

# **The Role of the U.S. Army Corps of Engineers in Brownfield Redevelopment**

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## **Northeast-Midwest Institute**



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## **Executive Summary**

Since the mid-1990s, the U.S. Army Corps of Engineers has collaborated with federal, state, local, and nonprofit agencies in brownfield redevelopment. Numerous examples illustrate the advantages that the Corps' efforts provide, from financial assistance to technical expertise. However, several legal, procedural, and financial barriers can inhibit the Corps' involvement, even when project costs could be reduced by leveraging ongoing Corps activities.

The Corps provides comprehensive planning, design, technical, and construction and engineering management support to the Army and the nation. Within the scope of this mission, the Corps supports community brownfield redevelopment efforts through its specific, Congressionally authorized water-resource related projects or by way of reimbursable engineering activities. The Corps offers expertise in flood control, dredging, and environmental restoration, collaborating with other federal agencies, state and local governments, and community and civic organizations.

Unlike other federal agencies, such as the U.S. Environmental Protection Agency (EPA) or the U.S. Department of Housing and Urban Development (HUD), the Corps has no specific authority for brownfield assessment, cleanup, or redevelopment. Instead, the Corps provides support for brownfield projects under related authorities involving civil works and water resources, which emanate from the Corps' Continuing Authorities Program, Support for Others Program, and Planning Assistance to States. In addition, the Corps may contribute to brownfield redevelopment through its General Investigations projects involving larger geographical areas, which must be specifically authorized by Congress.

Because of project cost-share and reimbursement requirements, all of the Corps' work on brownfield projects involves partnerships with other federal agencies, nonprofit organizations, and state and local governments. The Corps facilitates such partnerships through several formal agreements that clarify the participants' missions and roles. For example, as part of the Interagency Working Group on Brownfields, the Corps participates in the Brownfields Showcase Communities Initiative to coordinate and streamline federal agency cleanup and redevelopment efforts in selected communities. The Corps also works under memorandums of understanding with U.S. EPA and HUD on specific redevelopment projects.

## **Linking Corps Activities with Brownfield Sites**

The Corps' brownfield work can evolve indirectly from ongoing dredging or flood mitigation projects; result from direct overtures between Corps staff and local officials; or emanate from the Brownfields Showcase Communities Initiative. Some examples of the Corps' brownfield work include:

**St. Louis, Missouri, and East St. Louis, Illinois:** In this Brownfield Showcase Community, a Corps employee serves as the federal coordinator under the Intergovernmental Personnel Act (IPA) – the person charged with providing a consistent point of contact for the federal agencies involved in the community brownfield projects. In addition, the Corps supported a major master-planning initiative in East St. Louis by conducting the first phase of a riverfront analysis and contributing \$250,000 under the Planning Assistance for States Program. The Corps also is assisting in controlling combined sewer overflows in the city through a \$1-

million infrastructure improvement project, which is critical to the successful redevelopment of key brownfield properties downtown.

**Chicago, Illinois:** The City of Chicago and the Corps recently completed aquatic ecosystem restoration projects at four sites along the Chicago River. At two of the sites – a former industrial-scale printing operation and a closed Army Reserve base – rehabilitation of the riverbanks has facilitated and enhanced brownfield redevelopment. Under Section 206 authority for the restoration and protection of aquatic ecosystems, the Corps' Chicago district office and the city rebuilt the riverbanks in a manner that accomplished the twin goals of improving habitat and adding site improvements that were tailored to the specific needs of the brownfield site redevelopers. The Corps has contributed an estimated \$3.7 million to the projects.

**Kansas City, Kansas and Missouri:** By mitigating the potential for catastrophic flood events, the Corps has increased the economic viability of brownfield redevelopment in Kansas City, Missouri and Kansas. The Corps has partnered on multiple local flood reduction studies and construction projects that have helped to revitalize contaminated brownfields. In addition, for three years a member of the Corps' Kansas City District staff served as the city's brownfield showcase community IPA. Through the showcase initiative, the Corps contributed to the design of the bi-state Riverfront Heritage Trail, a nine-mile greenspace trail system that will link up to nine brownfield sites and enhance their redevelopment potential through security, recreational opportunities, aesthetic value, and pedestrian and bike access. The Corps also is building an ecological restoration area on 15 acres adjacent to the city's redeveloped Riverfront West site.

**Northhampton County, Virginia:** In Northhampton County at the southern tip of Virginia's Eastern Shore, dredged material from a Corps placement site is being used to cap an active municipal landfill at a brownfield site – a “win-win” arrangement for all concerned. Under its operations and maintenance program, the Corps dredges the federal navigation channel near the Oyster Harbor approximately every eight years, and places the dredged material on a site constructed on county-provided land near the brownfield. The dredged material placement site is nearing capacity, and so additional capacity is needed for long-term dredging needs. At the same time, a county-approved master plan for the county calls for closing the landfill on the site when it substantially reaches capacity in 2003, and converting it to recreational use with room for windmills and sustainable technology demonstration projects. The Corps' dredged material provides a ready and low-cost option for capping the landfill.

**Coralville, Iowa:** In 1999, representatives of the Corps' Rock Island District began work with Coralville officials to identify assistance they could provide at the city's 200-acre, waterfront brownfield site. Based on these discussions, the Rock Island District prepared a cost-share agreement and scope of work. The Corps obtained congressional approval for the project under the Section 22 General Investigations Program that authorizes assistance to states, local governments, and other nonfederal entities in preparing comprehensive plans for the development, use, and conservation of water and related land resources. In addition, the Corps used its Planning Assistance for States program to work with the city and a contractor on developing a comprehensive land-use plan, covering half of the study's \$160,000-cost.

**Seattle, Washington:** At the request of the brownfield program of King County and Seattle, Washington, the Corps has collaborated on a technology screening study to determine relevant cleanup criteria and appropriate treatment technologies for groundwater at contaminated

sites in the Duwamish River's industrial corridor. In addition, the Corps provided assistance when King County asked EPA for a targeted brownfield site assessment at an abandoned chrome plating plant in the corridor. EPA hired the Corps to do a report, resulting in a very successful partnership among the three entities that was the first of its kind and met a challenge to achieve a "lean" project that increased efficiency and reduced costs.

## **Assessing the Corps Role**

Many examples illustrate the benefits of involving the Corps in federal, state, and local brownfield redevelopment projects. Particularly for waterfront brownfields, the Corps' experience has obvious linkages that can be leveraged to reduce duplication of effort and produce economies of scale.

**Funding:** The Corps can contribute a significant amount of funding to brownfield projects, some of which finances construction activity that grants from other federal agencies, such as EPA, do not cover.

**Expertise:** The Corps' traditional activities, such as ecosystem restoration and rebuilding infrastructure, require many of the same areas of expertise that brownfields demand.

