

A COMMUNICATIONS PROGRAM FOR WORKING WITH IMPACTED PROPERTY OWNERS AT A SUPERFUND SITE IN A HIGHLY DEVELOPED SETTING

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ABSTRACT

This paper describes a comprehensive communications program developed by the U.S. Army Corps of Engineers and its contractor, Shaw Environmental, Inc., to minimize impacts to affected property owners during remedial activities at the Maywood (NJ) Superfund Site. Extensive interaction between the project team and property owners is critical as many areas where subsurface soil contaminants have been or will be remediated also house active business operations. Those areas must be temporarily taken out of service to allow for excavation of contaminated material, and provisions for alternate services arranged. The challenge is to safely and efficiently conduct the cleanup while minimizing and in some cases eliminating impacts to normal businesses operations. The Maywood Site project team recognized early on that inability to meet these challenges would result in schedule delays, causing a ripple effect on resource allocation and budget management. An integrated and forward-looking communication approach was therefore developed to identify and address the unique logistical, operational and human needs of each business.

The paper focuses on communications with one property owner, the Bank of New York (BNY), a nationally prominent banking and financial services institution. BNY owns three properties that are designated as part of the Maywood Site. Contamination at a fourth contiguous property, also owned by BNY, was identified during remedial activities at one of the designated properties. Each property supports round-the-clock operations and, taken together, employ nearly one thousand workers. To date, remedial activities on three of the properties have been successfully completed, as has partial remediation of the fourth.

INTRODUCTION

The Maywood Site is located in a highly developed area of northeastern New Jersey, in the Boroughs of Maywood and Lodi and the Township of Rochelle Park, Bergen County. The site is 13 kilometers west of New York City. The combined population of the three communities is 39,022, with a population density of 5,271 per square kilometer. This compares to New Jersey's statewide density of 705 per square kilometer (ranking the state first in the nation), and a national figure of 49.5 per square kilometer [1].

A total of 88 properties have been identified as part of the site. They include a mix of residential, commercial and a few government-owned properties. Contamination at these properties resulted from chemical extraction of thorium and other radioactive rare earth elements from monazite sand. The extracted thorium was then sold to makers of industrial products including mantles for gas lanterns. The extraction was performed commercially at the Maywood Chemical Works (MCW) plant in Maywood from the early 1900s to 1959. Figure 1 shows the former MCW property and vicinity. The property still hosts an active chemical plant not associated with MCW.



Fig. 1. An aerial view of the former Maywood Chemical Works site and vicinity, circa 1995.

Contaminants were dispersed from the MCW site in three ways: soil and sediment transport along the former Lodi Brook Channel that crossed the MCW property (the brook was diverted to an underground culvert in the 1960s); placement at nearby properties of contaminated fill from the MCW site; and through onsite direct disposal including drum burial and lagoon storage of liquid wastes. The primary contaminant of concern at the site is thorium-232.

Environmental surveys associated with nearby construction projects in the early 1980s revealed the presence of radioactive materials at levels above state and federal guidelines. The site was added to the Environmental Protection Agency (EPA) National Priorities List in 1983, and subsequently assigned by Congress to the Department of Energy (DOE) in 1984. DOE placed the Maywood Site in its Formerly Utilized Sites Remedial Action Program, or FUSRAP. Congress transferred management of the FUSRAP program to Army Corps of Engineers in October 1997. EPA has regulatory authority over the Maywood Site. All activities are conducted in accordance with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and are coordinated with the State of New Jersey.

All identified residential properties within the site have been remediated. The project is currently addressing the 24 remaining commercial and government-owned properties (known in FUSRAP as “vicinity properties”) yet to be remediated. Most of these house active businesses, ranging from privately owned light industrial facilities to Fortune 500 company operations. BNY owns several site properties on Essex Street, an extremely busy four-lane county road that provides access to heavily traveled portions of Interstate 80 and New Jersey Route 17. Essex Street is also the border between the Boroughs of Maywood and Lodi and between Rochelle Park and Lodi. Portions of the BNY properties are located in all three communities. Figure 2 shows the location of site properties currently being addressed, highlighting the BNY properties in particular. While Fig. 2 delineates whole parcels, contamination is known or suspected to be present in discrete areas of individual properties.

