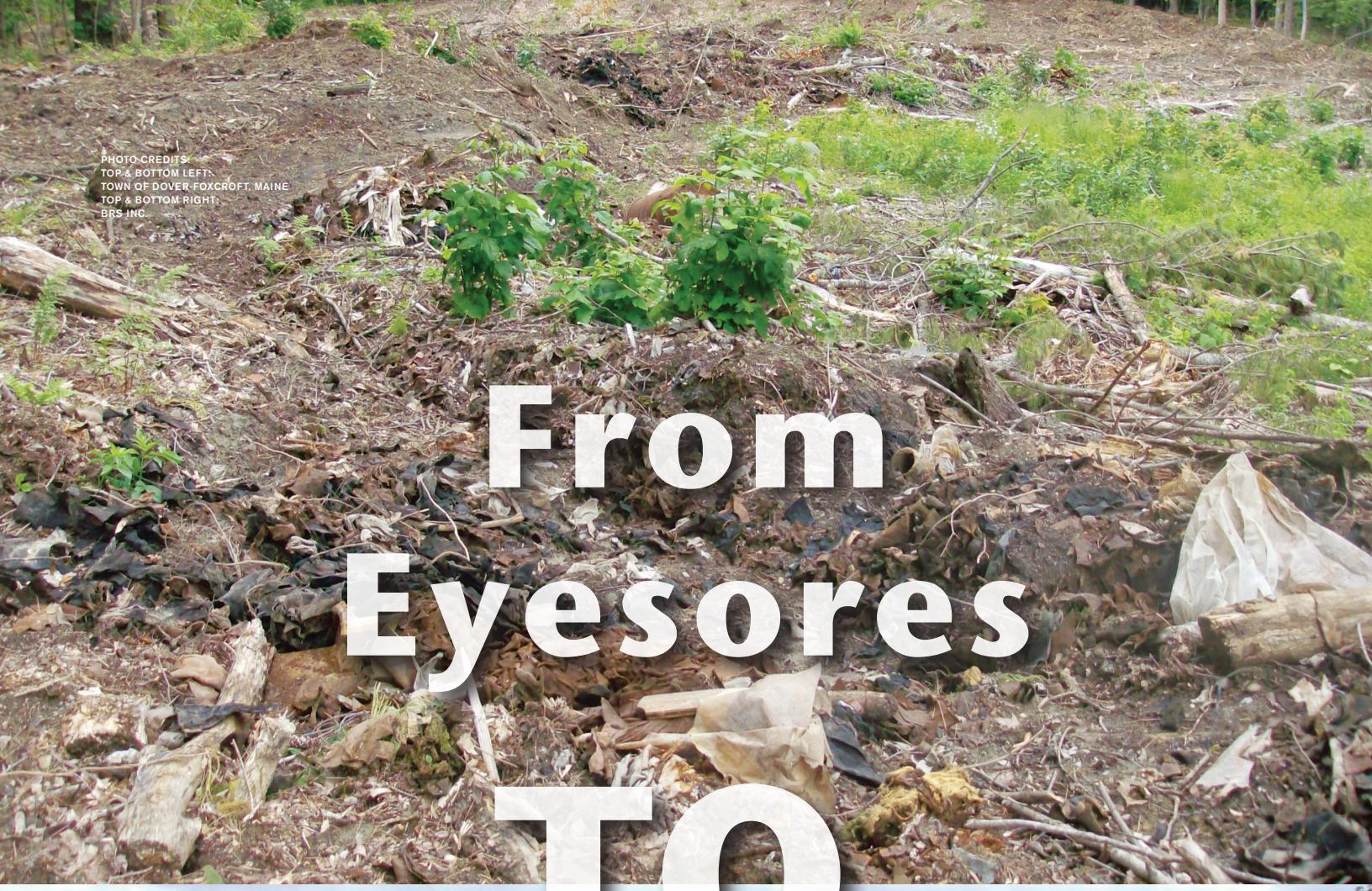


PHOTO CREDITS:
TOP & BOTTOM LEFT:
TOWN OF DOVER-FOXCROFT, MAINE
TOP & BOTTOM RIGHT:
BRS INC.