**History:** In many cities engaged in brownfield redevelopment, the Corps already has worked for decades on adjacent or related water projects and is familiar not only with local hydrology and geography, but also with local contractors, elected officials, and community leaders.

**Beneficial Reuse:** Ongoing Corps waterway projects can have a complementary relationship with brownfield projects: the waterway projects need to store and dispose of dredge spoils, and the brownfield projects need to cap and grade land areas.

Notwithstanding the advantages of the Corps' participation in brownfield projects, several barriers to Corps involvement persist.

**Costs:** Because most Corps projects are funded on a cost-share basis, some communities with limited resources cannot afford them. In addition, federal law requires the Corps to receive project funding before the work is performed; the Corps may accept partial funding, but work must stop as soon as funding is depleted. Finally, the cost of the Corps' services can exceed the cost of a private contractor, especially if the Corps subcontracts for all or part of the services it provides. Therefore, Corps partners must weigh the costs of working with the Corps against the benefits of both the Corps' expertise and its financial contribution to the project.

**Congressional Authorization:** Many Corps projects require specific Congressional authorization and appropriations to proceed, which introduces uncertainty into the process. For example, in the 107<sup>th</sup> Congress, controversy over Corps reform prevented WRDA reauthorization and thus precluded funding for some Corps projects that would benefit brownfields.

**Brownfield Authority:** The Corps has no specific authority to work on brownfield projects. Therefore, even in areas where the Corps has performed extensive work under related authorities, it may be unable to provide direct assistance at brownfield sites. Moreover, the Thomas amendment's requirements, designed to prevent the Corps from competing with private contractors, can prevent the Corps from providing services to some small communities that have no access to private-sector technical and management assistance.

**Interagency Agreements:** The Corps often works on brownfield projects with the assistance of other agencies such as EPA, which either directly fund the Corps' activities or provide matching funds for a community's share of project costs. These arrangements create a cost in time and effort for both sides. The Corps must negotiate funding from other agencies in order to work, and the other agencies must develop a memorandum of agreement with the Corps – which can be at least as labor-intensive as issuing a request for proposals from contractors.

**Outreach:** Unlike other federal agencies, the Corps does not conduct outreach to market its services, solicit grant proposals, or identify candidates for assistance on a competitive basis.

## **Facilitating Corps Involvement**

For many brownfield projects – especially those adjacent to ongoing Corps work – the Corps offers qualified engineering staff, many with years of experience working in the very communities in need of technical assistance for brownfields. Yet even when brownfield projects actually complement and overlap with ongoing Corps work, the Corps' capacity to advance brownfield redevelopment may be squandered. In light of the potential efficiencies and cost savings that the Corps' assistance in brownfields can provide, limited measures to facilitate its brownfield role warrant consideration.

Specific authorization for the Corps to undertake brownfield work would curtail the time-consuming exercise of identifying a related Corps authority. Particularly in brownfield showcase communities and other areas where multiple federal agencies are collaborating, it would vastly simplify Corps participation if it were authorized to act as an equal partner. As a safeguard against “mission creep,” the authority could be limited to brownfields where the Corps already has other studies or construction projects underway.

**Program funding** would enable the Corps to assist in brownfield projects without negotiating for grants from other federal agencies. Such resources would be most beneficial when the Corps already has invested time and effort at a brownfield site and been forced to cut short its involvement for lack of continued funding. Moreover, a provision to exempt certain communities with limited resources from cost-share requirements would allow the Corps to provide assistance where it is needed most.

## **A Brownfield Framework: Corps Activities, Authorities, and Agreements**

The Corps initiated its brownfield program shortly after Corps representatives attended the first national brownfields conference in 1996. The conference underscored numerous opportunities for the Corps to lend on-the-ground technical expertise to the brownfield assessment, cleanup, and redevelopment efforts of local communities and other federal and state agencies.

Since then the Corps has supported the cleanup and reuse of numerous brownfield sites, through technical assistance as well as related activities that indirectly enhance redevelopment opportunities. The Corps' role in brownfields exemplifies the federal response to significant national trends of the 1990s. First, the perception of environmental issues shifted from one of isolated issues associated with single media (air, water, and soil) to one of complex, multi-media systems that are best addressed in a holistic manner. Second, increasingly the authority for implementing many federal programs was transferred to state and local jurisdictions. As a result, federal agencies have forged partnerships with the Corps along with state, private, and nonprofit entities to foster integrated approaches to environmental challenges and leverage diminished federal authority and resources.

The Corps conducts a variety of activities at brownfield sites under specific authorities, often in the context of federal interagency agreements. This report describes this framework and recent examples of Corps projects that advanced or complemented brownfield redevelopment. Based on these examples, the Northeast-Midwest Institute has drawn conclusions about the Corps' role in brownfield reuse and suggests ways for Congress to facilitate the use of the Corps' resources and expertise.

### **Corps Activities**

The U.S. Army Corps of Engineers provides comprehensive planning, design, technical, and construction and engineering management support to the Army and the nation. The Corps supports community brownfield redevelopment efforts through its specific, Congressionally authorized water-resource related projects or by way of reimbursable engineering activities. Focusing on communities selected by the U.S. Environmental Protection Agency (EPA) to receive technical and financial support for brownfield redevelopment, the Corps collaborates on water resource problems and links civil works projects with local economic, environmental, and social goals.

The Corps contributes to revitalizing underused and abandoned industrial areas through its expertise in flood control, dredging, and environmental restoration. In coordination with other federal agencies, state and local governments, and community and civic organizations, the Corps can collaborate on:

- comprehensive management plans;
- preliminary brownfield assessments;
- ecosystem restoration studies and expanded projects to enhance revitalization;
- flood control and water supply systems;

- protection of and redevelopment of degraded wetlands;
- site assessment and cleanup of toxic waste;
- related real estate services, including appraisal, management, and disposal; and
- technical transfer of new technologies that concern ecosystem restoration and construction.

The Corps undertakes these activities with a staff of approximately 36,000 biologists, engineers, geologists, hydrologists, natural resource managers, and other professionals who are distributed among 38 districts in eight divisions: the Great Lakes and Ohio River; Mississippi Valley; North Atlantic; Northwestern; Pacific Ocean; South Atlantic; South Pacific; and Southwestern. Because these divisions and their districts follow watershed boundaries, a state may be divided among more than one.

## **Corps Authorities**

Unlike other federal agencies such as the U.S. Environmental Protection Agency (EPA) or the U.S. Department of Housing and Urban Development (HUD), the U.S. Army Corps of Engineers has no specific authority for brownfield assessment, cleanup, or redevelopment. Instead, the Corps provides support for brownfield projects under related authorities involving civil works and water resources. These authorities emanate from the Corps' Continuing Authorities Program, Support for Others Program, and Planning Assistance to States. In addition, the Corps may contribute to brownfield redevelopment through its General Investigations projects involving larger geographical areas, which must be specifically authorized by Congress.

