considering that the real estate mantra is “location, location, location,” it is not surprising that residential brownfield redevelopment is a hard sell. Brownfields—abandoned or underutilized industrial sites—generally have a reputation as undesirable locations for housing because of fears about pollution and contamination. The assumption is that brownfield sites are more appropriate for commercial and industrial uses than residential uses because remediating the soil to residential standards can be prohibitively expensive. City councils are loath to commit funds to a speculative residential brownfield project. Similarly, developers like to know the market is behind them and thus prefer to undertake residential development on cleaner pastures rather than tackle the complexities of brownfield reuse.

Turning a former industrial park into a residential development raises many questions for cities and developers: How contaminated is the soil? How clean would the site have to be to meet federal and state standards? What would such a cleanup cost? Would anyone want to live on the site of a former brownfield? Why not build on a greenfield site on the urban fringe where contamination is less likely? Although a degree of uncertainty is inherent in residential brownfield redevelopment, many of these questions have become easier to answer during the last decade due to innovations such as risk-based corrective action, new contamination treatment technologies, an array of federal and state brownfield funding programs, and the evolving smart growth movement. These innovations, in turn, have led to an increasing number of brownfields being redeveloped as housing.

Community and economic development staff at the City of Roseville, an inner-ring suburb of the Twin Cities, are currently redeveloping a collection of abandoned and polluted truck terminals and other former industrial sites known as Twin Lakes. The 170-acre Twin Lakes site will be redeveloped as a mixed-use business park and residential area and could include as many as 700 units of housing when completed. In many ways, the redevelopment of Twin Lakes is a microcosm of the changing development patterns for inner-ring suburban brownfields.
The Center for Urban and Regional Affairs (CURA) and the Humphrey Institute of Public Affairs at the University of Minnesota have complemented Roseville’s efforts to redevelop Twin Lakes. Through CURA’s Local Government Planning Internship Program, the city’s Community Development Department hired a series of four graduate assistants (including myself) between 1999 and 2002 to assist with the Twin Lakes planning process. Roseville also worked with 13 graduate students enrolled in a Humphrey Institute planning capstone class in 2001 to study the city’s development plan for Twin Lakes and identify alternatives for how the area might be redeveloped.

In a previous article published in the October 2001 CURA Reporter, Jeffrey L. Miller, a CURA planning intern at Roseville from 1999 to 2000, used the example of Roseville’s Twin Lakes redevelopment effort to highlight the obstacles to and opportunities for inner-ring suburban brownfield redevelopment projects. Miller’s article focused primarily on commercial-industrial reuses at Twin Lakes because that was the city’s plan for this site at the time. In recent years, market forces have changed the focus for redevelopment on some parcels at Twin Lakes to residential reuses. Based on my experiences as an intern with the City of Roseville during 2000–2001, this report uses the Twin Lakes project as a case study of the challenges of residential brownfield redevelopment and offers several policy prescriptions for encouraging such projects in other suburban communities.

Residential Redevelopment at Twin Lakes: A Case Study

The Twin Lakes site is located just north of Rosedale Mall and is bounded by County Road C to the south, Cleveland Avenue to the west, and Snelling Avenue to the east. The site encircles the southern end of Langton Lake. The 170 acres of land on the Twin Lakes site are largely occupied by trucking terminals, remnants of a declining industry. In the 1950s, Twin Lakes sat on the outskirts of the Twin Cities metropolitan region, making it an ideal location for trucking terminals. Today, the site is surrounded by residential and commercial development and, consequently, is seriously underutilized.

With its easy access to Interstate 35W and proximity to both downtown Minneapolis and downtown St. Paul, Twin Lakes is prime real estate that would have been redeveloped years ago were it not sullied by pollutants—mostly petroleum and solvents used to clean engines—from decades of use by trucking companies. Like many suburban brownfield sites, Twin Lakes is only mildly polluted, but this has nonetheless slowed and complicated the redevelopment process.