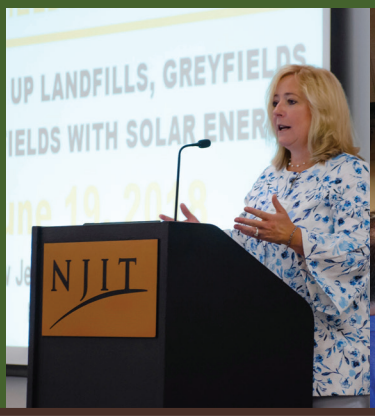
From Eyesores TO Community Assets:

NJIT's New Jersey Innovation Institute Brownfields Program

TOP LEFT: The Maine Leathers Tannery site prior to cleanup. BOTTOM LEFT: The Maine Leathers Tannery site post-cleanup. TOP RIGHT: The Harrison Avenue Landfill in Camden, N.J. pre-cleanup. BOTTOM RIGHT: The Harrison Avenue Landfill in Camden, N.J. is now the site of the Salvation Army Ray & Joan Kroc Corps Community Center.

The U.S. Environmental Protection Agency (EPA) defines brownfield sites as 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. The exact number of brownfield sites in the United States is unknown; however, the generally accepted estimate is that there are more than 500,000 sites. These sites range in size from very small parcels of less than an acre that could have occupied a former gasoline station or dry cleaner to sites of several hundred or thousand acres that could have accommodated a former steel mill or military installation. Brownfield sites are distributed throughout the country in rural, suburban, and urban communities, but major concentrations are in the Northeast and rust belt of the Midwest, where much of the nation's heavy industrial and manufacturing activity was historically based.

Many communities face numerous challenges and obstacles when attempting to clean up and redevelop their brownfield sites. That's where NJIT's New Jersey Innovation Institute (NJII) comes in. The multi-million dollar, robust and multi-faceted Brownfields Program run by NJII is focused on assisting communities with advancing their sites through the planning, assessment, cleanup and redevelopment processes, as well as providing educational and engagement forums centered on brownfields and brownfields-related issues. Its multidisciplinary team of environmental scientists, planners and engineers have extensive experience in the areas of government, industry, consulting and academic research. The team has spent the past several years working with groups – from states, to towns, to nonprofit organizations – in over 20 states throughout the East Coast. The technical assistance provided by NJII's brownfields team ranges from providing guidance on how to secure EPA funding, how to navigate the regulatory process, and how to decipher technical documents such as site characterization results; to creating community specific brownfields strategic plans, assets and needs studies, and redevelopment visions.





The type of contamination problems at brownfield sites also varies widely. These may include: asbestos; leaking underground storage tanks that generally cause petroleum contamination; and soil and water contamination caused by the discharge or dumping of organic and inorganic chemicals such as petrochemicals, solvents, heavy metals and lead. Not all brownfield sites are environmentally contaminated; some sites are merely perceived to be contaminated, and that perception inhibits their reuse. Brownfield sites usually contain moderate to low levels of contamination. They usually do not represent the type and level of contamination problems dealt with under Federal and State Superfund programs.

Whether contaminated or not, these sites are a blight to those communities, many of them home to vulnerable populations, in which they are located, contributing to disinvestment, economic decline, depressed property values, access to natural resources, and more.