**Continuing Authorities Program (CAP).** Through CAP, the Corps can assist communities and non-federal entities with planning and construction under nine authorities for:

- emergency streambank and shoreline protection;
- flood control;
- snagging and clearing for flood control;
- navigation;
- beach erosion;
- mitigation of shore damage due to navigation works;
- project modifications for improvements to the environment;
- ecosystem restoration projects in connection with dredging; and
- aquatic ecosystem restoration.

In many cases brownfield assessment work that is related to these Corps projects can be cost-shared under CAP. In others, redevelopment of a brownfield site is enhanced or made more economically viable through related Corps activities, such as flood control, in the area. Projects must have non-federal sponsors, generally with a cost-share of 65 percent federal and 35 percent non-federal. The federal share may not exceed \$5 million per project.

### **Summary of the Continuing Authorities**

<b>Project and Authority</b>	<b>Federal Study Limit</b>	<b>Cost Share Federal/Non-Fed Percent</b>	<b>Federal Project Limit</b>
<b>Flood Control - Section 205, 1948 Flood Control Act</b> Provides for local protection from flooding through construction or improvement of flood control works such as levees, channels, and dams. Non-structural alternatives may include measures such as installing flood warning systems, raising and/or flood-proofing of structures, and relocating flood-prone facilities.	\$100,000	65 / 35	\$5,000,000
<b>Emergency Streambank and Shoreline Protection - Section 14, 1946 Flood Control Act</b> Prevents erosion damages to highways, bridge approaches, public works, and other nonprofit public facilities through emergency construction or repair of streambank and shoreline protection works.	\$40,000	65 / 35	\$1,000,000
<b>Snagging and Clearing for Flood Control - Section 208, 1954 Flood Control Act</b> Provides for local protection from flooding by channel clearing and excavation, with limited embankment construction using materials from the clearing operation only.	\$40,000	65 / 35	\$500,000
<b>Small Navigation Projects - Section 107, 1960 River and Harbor Act</b> Provides improvements to navigation including dredging of channels, widening of turning basins, and construction of navigation aids.	\$100,000	80 / 20	\$4,000,000
<b>Small Hurricane and Storm Damage Reduction Projects (Section 103) - Section 103, 1962 River and Harbor Act</b> Provides for protection or restoration of public shorelines through construction of revetments, groins, and jetties, and may also include periodic sand replenishment.	\$100,000	65 / 35	\$2,000,000
<b>Mitigation of Shore Damage Attributable to Navigation Works - Section 111, 1968 River and Harbor Act</b> Provides for the prevention or mitigation of erosion damages to public or privately owned coastal shores when these damages are a result of a federal navigation project. It is not intended to restore shorelines to historic dimensions, but only to reduce erosion to the level that would have existed without the construction of a federal navigation project.	\$100,000	65 / 35 (May not be required)	\$2,000,000
<b>Project Modifications for Improvements to the Environment - Section 1135, 1986 Water Resources Development Act</b> Provides for ecosystem restoration by modifying Corps structures or operation of Corps structures or implementing restoration features when the construction of a Corps project has contributed to degradation of environmental quality.	\$10,000	75 / 25	\$5,000,000
<b>Ecosystem Restoration Projects in Connection with Dredging - Section 204, 1992 Water Resources Development Act</b> Provides for protection, restoration, and creation of aquatic and wetland habitats in connection with construction and maintenance dredging of an authorized project.	\$10,000	75 / 25	N/A
<b>Aquatic Ecosystem Restoration - Section 206, 1996 Water Resources Development Act</b> Provides for the restoration and protection of aquatic ecosystems if the project will improve the environment and is in the public interest.	\$10,000	65 / 35	\$5,000,000

SOURCE: *Mobile Water Resources Customers Guide*, U.S. Army Corps of Engineers,  
<http://www.sam.usace.army.mil/pd/custguide/contauth1.htm>

**Support for Others (SFO):** SFO enables the Corps to provide technical, engineering, and project management expertise on a reimbursable basis to other federal agencies, tribes, states, municipalities, and international governments. Through SFO, the Corps assists with site assessment, environmental studies, redevelopment planning, real estate activities, cleanup oversight, and other aspects of brownfield projects.

The Corps' brownfields work under SFO may be limited by an amendment to the Water Resources Development Act of 2000 (WRDA). Introduced by Senator Craig Thomas and known as the Thomas amendment, the measure was enacted in response to concerns that the Corps was competing with the private sector for business opportunities. The amendment modified the procedure for the Corps to accept requests for services under the authority of the Intergovernmental Cooperation Act (ICA), effectively raising the bar for projects to qualify for Corps support. It requires that any new work for state and local governments under ICA authorization must obtain Corps headquarters approval, which in itself can be a daunting process for small communities. For approval, the customer must certify that the requested services are not reasonably and quickly available through ordinary business channels, and the Corps must certify that it is uniquely equipped to perform these services. These certifications must be supported by clear and convincing facts.

**Planning Assistance to States (PAS):** Under PAS, the Corps helps local governments, agencies, and tribes prepare comprehensive plans for the development, use, and conservation of water and related land resources, which may encompass brownfield sites. The program also funds site-specific projects such as wetland assessments, environmental impact statements, and hydraulic or other preliminary engineering evaluations. The required 50-percent non-federal cost share may be composed of both funds and in-kind contributions.

**General Investigations Studies and Projects (GI):** GI projects generally cover large geographic areas and involve multiple water resource issues. These basinwide projects include feasibility studies, which require a 50 percent-50 percent cost share with a non-federal sponsor, and construction projects, which require a 65 percent-35 percent cost share. Although GI projects may encompass or affect brownfield sites, they are more difficult for communities to use because they require authorization by Congress.

## **Corps Agreements**

Because of project cost-share and reimbursement requirements, all of the Corps' work on brownfield projects involves partnerships with other federal agencies, nonprofit organizations, and state and local governments. To facilitate such partnerships, the Corps has entered into several formal agreements that clarify the participants' missions and roles.

**Brownfields Federal Partnership Action Agenda:** Announced in May 1997 and updated in 1999 and 2002, this agreement among more than 20 federal agencies supports collaboration on committing resources, dedicating programs, and forging partnerships to work with state and local governments on brownfields. The action agenda compiles a broad range of agency commitments to speed brownfield redevelopment, from making brownfields a budget priority to sharing program information with stakeholders. In addition, representatives of the federal agency partners formed the Interagency Working Group on Brownfields to identify ways to collaborate. The working group determined that unified work with specific communities

would be more effective and easily measurable than a broader approach, and as a result it launched the Brownfields Showcase Communities Initiative.

