center operates year-round, bringing an estimated \$2 million in additional tourism spending to the area
- Project has leveraged \$25 million in private investment

CURRENT OPPORTUNITIES

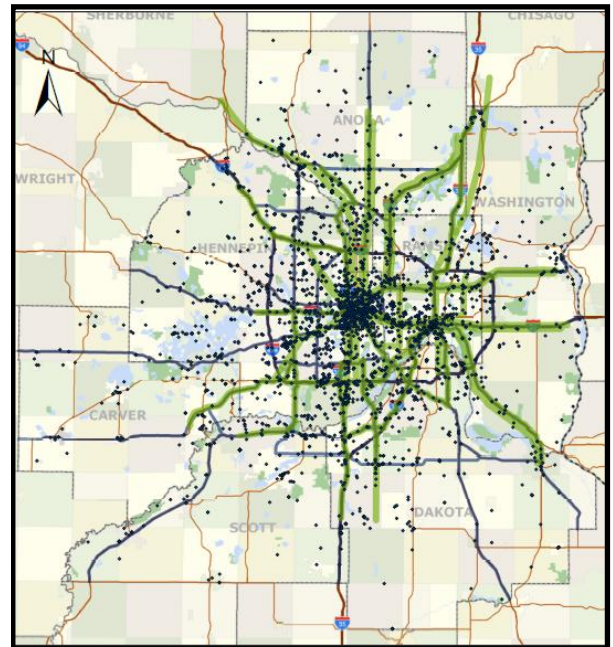
EXAMPLES OF MINNESOTA'S BROWNFIELD REDEVELOPMENT OPPORTUNITIES

Opportunities exist across Minnesota for utilizing brownfield redevelopment to foster economic growth and community revitalization. From Rochester to Bemidji and from Marshall to Duluth, targeting brownfields sites for cleanup and redevelopment can provide the sustainable economic, community and environmental benefits described above. Now more than ever it is critically important to the economy of Minnesota's land to assemble smaller, available parcels that can comprise attractive, developable sites or corridors for future in-fill development.

Examples of corridors or areas where these opportunities exist across the state include:

- **Central Corridor, Minneapolis/St. Paul.** The corridor of Minneapolis and St. Paul through which the new Central Corridor Light Rail will run contains over 1,000 brownfield properties, according to the Environmental Impact Statement prepared for the light rail project. Cleanup and redevelopment of these properties makes particular sense because of the proximity to public transit and potential for economic growth as light rail stations are constructed along the corridor.

- **Atlas Industrial Park, Duluth.** The former Universal Atlas Cement Plant is gaining momentum to be fully redeveloped into the new Atlas Industrial Park. In late 2007, 15 acres of the site underwent contamination investigation, and the Duluth Economic Development Authority (DEDA) subsequently secured cleanup monies from DEED to successfully complete the IKONICS expansion project. The City received two Targeted Brownfield Assessment (TBA) packages from Region 5 EPA that resulted in approximately \$180,000 of refined assessment work for this proposed project. It also received state funding to contribute to the construction of public streets and utilities in 2011 that will service the entire industrial park. At the same time, the Duluth Seaway Port Authority has secured an option to purchase 123 acres of the 550-acre former USS Duluth Works (steel plant) site. Additionally, on October 28, 2010, IKONICS released a press announcement of their all-time highest sales quarter meaning the anchor tenant at the Atlas Industrial Park is in a growth and acquisition mode with the intention of its entire operation to be located on a "campus" within the Atlas Industrial Park. Redevelopment momentum is building. However, if the DEED grant request is not fully funded, DEDA, the developer and owner, will most likely need to postpone the infrastructure construction project scheduled for 2011.



Map 2: Twin Cities Corridor Brownfield Opportunity Sites

- **Moorhead.** While several phases of Downtown Moorhead's redevelopment projects are nearly complete, their work is not done. There are properties that remain blighted and contaminated. The City of Moorhead has been systematically setting up another major redevelopment/cleanup district and has purchased about eight acres of various properties that were blighted or contaminated to the point the private market would likely not redevelop these sites. The City of Moorhead is waiting for the final building blight analysis. Once that is completed the exact shape of the tax increment financing (TIF) district and Hazardous Substance Sub-district (HSS) will be determined. The City is hopeful it can form both a

Redevelopment TIF district and HSS within the next three months that will target 30 to 40 million in redevelopment and accomplish significant environmental clean up during the redevelopment.