Although fear of uncovering pollution has stymied many redevelopment projects, Roseville has taken advantage of a progressive state-level Pollution Control Agency, pilot grants from the federal Environmental Protection Agency (EPA), a regional housing shortage, and a boom economy in the 1990s to plan, clean up, and begin redevelopment of the area. Other built-out, cash-strapped, inner-ring suburbs may find lessons in Roseville’s approach.

Planning for Redevelopment. The Twin Lakes redevelopment project has benefited from a long-term vision for the area. In 1988, the City of Roseville designated the original 273-acre Twin Lakes site as a tax increment financing (TIF) district, which allows anticipated tax revenues on a property to be used to develop it and the debt to be paid off using the captured tax base for a specified time. City planners also developed a Twin Lakes Land Use Guide Plan to direct redevelopment efforts at Twin Lakes. Because the purpose of the redevelopment project was to invigorate the city’s tax base and provide a better mix of living-wage jobs, the original land-use plan included a mix of retail, office, and business uses. More than 100 acres on the site were developed in accordance with the initial land-use plan during the 1990s.

In 2001, Roseville completed a Twin Lakes Renewal Strategy to consolidate various land-use plans for the remaining 170 undeveloped acres in Twin Lakes. As part of this strategy, the city provided opportunities for public comment and conducted an Alternative Urban Areawide Review (a mid-sized environmental investigation report). Although the original intention was for Twin Lakes to be developed entirely as commercial-industrial uses, public comment from residents and development corporations suggested that residential uses might also be integrated into the redevelopment plan. Because of the strong residential character of the land to the north of Twin Lakes and the high amenity value of the site, planning students in the Humphrey Institute capstone seminar also suggested mixed-use development that incorporated more housing, particularly around the Langton Lake area. This public input helped to shape the discussion about the next phase of redevelopment at Twin Lakes, and Roseville planners decided to alter the land-use plans to incorporate residential uses along Langton Lake.

The land-use plan for Twin Lakes that has been approved by the Roseville city council outlines a mixed-use, livable community that includes office, service, retail, and high-tech flex work spaces, as well as 500–700 units of new housing varying in density from 10 to 24 units per acre. The plans include two neighborhood centers, a workplace village, and a health and hospitality district where Roseville hopes to attract a medical office facility. In addition to a fine-grained street pattern designed to encourage greater integration of the mix of uses designated for the area, the plan also includes construction of Twin Lakes Parkway, which will connect the existing Terrace Drive to the Interstate 35W ramp at Cleveland Avenue.

Although the redevelopment of Twin Lakes is gaining momentum, there is still much work to be done. The master plan indicates the proposed future uses for each parcel in the area. One of the next steps is for the City of Roseville to encourage acquisition of sites by developers, or even to purchase sites itself (although properties in the area have been selling at somewhat inflated prices). Roseville could exercise its power of eminent domain to acquire properties, but the city currently does not intend to become a prime landholder in Twin Lakes.

Funding Brownfield Redevelopment. The City of Roseville has received three grants from the EPA totaling $850,000 for use in Twin Lakes. The first was a pilot grant for property assessment and community outreach focusing on the future site of the Twin Lakes Parkway. The second was a brownfield cleanup revolving fund loan that can be used to pay for contamination remediation in the Twin Lakes area. The third grant was to conduct an areawide groundwater study of Twin Lakes. Other funding sources included $75,000 from the Metropolitan Council for site planning, financial projections, and market studies.

The City established a Twin Lakes tax increment financing district in 1988 that will expire in 2014. During the first wave of redevelopment in Twin Lakes in
1994, TIF was heavily tapped to pay for the cleanup of the Arthur Street landfill, which was discovered when Ryan Companies redeveloped several sites as high-tech office space. However, TIF’s power as a financing tool for Twin Lakes is steadily waning. At this point, there will not be enough time between groundbreaking on a potential TIF project and the expiration of the TIF district in 2014 to collect the increment necessary to fill the funding gaps in the project. In January 2003, Roseville applied for a special legislative remedy to allow for creation of new tax increment urban redevelopment districts and to authorize limited spending of increment from each district within the redevelopment area, because some development projects have a larger gap than others.