**Brownfields Showcase Communities Initiative:** The Interagency Working Group on Brownfields established the showcase communities initiative to create a model for community-based collaboration. The initiative used a competitive process for selecting communities – 28 by 2003 – to work with federal agencies in applying national programs and resources to local brownfields. Each showcase community receives a \$200,000 grant from EPA and works with at least five federal agencies. Through the showcase initiative, the federal partners place Intergovernmental Personnel Assignments (IPAs) in local communities, who coordinate and streamline federal efforts and provide a consistent point of contact for the federal agencies involved in the community brownfield projects. Many Corps employees have served as community IPAs.

The Corps' primary role in the showcase initiative is to provide technical consultation – developing comprehensive plans, reviewing and revising civil works policies, and offering planning assistance to EPA Brownfields Assessment Pilot communities. The Corps provides deed restriction services; performs market impact studies and cost-benefit analysis; shares laboratory and field research data; and carries out projects to protect, restore, or create aquatic and ecological habitat.

The Corps' cost-share requirements in some cases facilitate the kind of partnerships envisioned by the showcase initiative. The Corps is accustomed to billing work to other federal agencies and local governments, and at the community level the need to identify sources of a cost share can engender community participation and a fiscal stake in the brownfield project.

**EPA Memorandum of Understanding:** On July 2, 2002, representatives of EPA and the Corps signed a Memorandum of Understanding (MOU) to create a partnership for restoring degraded urban rivers and related resources. The MOU aims to better coordinate cleanup and restoration activities under the Clean Water Act, Superfund, the Resource Conservation and Recovery Act, and the various Water Resources Development Act authorities that govern the work of the Corps.

In the first 12 months of the agreement, EPA and the Corps will jointly select eight demonstration pilot projects to demonstrate how coordinated public-private efforts can revitalize urban communities while restoring contaminated rivers. The projects will be developed in partnership with state and local governments, tribal authorities, and private organizations, and focus on improving water quality, cleaning up contaminated sediments, and restoring human and animal habitat.

The MOU does not obligate funding, and so funding and reimbursement arrangements for each project will be established in interagency agreements between EPA and the Corps. The MOU will expire on June 30, 2004, or whenever either party seeks to terminate it.

**HUD Memorandum of Understanding:** HUD and the Corps signed an MOU in 1999 to link engineering professionals with economic development officials and specialists. HUD works with community organizations, the private sector, state and local governments, and other federal agencies to restore brownfields and thus stimulate community reinvestment. The department's

economic development programs, such as the Community Development Block Grant Program, Brownfields Economic Development Initiative (BEDI), and state Loan Guarantee Program, provide resources to revitalize blighted communities that can leverage other private and public sector investment.

Together, HUD and the Corps can jointly help communities redevelop brownfields by:

- providing access to technical assistance and resources for economic development and neighborhood revitalization;
- identifying and implementing community actions that link environmental restoration and brownfield activities with economic development and neighborhood revitalization – including integrating brownfield assessment and cleanup with economic development planning and implementation; leveraging resources for the assessment, cleanup, and redevelopment of brownfields; and coordinating implementation efforts at the local level; and
- developing and supporting brownfield redevelopment research.

The Corps provides project-specific support to brownfield projects funded by HUD. The Corps works through its district offices, which have expertise in community involvement and well-established relationships with area communities. Its technical services may be delivered through Corps personnel or through its network of private sector contacts. The partnership between the Corps and HUD can be especially beneficial to poorly funded communities, because as permitted by program requirements, communities may use their HUD funding as the non-federal cost share with the Corps or to reimburse the Corps for work.

## **Examples of Corps Brownfield Activities**

### **Assessment and Planning for Waterfront Redevelopment in Glen Cove, New York, and St. Louis, Missouri and East St. Louis, Illinois**

The Corps can offer cities the benefit of its site assessment and planning expertise, particularly where the Corps has local experience with ongoing water projects. Whether a project involves ecosystem restoration, waterfront redevelopment, or infrastructure improvements, the Corps has provided key assistance for brownfield revitalization.

**Glen Cove, New York.** Located on the north shore of Long Island, Glen Cove has ten miles of beautiful waterfront, three public beaches, 300 square acres of nature preserves, and historical mansions. However, the waterfront also includes 146 acres of brownfields and was recognized an “urban blight area” by HUD. As a brownfield showcase community, Glen Cove benefits from the involvement of federal agencies, including the Corps, teaming to advance its revitalization goals, including development of a waterfront hotel and mixed-use retail center.

The Corps has a long history in Glen Cove, which began even before the city became a showcase community. The Corps has worked in Glen Cove since 1948, performing periodic maintenance dredging in the outer portion of the federal navigation channel of Glen Cove Creek. In 2000, Congress authorized the creek’s most recent dredging, under operations and maintenance of the federal navigation channel, to address severe shoaling that interferes with commercial marine traffic in the upper portion of the creek. Since then, the Corps and EPA – which was conducting Superfund remediation on the waterfront – have discovered sediment contamination associated with the Superfund action. Dredging has stopped, pending further investigation of the contamination by the Corps and EPA.

The Corps’ brownfield work in Glen Cove focuses on identifying ecosystem restoration opportunities along the city’s waterfront, including the terminal “dog leg” of Glen Cove Creek and Mill Pond, a visual focal point of the creek. As part of its interagency agreement with EPA, the Corps conducted an area-wide characterization study of the creek’s dog leg beyond the limits of the federal channel study, evaluating contamination and sediment inputs from the adjacent brownfield sites, Mill Pond, and other sources to develop a remediation plan and identify end-use opportunities.

The Corps also played a key role in a study of infrastructure and green space improvements that will enhance the waterfront redevelopment and protect water quality. Under the Support for Others program using city funding, the Corps provided planning assistance for improving transportation access to the waterfront area and restoring the Mill Pond. This assistance helped Glen Cove to obtain \$11 million from the U.S. Department of Transportation to implement infrastructure and green space improvements.

**St. Louis, Missouri and East St. Louis, Illinois.** St. Louis, Missouri, and East St. Louis, Illinois, have undertaken the Mississippi River Corridor Brownfields Initiative, which targets a corridor along both sides of the river. The area encompasses riverfront recreational areas, business districts, industrial areas, and residential neighborhoods. For years, the Corps and EPA have worked closely with St. Louis on brownfield redevelopment in the corridor, even before the city became part of a brownfield showcase community. Today, EPA funds an

employee of the Corps to serve as the showcase community federal coordinator under the Intergovernmental Personnel Act (IPA) – the person charged with providing a consistent point of contact for the federal agencies involved in the community brownfield projects.