- **Twin Cities Army Ammunition Plant, Arden Hills.** The U.S. Army wants to divest a 585-acre portion of this facility, which sits near the intersection of I-35W and I-694, within ten miles of both downtown Minneapolis and downtown St. Paul. The site was used for the manufacture of small arms ammunition from the 1940s until the 1970s, resulting in significant contamination of soil and groundwater. The Army has been conducting cleanup at the site for thirty years, but is only required to remediate the property to the levels required for Army-specific industrial use, meaning that additional cleanup will likely be necessary before the site can be reused. The property currently sits idle, with a number of abandoned structures remaining on-site.

BARRIERS TO CAPITALIZING ON MINNESOTA’S BROWNFIELD OPPORTUNITIES

Despite the existence of these opportunities, and despite all of the benefits of brownfields redevelopment described in the sections above, securing consistent funding poses a significant barrier to brownfield revitalization in Minnesota. Brownfield sites pose complex fiscal challenges to potential developers, municipalities and broader communities alike. The need for up-front capital to clean contaminated sites, paired with a shortage of loan availability and private equity investment monies, requires stakeholders to seek alternative funding sources. Government grants are often necessary to help defray upfront cleanup costs in order for a brownfield project to become financially viable. Loans and loan guarantees are key to vertical development, but are historically more difficult to obtain on brownfield sites due to lenders’ reluctance to become involved with contaminated properties.^{xxxii} A combination of grant and loan programs available to developers and municipalities is needed to provide a comprehensive toolkit to assist on up-front and ongoing remediation and redevelopment needs.

Funding programs available in Minnesota include those offered by EPA, DEED, the Metropolitan Council and some county (Hennepin and Ramsey) and city-backed funding initiatives. Not surprisingly given the overall government funding situation, these programs have experienced funding volatility over the past few years. Funding for Metropolitan Council’s brownfields grant program (the “Tax Base Revitalization Account”) became vulnerable, at least in the short term, when the 2009 Legislature authorized shifting up to half of those funds away from brownfield redevelopment to cover transit operating costs during FY 2009 – FY 2011. DEED’s program funds come, in part, from the Minnesota General Fund, and thus are similarly vulnerable to removal and use for other competing purposes within DEED. The Hennepin and Ramsey County Environmental Response Fund programs currently have sunset dates at the end of 2012, meaning that legislative approval will be required to retain those programs beyond 2012.

The one exception to this trend is the EPA brownfields grant program, which has seen an increase in funding rather than a decrease, due to the federal government’s recognition of the important role that brownfield redevelopment can play in the nation’s economic recovery. In order to obtain EPA funding, however, Minnesota projects must compete with projects from 49 other states.

POTENTIAL FOR SPURRING ECONOMIC GROWTH THROUGH BROWNFIELD FUNDING

The majority of brownfield projects that leverage public resources – both in Minnesota and across the nation – rely on a combination of funding sources to successfully clean up a site. Based on experience to date, there is a high probability of encountering contamination issues during the process of redeveloping property with historic commercial/industrial use. The longer the property has had historic commercial/industrial use, the more likely it will be that contamination issues will need to be overcome before the property can be redeveloped to accomplish the best economic reuse of the property. The private sector has limited capacity to absorb the added cost of completing environmental investigations and cleanups, as private developers require a

sufficient return on investment to initiate redevelopment activities. Government’s return on investment is more broadly defined than the private sector definition because, from the government’s perspective, that return on investment can include such items as taking advantage of existing infrastructure, increasing the tax base in the urban core and other economically challenged areas of the state, creating jobs in areas with a dense workforce, and leveraging private investment.