Residential Redevelopment at Twin Lakes. Today Twin Lakes is poised for redevelopment. A number of developers have expressed interest in the area, including Roseville Properties Management Company, which recently submitted a proposal to the City of Roseville for a mixed-use development that includes 450,000 square feet of retail and office space and 500 market-rate housing units on two former trucking terminals. Although the market for office space has weakened since Roseville began its planning process, the housing market has grown stronger. At this point, it appears that the less traditional brownfield reuse—residential redevelopment—is likely to occur at Twin Lakes before the more typical reuses as commercial or industrial space.

In choosing to pursue residential redevelopment at Twin Lakes, Roseville has had to overcome a number of obstacles that are likely to confront any city that undertakes residential brownfield reuse projects. Several of these obstacles—and the strategies and tools Roseville used to overcome them—are discussed below.

The assumption that brownfields should be reused only as industrial sites or parking lots. Because most brownfields once hosted an industrial use, people may come to think of the site as having only an industrial future. But risk-based corrective action (RBCA, or “Rebecca”), a policy that many states including Minnesota have adopted, makes it possible to clean up a site to a required level based upon the intended reuse of the land (industrial, office, or residential). Depending on the land use intended, specified levels of contamination are allowable in soil and groundwater; levels found to exceed those standards must be remediated to meet the standard.

Industrial, commercial, and office end uses are treated much less stringently than housing. Because most of the land around nonresidential buildings is typically covered with pavement, which provides a barrier to the contamination, and because workers largely remain inside the buildings and do not spend much time recreating on exposed soil as they might at home, far lower levels of remediation are required. Future housing sites require the highest level of cleanup due to the exposure.
levels long-term residents might be subjected to (potentially 72 years, 12 hours per day), as well as concerns that children could accidentally ingest polluted soil or other contaminants.

Because the degree of remediation required is determined by the future land use, master-planning of a redevelopment site is crucial to making the right economic decisions along the way. It would be prohibitively expensive (as well as unnecessary) to clean up all of Twin Lakes to residential standards, for example, because residential remediation standards are the most stringent and therefore the most difficult and expensive to meet. By remediating the nonresidential sites to commercial/industrial standards, the costs of remediation when distributed across the entire redevelopment area can be quite reasonable. In the case of Twin Lakes, careful planning for future uses kept the average cost for remediation across the entire site to between $0.80 and $1.20 per square foot.

The fear of unknown contamination, which can drive away potential developers. According to the EPA, brownfields are “abandoned, idled, or under-used industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination” (emphasis added). By including perception in its definition, the EPA allows that there might be no actual contamination at all on a site generally considered to be a brownfield. Nonetheless, the mere suspicion of contamination might be enough to keep at bay otherwise interested buyers, developers, and municipalities who fear liability for future cleanup costs. In short, the perception of contamination—whether justified or not—can result in market behavior just as destructive as that engendered by actual contamination of the soil.

Because the issue of perceived contamination can play as much of a role in redevelopment as real contamination, redevelopment often must be planned with contamination as a looming unknown. Knowing the former land uses on the site, the city or other redevelopment entity must assume there is contamination present and proceed by undertaking an environmental assessment of the site. With the help of an EPA pilot grant, Roseville has done just that. A good portion of the funding from EPA has been earmarked for extraction of soil borings and lab testing of soil samples from Twin Lakes. Some of those samples have indicated that contamination is present in the soil, but thus far the levels have been low enough not to require remediation. Because more serious contamination may nonetheless be present on areas of the site that have not yet been tested, the city has a brownfield revolving loan fund to offer to interested developers or land owners to help defray the costs of any cleanup required.