The Corps' most active project has been at the East St. Louis, Illinois, riverfront. In November 2001, the Corps began an analysis of 1,100 acres of riverfront as part of a major master planning initiative. The first phase of the project included determining the ownership of each property, the types of structures on each piece of land, environmental concerns, and any infrastructure running through the redevelopment area. Subsequent phases will involve community participation to develop alternative plans for the riverfront; selection of a final plan via project stakeholders; developing cost estimates for any major public infrastructure improvements required; and completing the implementation plans for the project. The project is funded under the Planning Assistance for States program, with \$250,000 from the Corps matched by the same amount from the city.

In addition, the Corps works in the East St. Louis central business district, which has severe infrastructure problems. The Corps is authorized to assist in a \$1-million infrastructure improvement project to control combined sewer overflows, under a 75 percent-25 percent cost-share arrangement with the city. The Corps' assistance is essential to making the infrastructure improvements, which in turn will be extremely important to the redevelopment of key brownfield properties downtown.

The Corps also has assisted St. Louis, Missouri, in brownfield assessment and cleanup on several key redevelopment sites. The Corps's earliest work in St. Louis began when the city passed a bond issue to address thousands of derelict buildings and enlisted the Corps' help. The Corps provided technical assistance, project management, and contract assistance for the many buildings taken over by the St. Louis Development Corporation following tax foreclosures. The Corps also helped to package contracts for demolition and site work.

Currently the Corps is working under an agreement with the Army at the St. Louis Army Ammunition Plant (SLAAP), a vacant, former small arms manufacturing facility. SLAAP was deemed "excess" by the Army in the late 1980s and officially vacated in the mid-1990. Since the facility was not part of the Base Realignment and Closure process, the city has been working in partnership with Army, the General Services Administration, and state and federal regulators to ready the site for future transfer to the private sector for redevelopment. The Corps is conducting a full environmental characterization and limited cleanup of the 18-acre site that will assist in the Early Transfer of the property from the Army's inventory to the private sector.

### **Restoring Riverbanks at Brownfields in Chicago, Illinois**

The City of Chicago, Illinois, and the Corps recently completed aquatic ecosystem restoration projects at four sites along the Chicago River. At two of the sites – a former industrial-scale printing operation and a closed Army Reserve base – rehabilitation of the riverbanks has facilitated and enhanced brownfield redevelopment.

Although the waterfront location contributed to the redevelopment potential of both brownfield sites, work to return the sites to productive use was complicated by the physical condition of the riverbanks, which were heavily eroded and choked with overgrown stands of

invasive plant species. The Chicago Department of Environment already were planning projects to improve riverbank conditions when the city requested a meeting with the Corps' Chicago district office staff. At the meeting, representatives of the Corps explained its various authorities to city officials, and they quickly identified a link between the city's planning efforts and the Corps' authority under Section 206 of the Water Resources Development Act.

Under Section 206 authority for the restoration and protection of aquatic ecosystems, the Corps' Chicago district office and the city rebuilt the riverbanks in a manner that accomplished the twin goals of improving habitat and adding site improvements that were tailored to the specific needs of the site redevelopers. The Corps has contributed an estimated \$3.7 million to the projects. At both sites, the projects cleared the existing ground cover, which failed to provide good habitat or hold soils in place, and then re-graded the bank at both sides to create a stable slope and install structures to stop erosion and sedimentation. Both sites were replanted with native species to improve terrestrial habitat and ensure a reliable ground cover would exist, even with little maintenance.

At the first site, which was redeveloped as a magnet high school, walking paths and overlooks were added to allow students and teachers access to the river for classroom projects. The second site soon will house union offices and training facilities, and includes additional contouring and grading to better integrate the building site with the riverbank. Although their built-out appearances will be quite different, both sites demonstrate how federal programs that were designed for environmental improvement can benefit brownfield redevelopment as well.

The cost to Chicago of working with the Corps probably exceeded the cost of a private contractor, due to federally-mandated feasibility studies, engineering requirements, and bidding process. However, the feasibility study showed that the ecosystem benefits still exceeded the project cost. In addition, the contribution of Corps funding to the projects reduced the amount of money the city had to provide. In fact, if the responsibility for funding the projects had been left solely to the city, the city might not have been able to take them on at all. And although the Corps' feasibility studies and bidding process required extra time, the Corps projects began early enough in the brownfield site preparation process to prevent any delays in the larger redevelopment efforts.

### **Reducing Flood Risk to Brownfield Sites in Des Moines, Iowa; Kansas City, Kansas and Missouri; and East Palo Alto, California**

The Corps' work in flood control and management can have a direct impact on brownfield redevelopment where brownfield sites lay in floodplains. For many of these sites, flood events have spread and exacerbated contamination, and ongoing flood risk discourages investment in redevelopment. Several cities have found the Corps' cooperation in flood management critical to their brownfield revitalization efforts.

**Des Moines, Iowa.** Des Moines, Iowa, is redeveloping a 300-acre area known as Riverpoint West, located just south of the central business district on the north side of the Raccoon River. Although the Corps does not work directly on the brownfield site, its extensive efforts to reduce flood risks in the surrounding watershed ultimately will make its revitalization more viable.

Riverpoint West is characterized by underused industrial parcels, deteriorated structures, and real and perceived contamination from former rail yards, printing shops, paint manufacturing, foundry operations, asphalt paving, and industrial chemical manufacturing. Spurred by a Brownfields Assessment Demonstration Pilot, the city's redevelopment plans envision a vibrant urban village with about 550 residential units, 850,000 square feet of office and retail space, and environmental and recreational improvements. The area had a history of severe flooding, but through funding from the Economic Development Administration, Des Moines has resolved its major flood risks. These improvements were needed to protect investment in the central business district and allow new investment in the deteriorating Riverpoint West area.

To address flood risks in the greater watershed beyond Riverpoint West, Des Moines has engaged in a 50 percent-50 percent cost-sharing agreement with the Corps to conduct a flood damage prevention survey of the Des Moines and Raccoon Rivers, to be completed in 2004. Authorized under the General Investigations program, the Des Moines and Raccoon Rivers Feasibility Study will cost \$2.77 million and include hydrologic and hydraulic analysis of five streams and development of alternatives along those streams to alleviate flooding. This project will lead to further protection of existing development in Riverpoint West and encourage community revitalization there.

**Kansas City, Kansas and Missouri.** In Kansas City, Missouri and Kansas, the Corps has partnered on multiple local flood reduction studies and construction projects that have helped to revitalize contaminated brownfields. By mitigating the potential for catastrophic flood events, the Corps has increased the economic viability of brownfield redevelopment. In addition, a member of the Corps' Kansas City District staff served as the city's Brownfield Showcase Community IPA from July 1999 to July 2002.

