

Turning Brownfields into Parks

With the grass comes another kind of green, as these areas bring economic development to their edges.

By Peter Harnik and Ryan Donahue

Back in 1975, the rusted pipes and immense corroded tanks of Seattle's Gas Works Park seemed bizarre and incongruous against its verdant lawns. If old factory brownfields were repellent, and green parks were alluring, how could the two ever mate? But the imaginative flash by landscape architect Richard Haag broke that mold, and the reuse of that polluted property gave rise to an icon.

More than three decades later and 2,400 miles away a new icon is emerging in the city of Houston, also on a former brownfield. Twelve-acre Discovery Green is not only restoring ecological life to a blighted area but is also stimulating the kind of downtown redevelopment the city hasn't seen in over half a century. Thirteen months after the park opened in 2008, apartments started renting at One Park Place, a luxury building across the street — the first downtown high rise constructed in the city since the 1950s. This summer a 28,000-square-foot grocery store opened, another downtown event not witnessed during most residents' lifetimes.

But the road from Gas Works Park to Discovery Green has been a bumpy one. Despite the existence of hundreds of thousands of urban brownfields — patches of earth contaminated by previous uses — the vast majority have not become parks. In a more common plotline, the demise of an urban factory results in a fenced property that sits vacant for decades and, if lucky, gets rebuilt as some other structure.

When it comes to brownfields, the typical focus is on industrial and commercial reuse of the battered properties. The Gas Works model is different, and its value is now being proved in Houston. Discovery Green's \$182 million cost has already been far surpassed by the \$500 million of private development in its orbit.

This concept — brownfield parks spurring workplaces and residences around the periphery — could become very big in the coming decades. In a few cases it has already worked. Minneapolis, focusing on revitalization of its Mississippi central riverfront, removed toxins left from its milling and shipping industries to create Mill Ruins Park. The Minneapolis Park and Recreation Board has calculated that its \$55 million investment in parks in the brownfield-laden area, along with \$150 million in other public improvements, has leveraged \$1.2 billion in private investment.

The result: 8,300 jobs preserved and another 1,300 created. The riverfront now boasts 3,000 new residential units, as well as expanded commercial and entertainment space.



A long and winding path

The large number of orphan brownfields is partly an unintended consequence of CERCLA (the Comprehensive Environmental Response, Compensation, and Liability Act of 1980), colloquially known as Superfund. The law gave the U.S. Environmental Protection Agency the authority to respond directly to hazardous waste releases and to force cleanups according to a "strict, retroactive, joint and several" liability system. This structure meant that even parties with peripheral involvement in a site could be burdened with cleanup costs.

While the legislation helped clean up a few of the most egregious brownfield sites, it left the bulk of them unused.

Only brownfield properties with extraordinary economic potential — minor contamination combined with a prime location, categorized as Tier I — overcame developers' liability concerns without government assistance. As interest in downtown revitalization grew in the 1990s, and as developers' complaints about harsh brownfield laws sharpened, the EPA began to revise its legal and financial framework, moving more hard-to-remedy Tier II and Tier III properties towards productive uses.

The first step, in 1994, was the Brownfields Economic Redevelopment Initiative, which offered grants of up to \$200,000 to communities to facilitate their conversion to economic productivity. A greater change came in 2002 with the Small Business Liability Relief and Brownfields Revitalization Act, which exempted prospective owners from liability and set up a more transparent system for current owners to undertake site inquiry. The law also authorized \$200 million for citywide assessments, site planning, remediation, and revolving loans. It also appropriated funds to establish state programs.

To date, the EPA has provided more than \$850 million through 1,895 assessment grants, 279 revolving loan funds, and 752 cleanup grants.

Actions at the state level may be more significant. Many states now allow voluntary cleanup programs based on the proposed use of a site. Upon completion and approval of what is known as a "risk-based corrective action," the landowner receives a "covenant not to sue" or a "no further action" letter, guaranteeing that the state will refrain from future legal action over past contamination.

The new laws, combined with the economic repercussions from the 2008 real estate collapse, appear to be freeing up some of the value that has been frozen in Tiers II and III brownfields for years. Particularly significant is the fact that remediation for parks is generally less stringent and less expensive than remediation for housing. (There are, however, some skeptics who claim that state voluntary cleanup programs made too many concessions to developers, and that places where children play should not be held to a lesser standard than residential areas.)