BROWNFIELDS AS OPPORTUNITIES

Several steps are involved in determining the potential for and extent of contamination of a site. These include: coordinating with the pertinent regulatory agencies, retaining the services of a consultant to carry out the site investigations, and conducting the necessary investigations. There are numerous economic, environmental and social benefits that a community can expect upon the cleanup and redevelopment of brownfields sites. Examples of economic benefits include (but are not limited to) an increase in local tax base and new job growth. There are numerous tax incentives from both state and local governments available for brownfields projects. Environmental benefits include reuse of existing infrastructure, development pressure taken off undeveloped land (greenfields), prevention of sprawl, and reduced natural habitat destruction. Social benefits include alleviation of community fears of health and safety hazards and creation of community assets such as parks and housing. Up to 33% of assessments conducted with EPA brownfields grants reveal that no cleanup was necessary and that the site was ready for development. This quick reuse is good for the developer, the local government who has been losing tax revenue, and the local community who has been living with all the ills associated with a potentially hazardous blighted site within their neighborhood.

Heading the brownfields team is Colette Santasieri ’89, ’12, executive director of policy and planning innovation for civil infrastructure and environment at NJII. Santasieri has more than 30 years of public and private sector environmental and civil engineering experience. She has served as principal investigator and project manager for applied research and planning and engineering projects involving strategic planning; transportation planning; brownfields; transit-oriented development; port-city relationships, and NEPA compliance. Santasieri is the leader of NJII’s Civil Infrastructure and Environment iLab. In 2017, she received an Alumni Achievement Award from the NJIT Alumni Association. She earned a Ph.D. in urban systems and a master’s degree in civil engineering from NJIT and a

CATALYZING ECONOMIC DEVELOPMENT: THE CITY OF CAMDEN, NEW JERSEY

Economic development is a major focus of the Camden Redevelopment Agency (CRA). Recognizing that brownfield sites present an opportunity to catalyze economic development, NJII’s brownfields team developed a way for CRA to focus its efforts on sites with the greatest potential by creating a site prioritization process. Evaluation criteria largely based on existing conditions were developed and applied to each of 27 identified brownfield sites in order to prioritize the sites and identify which had a higher potential for economic redevelopment and revenue generation. A determination of potential redevelopment uses was made for each site, ballpark remedial cost estimates were created, and potential funding sources for that remediation were identified. All of this information was then used to create a Brownfields Redevelopment Strategic Plan that included a list of prioritized sites in order of potential for economic redevelopment. This Plan has given the City of Camden a solid base in which to pursue the revitalization of economically challenged communities within the city and the potential to realize many of the goals outlined in its master and various neighborhood redevelopment plans.

“Colette and her amazing staff provided essential technical support to the CRA and the City of Camden in developing our Brownfields Redevelopment Strategic Plan,” said James Harveson, Director of Economic Development, CRA. “The Plan provides us with a straightforward vehicle by which we can communicate our brownfields redevelopment priorities to our stakeholders and funders, based upon rational criteria. As a result, of the 27 sites identified in the Plan, nine have either been remediated and redeveloped or are in the process. To a large degree, we could not have made this progress without the level of focus provided by NJII.”

LEFT TO RIGHT:
1. Colette Santasieri, NJII's Executive Director, Policy and Planning Innovation for Civil Infrastructure and Environment, welcomed attendees to NJII-hosted Brightfields 2018, a national event focused on solar development on brownfield sites, in June. 2. Elizabeth Limbrick (standing, at left) with community members at a brownfields workshop in Richmond, Va. 3. Sean Vroom (at right) giving a tour of the High Line, a rail line converted into a park, to a community brownfields advisory committee. 4. Gary White (at right), project manager, at the 2017 Brownfields Conference

"WE SEE BROWNFIELDS AS OPPORTUNITIES, AND WE HELP THE COMMUNITY ENVISION HOW THAT SITE FITS WITHIN THE CONTEXT OF THAT COMMUNITY, AND HOW IT CAN BE TRANSFORMED FROM AN EYESORE TO A COMMUNITY ASSET."