The Corps is doing flood-control channelization along 12.5 miles of the Blue River in Kansas City, Missouri, to improve flood protection and reduce blight immediately surrounding the river. The project consists of widening the channel with a combination of concrete paving, rock or stone-protected slopes and grass slopes. The floods of May 1990, July 1993, May 1995, October 1998, and June 2001 were entirely contained within the banks of the improved channel, and it has been estimated that the crest of a 100-year frequency flood event will be lowered six to eight feet within the project area. In addition, the project generates hundreds of thousands of cubic yards of dredge spoils that can be used to cap contamination on brownfield sites, create or restore natural areas for habitat enhancement, or raise site elevations where needed. More than 60,000 cubic yards of this material was used to cap and level areas in the Blue River industrial corridor.

At the city's Riverfront West site, the Corps is building an ecological restoration area on 15 acres adjacent to the riverfront park, funded through a federal cost-sharing arrangement with the city. Kansas City is contributing up to 25 percent of the project's cost of approximately \$2 million. The construction is authorized by section 1135 of the Water Resources Development Act, which allows the Corps to mitigate the adverse ecological effects of its previous flood-control activities.

The Corps also contributed to the conceptual design of the bi-state Riverfront Heritage Trail, a nine-mile bicycle, pedestrian, and greenspace trail system that will link up to nine brownfield sites. The trail area was not contaminated itself, but because it borders on the brownfields it will enhance their redevelopment potential through security, recreational opportunities, aesthetic value, and pedestrian and bike access. Kansas City funded the Corps' work through a \$130,000-EPA grant under its showcase communities project. The Corps also worked with the city to prepare an application for a Congestion Mitigation and Air Quality (CMAQ) grant from the Federal Highways Administration for the riverfront heritage trail, which resulted in an award of \$200,000 for the final design of the trail system's first segments.

**East Palo Alto, California.** East Palo Alto's brownfield efforts focus on 135 acres encompassing the Ravenswood Industrial Area and the neighboring Four Corners redevelopment area. Because the Ravenswood area has experienced severe flooding from the adjacent San Francisco Bay, flood damage prevention is a top priority. The Corps is involved in several projects that reduce flood risk, although its most ambitious flood management efforts are stalled in Congress. The Corps also is engaged in a project to ensure adequate water supply for the new Ravenswood development.

The city's strategic plan and design for the Ravenswood area includes a mixed-use development and employment center with up to 2 million square feet of commercial and high-technology offices and light manufacturing. Medium-density housing is planned nearby. However, such development will not be feasible if flood risk persists.

When the San Franciquito Creek overtopped its banks in 1998, the flood caused almost \$27 million in damage to 1,700 homes and commercial structures. After that, the area's five jurisdictions – San Mateo and Santa Clara counties and the cities of Menlo Park, Palo Alto, and East Palo Alto – formed a Joint Power Authority (JPA) to coordinate flood control and restoration. A risk-based analysis, completed in March 2000, recommended that the Corps proceed to a Section 905(b) expedited reconnaissance phase study of potential federal participation in flood control improvements along the creek. Because Congress has not authorized the study, JPA asked the Corps to initiate a section 205 study to investigate the feasibility and federal interest in a flood control project.

Even though the Corps has not obtained funding for the San Franciquito Creek study, it does regulate any work on the creek and issues the necessary permits. The Corps also is correcting problems with floodplain maps developed by the Federal Emergency Management Administration (FEMA) and maintains federal levees in the area.

A second concern for Ravenswood redevelopment is water supply. East Palo Alto pipes in water from the Sierra Mountains under a strict allocation limit. The city already has reached 98 percent of the cap, and the Ravenswood redevelopment would put the city over the top. Since the city needs alternative sources of potable water anyway, the Corps is working on a cost-share basis on the Ravenswood Water Infrastructure Study, examining the feasibility of using grey/reclaimed water, old wells (which may be contaminated), and desalinization. The work will be authorized under the Planning Assistance to States program, with funding expected in fiscal 2003. The completed study and subsequent development of an alternative water supply will remove the final obstacle to redeveloping Ravenswood.

## **Using Dredging Activity to Complement Redevelopment in Northhampton County, Virginia**

In Northhampton County at the southern tip of Virginia's Eastern Shore, dredged material from a Corps placement site is being used to cap an active municipal landfill at a brownfield site. Under a county-approved master plan for the brownfield, when this permitted solid waste disposal facility substantially reaches capacity in 2003, it will be closed and converted to recreational use with room for windmills and sustainable technology demonstration projects. At the same time, the Corps' dredged material placement site is nearing capacity and needs additional capacity for long-term dredging needs. Thus, the arrangement offers a "win-win" for all concerned.

The Corps dredges the federal navigation channel near the Oyster harbor approximately every eight years, and places the dredged material on a site constructed on county-provided land near the brownfield. The Corps will require additional capacity at the dredge placement site to accommodate dredged, beginning with the next dredging scheduled in a few years.

Prior to the last dredging in 1998, the Corps reached a long-term agreement with Northhampton County as the local sponsor, to use the dredged material to cap the active landfill. The agreement is an excellent example of the Corps' policy of promoting beneficial use of the dredged material. The Corps worked to prepare the dredged material for capping, but because its upper layer dried and formed a crust, the layers below remained too wet for removal. Under site management adopted this year, the Corps has completed a contract to excavate and stockpile the top layer so that the underlying material can dry.

The Corps' work at the Northhampton site is funded by its operations and maintenance program. Its management activity at the landfill is authorized because it is essential to the Corps' mission: the Corps needs a repository for dried material from the dredge placement site to create capacity for new dredged material. Fortunately, the region's drought accelerated the drying process, reducing the Corps' costs. The Corps excavated dried dredged material and placed it in the landfill, where this capping will achieve the necessary thickness when the landfill is closed.

## **Lending Expertise to Comprehensive Planning in Coralville, Iowa**

A Brownfields Assessment Demonstration Pilot in Coralville, Iowa, targets a 200-acre, waterfront industrial park, formerly used as a municipal landfill, coal storage area, asphalt plant, railroad yard, automotive and trucking repair business, and waste transfer station. The Corps advanced redevelopment of the site by working with the city and a private contractor on a comprehensive land-use plan for the area.

In 1999, representatives of the Corps' Rock Island District began work with Coralville officials to identify assistance they could provide at the brownfield site, outlining the Corps' authorities and obtaining public feedback. Based on these discussions, the Rock Island District prepared a cost-share agreement and scope of work, under the Section 22 General Investigations Program that authorizes assistance to states, local governments, and other nonfederal entities in preparing comprehensive plans for the development, use, and conservation of water and related land resources.