A surprise

Today, even some Tier I properties that formerly would have been redeveloped as housing and offices are being turned into parks. This is win-win for the EPA, whose mission includes both remediation of pollution and reduction of land consumption on the urban fringe. (A 2001 study by researchers at the EPA and George Washington University found that, on average, for each acre of urban brownfield land redeveloped, 4.5 acres of outlying green space are preserved.)

There is plenty of data to substantiate the power of parks. In his book, *The Proximate Principle: The Impact of Parks, Open Space and Water Features on Residential Property Values and the Property Tax Base*, Texas A&M University professor John Crompton cites 25 studies that record increased property values around the perimeter of parks. In some cases, the economic impact can be measured as far as 2,000 feet away. Removing industrial blight has other impacts: the EPA has documented property value improvements of two to three percent within a one-mile radius of a cleaned up brownfield, even without turning it into a park.

Best is doing both. One study projected that cleaning a brownfield in the Lincoln neighborhood of Kenosha, Wisconsin, would result in a 1.7 to 6.2 percent rise in property values, but cleaning it and then turning it into a park would boost home values by 3.4 percent to 10 percent.

The value of brownfields-to-parks transformations is potentially huge, but these projects are not yet entirely self-sufficient. It is still difficult to secure funding for the early stages of brownfield development — planning, site investigation, and remediation — so those doing the conversions continue to rely on the support of the EPA, states, and in some cases, cities themselves (which can sometimes help out with financial incentives or tax breaks).

Nonprofit organizations such as The Trust for Public Land, Groundwork USA, and the Center for Creative Land Recycling sometimes also catalyze projects by engaging the community and working to fill funding gaps. Trust for Public Land vice president Ernest Cook noted that his nonprofit works to secure funding "based on the idea that parks provide myriad social, environmental, and economic benefits to the community."



Newark's Riverfront Park

Newark, New Jersey, devotes only five percent of its land area to parks (compared with 17.3 percent in neighboring Jersey City and 19.5 percent in New York City, across the Hudson River). This translates to only three acres of parkland for every 1,000 Newark residents. However, for better or worse, Newark does have many brownfields that are suitable for amelioration.

One site is on the Passaic River in Ironbound, a vibrant Brazilian-Portuguese community hemmed in by train tracks, highways, and Newark Liberty International Airport. Ironbound is especially short of green space, and the Ironbound Community Corporation has worked for decades fighting ideas it didn't like (such as a minor league baseball stadium) and promoting what it wanted: more parks. In the last few years the effort finally coalesced. Teaming up with The Trust for Public Land, the city of Newark, and Essex County, the community corporation pressed to turn the parcel into Newark Riverfront Park.

To do so, the team first had to expand an existing nearby brownfields development area to include the site so it would be eligible for state funding. The city then tapped into a state remediation fund for \$3.4 million in site assessment and cleanup. The team also secured a \$2.6 million state Green Acres grant for park construction.

For the community, Newark Riverfront Park will represent relaxation and play, but for the city it is designed as an engine for economic development. "There's absolutely no question in anyone's mind" about that, according to Scott Dvorak, AICP, director of The Trust for Public Land's Newark Program. This line of reasoning led the surroundings to be deemed an Urban Enterprise Zone and allowed the city to receive \$1.5 million from the state to make streetscape and infrastructure improvements around the park.

The development of Newark Riverfront Park will link with a nearby "superblock" of industrial sites, including the historic Ballantine Brewery. Ironbound Community Corporation secured an EPA economic development grant, aiming for green manufacturing, shops, and better pedestrian flows. Community leaders hope that the complex and the park, which should be finished more or less simultaneously, will generate momentum and funding for more work in the area.

Newark is in a game-changing mode now, with an activist mayor, and the new park on the old brownfield is part of its rejuvenation strategy. Newark Riverfront Park is expected to open in the fall of 2012.

Scioto Audubon Metro Park

The Whittier Peninsula juts into the Scioto River just south of downtown Columbus, Ohio. It's a 160-acre brownfield with the remains of asphalt and concrete plants, foundries, a cluster of railroad lines, and a massive city automobile impoundment lot. This derelict peninsula near the city center was a symbol and symptom of Columbus's sprawling development pattern.

A new symbol started to evolve in 1998, when the nonprofit organization Riverfront Commons launched a Riverfront Vision Plan. It was a sea change in thinking. "We don't have Lake Erie, we don't have mountains, we don't have the ocean," says Larry Peck, deputy director of Columbus and Franklin County Metro Parks, "but we've got beautiful riparian corridors, these big creeks, along with the Olentangy and Scioto rivers."