- Colette Santasieri '89, '12

NOT JUST AN URBAN ISSUE: THE TOWN OF DOVER-FOXCROFT, MAINE

Brownfields are not just an urban issue. Rural communities are also dotted with brownfield sites and face unique challenges in redeveloping these sites into community assets. The NJII brownfields team assisted the Town of Dover-Foxcroft, Maine, in building community consensus for the redevelopment of a 45-acre site that once held a former woolen mill (1829-1953) and the Maine Leathers Tannery (1955-1975). The site's Environmental Assessment began in the 1990s and the site's remediation began in 2012, but the ultimate reuse of the site had not been determined. The NJII brownfields team developed a community engagement framework and then led workshops with the community's core stakeholders and public. A community consensus was reached for the short-term redevelopment goals, uses and activities for the site, as well as potential long-term site uses and activities.

Dover-Foxcroft recognized that while it had a goal of cleaning up a contaminated site and establishing a recreational area, it didn't know exactly how the area should be redeveloped. Working with the NJII staff, the town was able to hold a charrette with multiple public meetings to understand what would be most favorable in terms of a recreational area and be highly utilized by the public. This forum was also a chance to talk about the nature of the task of cleaning up the site and the changes to expect in that area as a result of cleaning up the site, i.e., more open space, hiking trails resulting from remediation activities, and better views of the river. The charrette process allowed the town an opportunity to incorporate the vision that was articulated by the public into the brownfields remediation process.

"We feel we have a much better and more highly utilized area because of our work in the charrette process and the technical assistance provided by NJII," said Jack Clukey, Town Manager, Dover-Foxcroft. "Working with NJII staff has been a wonderful and beneficial experience for the Town of Dover-Foxcroft. We would not have had the outcomes with our project had we not worked with them. We would enthusiastically recommend that other communities work with NJII in similar ways so they can maximize the outcomes of projects."

bachelor's degree in environmental planning and design from Rutgers University. These diverse yet complementary degrees, coupled with her experience, provide her with a unique and well-rounded perspective in addressing the challenges and opportunities facing governments, regions and cities in their efforts to be sustainable and resilient.

"The brownfields redevelopment process can be long and complicated," said Santasieri. "We provide assistance at all different times during the process depending on when the community needs us to get engaged and sometimes we're involved in every step depending on the challenges being faced by the community. Our assistance is tailored to meet the community's needs. Because we have a multidisciplinary staff of professionals with experience in not only the technical aspects of brownfields cleanups, but also in various other disciplines such as urban, environmental, and transportation planning, we can help communities see beyond the contamination. We see brownfields as opportunities, and we help the community envision how that site fits within the context of that community, and how it can be transformed from an eyesore to a community asset."

"Sometimes it's simply laying out what that process is," added Sean Vroom, director, Policy and Planning Innovation for Civil Infrastructure and Environment. "A lot of our clients are nonprofit community organizations and smaller rural communities that don't know the first thing about brownfields or how to go about cleaning them up and redeveloping them, so we will design a road map with all of the steps necessary to get the job done."

BUILDING COMMUNITY CAPACITY

Another aspect of NJII's brownfields program involves creating educational and engagement opportunities centered on brownfields and brownfields-related issues. "We speak at conferences and seminars throughout the country on many topics including transforming brownfield sites into urban agriculture, and turning brownfields into healthfields," said Elizabeth Limbrick, LSRP, PG, NJII's project manager. "We also collaborate with many state environmental and economic development departments and professional organizations in planning the content and selecting the speakers for their conferences."

"We also design and hold brownfields workshops and bootcamps on topics such as: Brownfields 101; creative placemaking; and green stormwater infrastructure," said Gary White, project manager. "Our aim is to provide tools and build community capacity, helping to transform a site that can be a catalyst for positive changes in a community," added Vroom.

The team has received positive feedback on their educational forums, including the "Brownfields for Bankers" seminar presented in Vermont.

"There was more content in today's (three-hour) presentation than we usually see in a full day's seminar," said Terry Martin, vice president of Mascoma Savings Bank. "Excellent, well-presented and organized, and VERY professional." ■

Author: Christina Crovetto is editor of NJIT Magazine.