The project received congressional approval and funding in February 2000. In the meantime, the Corps used its Planning Assistance for States program to work with the city and a contractor on developing a comprehensive land-use plan that includes floodplain analysis, a stormwater plan, and greenways and trails development. The Corps covered half of the study's \$160,000-cost. Although the city obviously benefitted from the Corps' cost share, its primary incentive for working with the Corps was its expertise in stormwater and floodplain management.

### **Assessing Groundwater in Cowpens, South Carolina, and Seattle, Washington**

Groundwater contamination creates a natural link between brownfield sites and the Corps' expertise. Many brownfields require groundwater sampling, assessment, and remediation planning – all tasks encompassed by the Corps' mission of water resource planning and management.

**Cowpens, South Carolina.** By leveraging a Brownfields Assessment Pilot Grant, Cowpens, South Carolina has made steady progress in cleaning up a 70-acre site and manufacturing plant that once housed the town's largest employer. The Corps has assisted in preparing the site for redevelopment by conducting groundwater sampling and producing a plan for the brownfield assessment.

The EPA brownfield grant enabled Cowpens to enlist a national environmental cleanup company to test 85 barrels of industrial chemicals and remove them from the site free of charge. In addition, a local environmental contractor performed an asbestos and lead survey and provided a cleanup cost estimate for the former manufacturing facility. Under a \$500,000 Brownfields Cleanup Revolving Loan Fund (BCRLF) pilot, the town will work with the South Carolina Department of Commerce to integrate other loan, grant, or tax incentive programs into its redevelopment-financing package. The Corps has offered the town technological assistance and advisory services for development of its BCRLF program.

After becoming acquainted with Cowpens' brownfield coordinator, the Corps committed \$25,000 – which had been set aside for brownfield work – to explore cleanup approaches for the site's groundwater contamination. The Corps collected approximately 50 groundwater samples and authored a plan for more field work. The Corps also provided a cost estimate for the plan. Although, the town decided to contract the work to the private sector, it used the Corps' sampling plan to solicit bids for the work.

**Seattle, Washington.** In King County and Seattle, Washington, the brownfield program's Environmental Extension Service (EES) provides direct technical assistance to individual brownfield projects by conducting assessments and linking projects to federal, state, and local financial and technical assistance programs. At the brownfield program's request, the Corps worked with EES in conducting a technology screening study to determine relevant cleanup criteria and appropriate treatment technologies for groundwater at contaminated sites in the Duwamish River's industrial corridor. EES assisted in the study by assembling and summarizing environmental documents pertaining to prior work on the site.

In addition, the Corps provided assistance when King County asked EPA for a targeted brownfield site assessment at one of the sites in the corridor – an abandoned chrome plating plant called Advance Electroplating. EPA hired the Corps to do a report, resulting in a very successful partnership among the three entities that was the first of its kind. By working together, the partners assured that they developed data that was suitable for each of their needs. The Corps also made use of EPA personnel, contractors, and available county resources, meeting a challenge to achieve a “lean” project that has produced recommendations for modifying procedures elsewhere for greater efficiency and reduced costs. The project took just ten days to investigate residual contamination in the groundwater wells around the site.

## **Corps Reform**

In recent years, some momentum for expanding and formalizing the Corps' role in brownfield redevelopment has given way to concerns about controlling the cost and environmental impact of Corps projects. However, none of the proposals to expand or curtail the Corps' activities has been enacted. In 2002, controversy over Corps reform stalled reauthorization of the Water Resources Development Act (WRDA), which funds Corps projects and guides its operations. Without legislation in the 107<sup>th</sup> Congress, the next WRDA reauthorization probably will not occur until 2004.

In 1999, the House version of the WRDA reauthorization included specific brownfield authority, enabling the Corps to assist state and local governments with assessment, planning, and design for cleaning, restoring, or reusing sites where it would contribute to the conservation of water resources. The provision was eliminated in conference committee. The Corps sought this brownfield authorization because at times EPA's authority was not adequate for the Corps to complete cleanup at water-related sites. In addition, the authorization would have given the Corps greater flexibility in assisting communities with waterfront redevelopment projects and enabled it to work with other federal agencies as a full partner.

The late Senator John Chafee introduced a more ambitious bill in March 2000 (S. 2335) that would have established a brownfield program at the Corps. The bill would have authorized \$100 million annually for the Corps to undertake brownfield projects at publicly owned sites, with a federal cost share of 65 percent. In endorsing the measure, Senator Chafee said, "Providing funding to the Corps to pay for work it is already doing successfully in cities such as Kansas City, Providence, and Stamford, Connecticut will stimulate economic development and environmental protection, while mitigating urban sprawl."

In the last Congress, any interest in expanding the Corps' authority was overshadowed by calls for broader reform. In 2002, bills proposed in both the Senate and House would have required an independent review of Corps projects that cost more than \$25 million or \$30 million respectively, as well as those determined to be controversial. These amendments were based on recommendations by the National Academy of Sciences, made after studies found the Corps had manipulated cost-benefit studies to justify some large projects. The legislation never reached the Senate and House floors, but the movement for Corps reform was instrumental in stalling WRDA reauthorization.

## **Conclusions: The Corps Role**

### **Advantages of Involving the Corps in Brownfields**

Many examples illustrate the benefits of involving the Corps in federal, state, and local brownfield redevelopment projects. Particularly for waterfront brownfields, the Corps' experience has obvious linkages that can be leveraged to reduce duplication of effort and produce economies of scale.

**Funding:** The Corps can contribute a significant amount of funding to brownfield projects, some of which finances construction activity that grants from other federal agencies, such as EPA, do not cover. For example, the Corps can undertake construction under its section 206 authority for the restoration and protection of aquatic ecosystems and section 1135 authority for ecosystem restoration through modification of Corps structures.

**Expertise:** The Corps' traditional activities require many of the same areas of expertise that brownfields demand. The Corps routinely performs characterization studies, conducts ecological restoration, develops land-use plans, and rebuilds infrastructure.

**History:** In many cities engaged in brownfield redevelopment, the Corps already has worked for decades on adjacent or related water projects such as river channelization and flood control. Through this experience, the Corps is familiar not only with local hydrology and geography, but also with local contractors, elected officials, and community leaders. Often that means the Corps "hits the ground running," speeding completion of brownfield tasks by tapping into its local knowledge and connections.

**Beneficial Reuse:** Ongoing Corps waterway projects can have a complementary relationship with brownfield projects: the waterway projects need to store and dispose of dredge spoils, and the brownfield projects need to cap and grade land areas. The Corps can dredge and treat needed fill material, often in very close proximity to the brownfield site where it will be beneficially reused.