The EPA pilot grant also paid for extensive community outreach, which

The use of petroleum products and engine-cleaning solvents mildly contaminated the soil around the trucking terminals that formerly occupied the Twin Lakes redevelopment site. By cleaning up nonresidential redevelopment sites to commercial/industrial standards, the City of Roseville has kept remediation costs for the project as a whole quite reasonable.
allowed City of Roseville staff to educate the community about brownfield redevelopment and elicit comments from local business owners, residents, elected officials, and state and local agency representatives regarding what uses they wanted to see developed on the site. In spite of contamination concerns, housing consistently emerged as a strong component of the redevelopment project during all of these discussions. In the year and a half since the city council approved the Twin Lakes master plan, market demand for housing has actually resulted in more housing being added to the area around Langton Lake than was originally planned.

The risk that the city will be held liable for any contamination found. The Superfund approach of the 1980s and 1990s was an attempt to punish polluting landowners and make them pay for cleanup of degraded land in their charge. Today, EPA is taking a different tack. The agency has developed a competitive process for Brownfield Demonstration Assessment Pilot Grants of $150,000 to $200,000 to investigate contamination and draft cleanup plans. This approach is more appropriate for smaller brownfield sites than for Superfund-level cleanups, but the key factor is that the focus is on remediation rather than punishment. Roseville received a $200,000 demonstration grant, which was instrumental in supporting the redevelopment process at Twin Lakes.

In the state of Minnesota, the Minnesota Pollution Control Agency (MPCA) runs the Voluntary Investigation and Cleanup program, which allows properties to register with the MPCA and receive letters indicating “no further action needed” once cleanup has been completed on a site, or “no association” (with contamination), which retroactively removes liability from the current property owner. A number of property owners in Twin Lakes have worked with MPCA and have received such letters. Given the voluntary nature of the program, the focus has clearly shifted away from punishment, which only succeeded in idling facilities and driving property owners into obscurity. The focus on redevelopment strategies instead allows cleanup funds to go to proactive property owners, who have access to more funding sources once MPCA removes from them any legal responsibility or liability for cleanup.

Today there is even contamination insurance available for purchase from select insurance firms. The insurance policy gives a city or other developer the ability to proceed on a site where the extent of contamination is uncertain and where ballooning remediation costs might otherwise sink the entire project. Roseville staff learned about the opportunity to buy such insurance, but will not consider purchasing it unless the City becomes a prime landowner itself at some point in the future.

The assumption that it is easier to develop greenfield sites on the urban fringe than deal with the complexities of brownfield redevelopment. During the last decade, the Twin Cities region has earned the dubious distinction of being one of the nation’s most sprawling metropolitan areas. Although development on the urban fringe may appear more attractive than navigating the uncertain terrain of brownfield redevelopment, the potential infrastructure costs associated with fringe development counsel against such a short-sighted view. A mixed-use development like Twin Lakes will make better use of the transportation infrastructure already in place than would any fringe community, and will provide much-needed housing, a range of skilled labor jobs, and proximity to the economic engine of the Twin Cities.

Beyond the addition of Twin Lakes Parkway, no new roads are needed to support Roseville’s business park, yet many multimodal connections are enhanced. The I-35W ramp at Cedar-Land Avenue is being reconfigured for safety and to link to the Twin Lakes Parkway. The express bus or light-rail line slated to run on the Northeast Diagonal through Ramsey County will have a regional transit stop or hub at Twin Lakes. Another proposed light-rail line from White Bear Lake to Minneapolis would likewise tie in perfectly with the Twin Lakes development. In addition, Roseville is already fully connected to sewer and water service and can readily support the proposed development at Twin Lakes without costly pipe extensions or new lines. All of these factors have helped to make Twin Lakes an attractive location for redevelopment.

The entire region benefits when new developments can plug into the existing transportation and sewer infrastructure as Twin Lakes does. Roseville will be adding hundreds of new households that will bolster the existing and proposed mass transit systems by adding many new potential riders to an area within walking distance of key transit stops.