Politics also played a critical role in steering the focus towards downtown. Metro Parks, which is funded by both city and county residents, traditionally built nature parks outside the city boundary. As its 10-year property tax levy came up for a vote in 1999, the agency was criticized for not doing enough for city dwellers. Metro Parks recognized that it had to respond to demands for more urban parkland inside the I-270 loop.

The Whittier Peninsula was desirable for two different groups: conservationists, for its bird life, and developers, for infill housing. The initial concept included a nature preserve and up to 2,000 units of affordable housing. Audubon Ohio, which wanted to increase its urban presence, mounted a \$14 million capital campaign for a state-of-the-art nature center. (About \$4 million was underwritten by Grange Insurance, whose headquarters are only a few blocks away.) The handsome center, which opened in 2009, serves 100 schools within a five-mile radius. It expects to draw its 50,000th visitor by the summer of 2012.

The planned residences, however, were squelched by the recession and by the brownfield's geology. Most of the land at Whittier is old industrial fill — about 30 vertical feet of it. To build permanent housing would have required both remediation of the toxics and extensive engineering. Nevertheless, the new park has already spurred redevelopment in the nearby brewery district.

"For Metro Parks this was an investment," explains Peck. "We used funds from the Clean Ohio Fund, which at heart is an economic redevelopment program, and our goal is to make recreation spur jobs and to attract skilled workers by improving quality of life. We think a lot about how this fits into the economy of the city."

Metro Parks stepped outside its traditional nature park design by planning for a peninsula full of facilities: disc golf, two climbing walls, a bouldering course, a BMX course, boat launches, an already popular 2.2-acre dog park, and greenway connections to other trails.

The amenities are aimed at attracting young professionals and older affluent baby boomers back into the core. "I can see the park as being absolutely critical to some people's decision to live there," says Peck, "and with the Scioto River cleanup, there are even opportunities for canoeing and kayaking."

Toxic remediation of Scioto Audubon Metro Park has been far less costly than the city had feared. Of the \$13 million already spent on park development, remediation — including demolishing an abandoned factory, abating asbestos, and bringing in two feet of clean fill — has cost \$5.3 million. Further, remediation costs are often inseparable from site preparation costs that would occur anyway. Peck notes that "cleanup" costs included installing new waterlines and developing wetlands.



Discovery Green, Houston

The Discovery Green site, on the east end of downtown, had previously been a railway yard and then parking lots for the convention center. The city acquired the lots in 2002 and began planning an entertainment complex. Unexpectedly, a neighboring shopping and office center, which included a popular sliver of green space, was put up for sale.

Realizing that a park could be a powerful anchor for a revitalized neighborhood, a group of philanthropists formed a task force to acquire the entire site. The newly elected mayor, Bill White, jumped on board, agreeing to donate two huge city-owned parking lots and a section of road — a total of 5.5 acres — and to contribute some funds toward the purchase of the rest of the 12-acre site.

The group had to stall the purchase until the money could be raised, but by the end of 2004, it had bought the land for \$57 million and a Phase I remediation investigation was undertaken. The philanthropic partnership, which morphed into the Discovery Green Conservancy, decided to remediate the site beyond required levels, removing thousands of tons of contaminated soil rather than just capping it with clean fill. (While it's known that young children tend to eat dirt, Discovery Green, like most brownfield sites, is capped by two to three feet of clean fill. There are also restrictions on digging or disturbing the earth.)

According to the conservancy's former executive director, Guy Hagstette, "we wanted a clean site that would provide comfort to parents bringing their kids to play." Remediation cost \$1.2 million, funded in part by \$500,000 from the seller and \$395,000 from the city.

The nation's huge brownfield problem took more than a century to create. It may take just as long to repair, but it appears that parks — and the development they engender — will be an ever bigger part of the solution.

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Resources

Images: Top — Whether a historical artifact, a giant piece of artwork, or just a way to save money on demolition, Seattle's Gas Works Park has become an icon for a new kind of urban park. Photo Wildcat Dunny, <http://creativecommons.org/licenses/by/2.0/>. Middle — Since its 2008 completion over an old railway yard, Houston's Discovery Green has rocked the city's development assumptions, in part by spurring the first downtown residential high-rise building in five decades. Photo dabfoto creative/David A. Brown. Bottom — Who says old asphalt and concrete plants can't be recycled into fun? An artificial climbing rock is doubly exciting in flat-as-a-board Columbus, Ohio. Photo Wilma Yoder/Columbus and Franklin County Metro Parks.