In addition, state and local brownfield practitioners routinely comment on their excellent relationships with the Corps, viewing it as a full partner in local redevelopment efforts. Despite limitations on the Corps' resources and authorities, its contributions of technical expertise and planning facilitation are widely recognized as key ingredients in brownfield revitalization.

### **Barriers to Involving the Corps in Brownfields**

Despite the advantages of the Corps' participation in brownfield projects, several barriers to Corps involvement persist. All of these barriers can be exacerbated for small communities, which may lack the resources not only to match Corps funding but also to identify a role for the Corps in their brownfield projects and document its justification.

**Costs:** Because most Corps projects are funded on a cost-share basis, some communities with limited resources cannot afford them. A community may present a strong opportunity for leveraging ongoing Corps activities in the area or applying specific Corps expertise to a severe environmental problem, but without matching funds it is unlikely to obtain Corps assistance. For

example, although the county of Northampton, Virginia, has an ongoing agreement with the Corps, it is difficult for such a small county to define a specific role for the Corps in brownfield activities. Moreover, because the county brownfield project involves the creation of a public park, there are no profits from which to draw matching funds.

In addition, federal law requires the Corps to receive project funding before the work is performed. The Corps may accept partial funding, but work must stop as soon as funding is depleted. Some communities cannot operate under such a relationship, and instead hire contractors that submit bills for reimbursement of completed work.

Finally, the cost of the Corps' services can exceed the cost of a private contractor, especially if the Corps subcontracts for all or part of the services it provides. In those cases, the project costs include both the cost of the contracted services and the cost of the Corps personnel who plan, secure, and oversee the services. Additional costs associated with involving the Corps generally have a greater proportional impact on less costly planning and investigation projects than on larger, more expensive projects involving construction. Therefore, Corps partners must weigh the costs of working with the Corps against the benefits of both the Corps' expertise and its financial contribution to the project.

**Congressional Authorization:** Many Corps projects require specific Congressional authorization and appropriations to proceed. Although this system ensures direct oversight, it also can create uncertainty in planning Corps projects because of the unpredictable congressional process. The 107<sup>th</sup> Congress underscored this issue, when controversy over Corps reform prevented WRDA reauthorization and thus precluded funding for some Corps projects that would benefit brownfields.

**Brownfield Authority:** The Corps has no specific authority to work on brownfield projects. Therefore, even in areas where the Corps has performed extensive work under related authorities, established working relationships, and gained local experience, it may be unable to provide direct assistance at brownfield sites. For example, Des Moines, Iowa, at one time sought to work with the Corps on a cost-share basis to conduct activities at the Riverpoint West brownfield redevelopment site. The Corps already was working with the city on floodplain analysis in the area watershed, and was well qualified to assist in environmental site assessment and the restoration of green space, flora, wildlife management, aquatic, and other site infrastructure. Moreover, by conducting the Corps' flood control study in concert with a brownfield study, economies of scale and reduced duplication may have reduced costs. However, without a brownfield authority the Corps could not expand its work to include activities at Riverpoint West.

Moreover, the Thomas amendment's requirements, designed to prevent the Corps from competing with private contractors, can prevent the Corps from providing services to some small communities that have no access to private-sector technical and management assistance. The amendment requires that any new work for state and local governments under ICA authorization must obtain Corps headquarters approval – a daunting process even for larger cities. For example, under the Thomas amendment restrictions, it is unlikely the Corps would have been able to help St. Louis package contracts for demolition and site work, even though the Corps already had provided the city with technical assistance, project management, and contract assistance.

**Interagency Agreements:** The Corps often works on brownfield projects with the assistance of other agencies such as EPA, which either directly fund the Corps' activities or provide matching funds for a community's share of project costs. This creates a cost in time and effort for both sides: the Corps must negotiate funding from other agencies in order to work, and the other agencies must develop a memorandum of agreement with the Corps – which can be at least as labor-intensive as issuing a request for proposals from contractors.

In addition, in some cases agencies like EPA hesitate to enlist the Corps in project activities, such as site assessment, because working with another federal agency limits the funding agency's ability to control costs. For example, with a contractor EPA can take steps to rein in costs as needed, but with the Corps EPA has no recourse if costs escalate or worse, the Corps exhausts its funding before the work is complete. It has even been suggested in East St. Louis, Illinois, that the Corps should partner with the Economic Development Administration (EDA), which gives communities funding to award contracts; the Corps could take this funding and manage it on behalf of the communities. EDA is reviewing a partnering proposal from the Corps to test this approach, but to date it has not been used.

**Outreach:** Unlike other federal agencies, the Corps does not conduct outreach to market its services, solicit grant proposals, or identify candidates for assistance on a competitive basis. This means even for low-cost services, such as assistance in contract administration, the Corps has limited opportunity to form partnerships with the cities – and particularly small communities – that may have the greatest environmental need and would benefit most from the Corps' expertise.

Smart contracting is one of the Corps' greatest strengths, offering tools and mentoring to small communities with no contracting experience, which may be able to negotiate a contract but have no idea how to manage it. The Corps has a strong track record in running such contracts well and obtaining good quality assurance, but it has little opportunity to share that knowledge because it cannot conduct community outreach as other federal agencies do.

## **Facilitating Corps Involvement**

A case can be made that, in general, federal contracting with the private sector is more efficient than developing in-house expertise within federal agencies. However, for many brownfield projects – especially those adjacent to ongoing Corps work – making use of unique Corps capabilities offers clear advantages over contracting. The Corps has qualified engineering staff in place, many with years of experience working in the very communities in need of technical assistance for brownfields. In some cases brownfield projects actually complement and overlap with ongoing Corps work, and yet the Corps' capacity to advance brownfield redevelopment is left untapped.

In a political climate favoring streamlining federal projects and increasing Congressional oversight, it may be an unlikely time to facilitate and increase Corps involvement in brownfield projects. Still, in light of the potential efficiencies and cost savings the Corps' assistance in brownfields can provide, limited measures warrant consideration.

**Specific authorization** for the Corps to undertake brownfield work, similar to language included in the 1999 House version of WRDA, would curtail the time-consuming exercise of identifying a related Corps authority. Particularly in brownfield showcase communities and other areas where multiple federal agencies are collaborating, it would vastly simplify Corps participation if it were authorized to act as an equal partner. As a safeguard against “mission creep,” the authority could be limited to brownfields where the Corps already has other studies or construction projects underway and the brownfield work would leverage these activities.

**Program funding** would enable the Corps to assist in brownfield projects without negotiating for grants from other federal agencies. This would be most beneficial when the Corps already has invested time and effort at a brownfield site and been forced to cut short its involvement for lack of continued funding. Moreover, a provision to exempt certain communities with limited resources from cost-share requirements would allow the Corps to provide assistance where it is needed most.