Minnesota: The Once and Future Brownfield Leader?
The field of brownfield redevelopment, particularly for residential reuse, is at a crossroads. For an industry where so little was known or understood that an esoteric vocabulary had to be developed to even begin to discuss it, we have come a long way in 10 years. Public officials, bankers, economic development specialists, and real estate developers have adapted to the challenges of brownfield redevelopment, and the human capital exists to proceed confidently with the successful redevelopment of formerly contaminated sites.

At EPA’s national brownfields conference in 2000, brownfields expert Charles Bartsch publicly touted Minnesota as one of the most progressive states in the nation for brownfield redevelopment. Unfortunately, state commitments to brownfield redevelopment began retrenching even before the economy soured following 9/11. The Minnesota State Legislature’s property tax reforms in 2001 jeopardized financing options for brownfield developments in many Minnesota municipalities. Economic development experts were dismayed at the limits placed on tax increment financing. With municipal debt service now a top priority over new spending, tax increment districts are no longer a viable way to finance the revitalization of most brownfield sites. Likewise, the Minnesota Department of Trade and Economic Development’s Redevelopment Account grant, one of Minnesota’s largest brownfield redevelopment funding programs, was repealed during the 2002 legislative session. The demise of this program is a real blow to smaller municipalities that had intended to commence remediation efforts on local sites but cannot afford to do so without such assistance.

Based on Roseville’s experience with the Twin Lakes redevelopment project, it is possible to identify several policy changes that would assist inner-ring suburbs with their efforts to redevelop brownfields and encourage the metropolitan region to seek the highest and best uses of its land.

1. Allow new 25-year redevelopment TIF districts to be created.
   Considering how few state funding sources remain for brownfield rede-
A regional brownfield redevelopment structure modeled on the fiscal disparities act would allow suburban communities to more equitably share the economic burden of brownfield redevelopment.

1. TIF is a critical brownfield tool. TIF needs to be adequately flexible to allow for pooled districts and permit cities to close and start new districts when necessary. Without TIF laws that work for inner-ring suburban communities, new redevelopment projects will continue to leapfrog to the developing outer-ring suburbs.

2. Recognize roads as economic development tools. Brownfield redevelopment generates new jobs for the region, but often require new roads to break up and provide access to the large parcels characteristic of former industrial sites. Ideally county and state aid would provide transportation finance assistance for the construction of such roads when a city can show the site will provide new jobs. When cities have to foot the bill for new roads on their own, the redevelopment process is further slowed.

3. Create a regional brownfield redevelopment authority for inner-ring suburban cities. Such an agency would be a regional entity for a regional problem. Today, an individual suburb is expected to bear all of the costs of a brownfield redevelopment project, even though other municipalities will reap some of the benefits of that redevelopment. No one city by itself can adequately foot the bill for brownfield cleanup and redevelopment, but together cities can share the costs. One way to fund a regional agency would be to create a structure modeled on the Charles R. Weaver Revenue Distribution Act (commonly known as the fiscal disparities act), in which a select group of inner-ring suburbs would contribute a portion of their commercial and industrial tax revenues to a regionwide contamination fund that would then be redistributed among brownfield redevelopment projects in the participating suburbs.

4. Suburban brownfield redevelopment projects need the support of local elected officials in order to succeed. City-led redevelopment projects can span decades and require city council support over the long haul, from planning to groundbreaking. Leadership shown by elected officials encourages the public to become more actively involved in the planning process, leading to better outcomes. Given that the makeup of suburban city councils will undoubtedly change over the course of a large-scale redevelopment project, general council support for the project allows city staff to maintain momentum.

5. Smart growth activists would be wise to support brownfield redevelopment efforts. Redeveloping potentially contaminated sites within the seven-county metro area advances the goals of smart growth advocates—less sprawl; more compact developments; better use of existing roads, mass transit, and sewers; a jobs-housing balance where workers can afford housing near their jobs; a cleaner environment; and less dependence on the automobile. Smart growth and brownfield advocates will find that their end goals are quite similar. If they can join together in coalitions, they will be able to consolidate their resources and lobby more effectively for permanent brownfield funding sources that contribute to smart growth efforts.

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