

Brownfields and the Next Generation of American Manufacturing

Helping Communities and Manufacturers Reclaim Contaminated Properties for Advanced Manufacturing

As the U.S. Environmental Protection Agency's (EPA) Brownfields Program celebrates its 20th anniversary in 2015, EPA is launching a handful of initiatives in 2015-2016 to spark the *Next Generation of Brownfields Revitalization*. This includes launching the *Next Generation of American Manufacturing on Brownfields Initiative* to help local communities and

manufacturers return brownfields to productive use as centers for advanced manufacturing, technology production, and "maker-movement" innovation.

In many places, the legacy of America's manufacturing past is a source of current brownfield challenges. Over the last few decades, many communities have experienced a decline in manufacturing and a shift in production practices, littering our neighborhoods with abandoned factories and burdening cities and towns with the impacts of contamination from past industrial activities.

The good news is that American manufacturing has been resurging since 2010. Manufacturing is growing twice as fast as the overall economy, companies are increasing production, and 750,000 new, high-paying jobs have been added in the past five years. The manufacturing sector is a driver of American innovation, exports, and spinoff economic benefits. Existing factories are expanding, new plants are opening, companies are "reshoring," and innovative maker-movement approaches are helping create collaborative workspaces, innovation districts, and hi-tech hubs in many communities.

New and expanded manufacturing businesses can establish themselves on former manufacturing sites, including many of the industrial brownfields found throughout the American landscape. Legacy manufacturing sites often are prime spots for new production because they usually are centrally located on or near existing infrastructure (such as roads, rail lines, and rivers), and these locations generally are close to skilled labor, research and development centers, academic and civic institutions, and other manufacturing clusters. On the other hand, when new manufacturing facilities are not located on brownfields, they often are built on greenfields, farmland, and

In 2015, EPA convened a group of brownfields stakeholders from state and local governments, community groups, nonprofits, academia, the private sector, and philanthropy to identify issues and challenges affecting communities impacted by brownfields. This effort culminated in the April 16, 2015, Forum for Action, which brought together leading organizations and stakeholders to help EPA's Office of Brownfields and Land Revitalization (OBLR) develop an agenda for action that will foster the next generation of brownfields and community revitalization.

Participants agreed that brownfields provide an excellent opportunity for the development and expansion of advanced manufacturing, if these projects can be conducted in ways that consider and protect public health and quality of life in surrounding neighborhoods. To promote innovative manufacturing projects on brownfields, in 2015-2016, EPA will:

- Launch the "Manufacturing One-Stop" initiative to help EPA program offices develop coordinated approaches to promoting the redevelopment of manufacturing on brownfields.
- Increase federal interagency coordination to support manufacturing growth on brownfields through the IMCP and E3 initiatives.
- Convene a collaborative effort with manufacturing groups to develop a *Toolkit for Manufacturing Innovation on Brownfields*.

open space far outside cities, which can lead to negative environmental and community impacts. Because legacy manufacturing sites may have serious challenges, including potential contamination, obsolete structures, and outdated or deteriorating infrastructure, the public sector may have to go further to support the redevelopment of these sites.

Effective brownfields and community revitalization tools can be important to the productive reuse of these former manufacturing sites.

EPA's Office of Brownfield and Land Revitalization (OBLR) seeks to foster the next generation of American manufacturing by collaborating with localities and the private sector to promote the redevelopment of brownfields for new manufacturing. EPA will encourage the use of available liability relief tools, risk-based corrective action approaches, and area-wide planning strategies and will foster interagency and intergovernmental coordination to support reuse of brownfields for manufacturing. The Agency is committed to developing new manufacturing in ways that promote environmental justice and public health, and that involve transparent interaction among regulators, the private sector, and communities. To promote the next generation of manufacturing on brownfields, EPA will:

(1) Coordinate EPA Programs to Support Manufacturing Projects on Brownfields:

Repurposing a brownfield for new manufacturing often involves addressing a variety of environmental issues including contamination, demolition waste, water discharges, stormwater management, air quality issues, RCRA permitting, and other issues. In 2015-16, EPA's Office of Solid Waste and Emergency Response (OSWER) will launch the "Manufacturing One-Stop" initiative to engage relevant EPA program offices in discussions about how to streamline decisions, implement Agency-wide process improvements, and provide collaborative support for the reuse of brownfields for manufacturing projects.

(2) Boost Interagency Coordination to Support American Manufacturing:

EPA already participates in interagency efforts to boost manufacturing, including the six-agency
Economy—Energy—Environment (E3) Initiative, which helps manufacturers deploy clean, energy-saving, and costsaving measures at their facilities. EPA also supports the "Investing in Manufacturing Communities Partnership"
(IMCP), which is coordinated by the U.S. Economic Development Administration. IMCP brings together 12 federal
agencies to provide coordinated, interagency support and funding to 24 designated manufacturing communities across
the nation. EPA will continue to support E3 and the IMCP by providing technical assistance to help participating parties
resolve brownfield and contamination issues that may be hindering manufacturing investment and expansion efforts.
EPA also will provide special consideration to brownfield grant applicants that plan to reuse brownfields for advanced
manufacturing and maker-movement initiatives, as well as for applicants engaged in the IMCP and E3 initiatives.

(3) Collaborate on Best Practices for Manufacturing on Brownfields:

OBLR will collaborate with organizations dedicated to boosting manufacturing communities to identify best practices for addressing brownfields issues and promoting the development of manufacturing on these sites. Working with groups such as the Manufacturing Alliance of Communities, the Urban Manufacturing Alliance, and the Manufacturing Extension Partnership National Network, EPA will hold a series of conference calls and a culminating roundtable meeting to identify ways to promote the expansion of appropriate manufacturing projects on brownfields. EPA will develop a *Toolkit for Manufacturing Innovation on Brownfields* in 2016 that will showcase effective strategies and best practices for manufacturing redevelopment on brownfields.