In 2008, the Northeast Midwest Institute estimated that on average, brownfield redevelopment projects leveraging public funds draw 20-25% from federal sources, 45% from state sources and 30-35% from local sources.^{xxxii} The economic impact and ability to leverage private investment through that public funding investment is impressive. One of the largest and most important funding programs in Minnesota, the DEED brownfield program, estimates the following results from their funding programs since 1995:

DEED Brownfield Program Estimated Results	
1995-2010	
Brownfield cleanups funded	~276
Total funds granted	\$118 million
Amount of private investment generated	\$3 billion
Number of new jobs created	20,678
Number of jobs retained	12,331
Number of acres cleaned up	2,939
Increase to local tax base	\$73 million

The average benefits attained from these DEED-funded projects can be used to develop a rough estimate of the potential benefits that could result from a focused effort to clean up and redevelop a significant portion of Minnesota’s known contaminated sites. For purposes of a conservative estimate, assume that two-thirds of the 10,000 known contaminated or potentially contaminated sites contain only low levels of contamination that do not require significant cleanup. While investigation and redevelopment of those sites could still provide significant economic and community benefits, the redevelopment would not require substantial cleanup, meaning public investment in site cleanup would not be necessary.^{xxxiii}

Of the 3,300 remaining sites, assume that half are utilized by ongoing, viable operations that are unlikely to wind down in the next ten to twenty years, and thus would not be ripe for redevelopment. Of the 1,750 remaining sites, assume that half are in unmarketable locations that would not be capable of generating the kind of benefits provided by past DEED-funded projects. Even using these fairly conservative assumptions, there are an estimated 875 contaminated sites, already identified, that could be remediated and redeveloped in the near-term if the barrier to redevelopment posed by cleanup costs could be removed– in the process creating jobs, spurring private investment, increasing tax base and revitalizing communities. Applying the ratios from the DEED-funded cleanups to calculate the potential benefits of cleaning up and redeveloping those 1,750 sites results in the following rough estimates:

- \$9.5 billion in private investment generated
- Over 65,500 jobs created on redeveloped sites
- Over 38,000 jobs retained on redeveloped sites
- Over \$230 million in increased tax base

These results could play a significant role in revitalizing Minnesota’s economy as well as its communities.

CONCLUSION AND RECOMMENDATIONS

Brownfield remediation and redevelopment is part of the solution to Minnesota's current economic difficulties. The benefits generated from brownfield revitalization are consistent with established state and local goals and objectives in addressing current and future economic, social and environmental demands. Additionally, funding brownfield projects is one of the most efficient means of leveraging public investment to provide these benefits to the communities in which brownfield sites are revitalized.

In a time of state and local budget constraints paired with challenging economic, fiscal, social and environmental demands, brownfield redevelopment is a smart, sensible and sustainable way for Minnesota to make economic and social progress. The current downtrend across Minnesota's economy demands creative and lasting solutions – and brownfield redevelopment is poised to address these needs.

Now is the time to capitalize on existing brownfield opportunities around the state, by:

- Renewing and deepening the commitment to brownfield redevelopment of Minnesota's state, regional and local government, as well as its real estate community, environmental professionals, corporate community, lenders, and nonprofit community;
- Developing innovative methods of fostering brownfield redevelopment projects through Minnesota's voluntary cleanup programs and brownfield funding programs, with the assistance of private and nonprofit stakeholders; and
- Ensuring that Minnesota's brownfield funding programs are stable, consistent, and sufficient to support the cleanup and redevelopment of our state's brownfields. In particular, funding programs should not be vulnerable to reallocation of their funds to competing programs, and income obtained by the state through the voluntary cleanup programs (which assess a fee for services) should be used exclusively for the operation, expansion and innovation of the voluntary cleanup programs.
- Incorporating broader community and regional objectives into the brownfield redevelopment decision-making process, to ensure that public funding of brownfield projects benefits the communities surrounding the projects and appropriately leverages private investment.

We, the board of directors and advisory committee members of Minnesota Brownfields, are working hard to facilitate brownfield redevelopment now. We hope you will join us.



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Minnesota Brownfields is a 501 (c) (3) non-profit organization dedicated to promoting efforts that support and enhance the reuse and redevelopment of brownfields throughout the state of Minnesota by conducting research, sponsoring education and public policy forums, and establishing partnerships with both private and public organizations involved in the reuse or redevelopment of brownfields

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