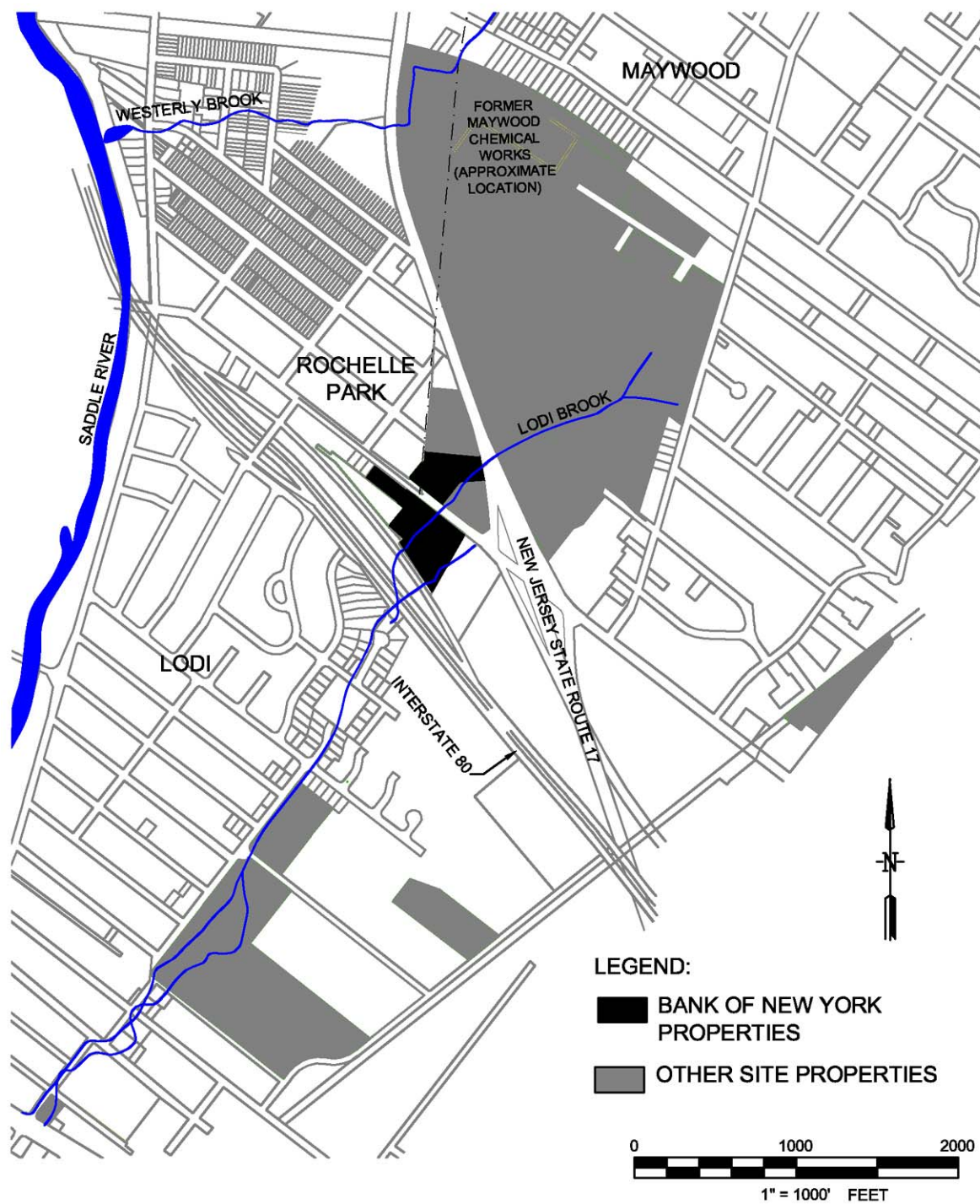


Fig. 2 FUSRAP Maywood superfund site properties.

A CASE STUDY: WORKING WITH A KEY STAKEHOLDER

From the outset, the Corps' mission at the Maywood Site was to remediate vicinity properties within prescribed budgets and schedules while mitigating impacts to property operations to the extent practicable. While remedial construction at the BNY properties occurred between September 2002 and July 2003, the Army Corps, Shaw and its subcontractors (collectively, the project team) recognized early

on that many aspects of property owner coordination required action well in advance of actual site work. For example, agreements covering property access had to be executed between the Corps and BNY. This process was initiated in February 1999 when the Corps' Real Estate Division, based at the New York District, drafted and mailed access agreement documents to all vicinity property owners. Shortly thereafter, in March, project team members met with the individual property owners, including BNY.

The range of participants at these early meetings is noteworthy as it gave an indication of the complexities of property owner coordination, and the consequent need for a sophisticated communications program. On the project side, attendees included the Corps Project Manager, Technical Manager, and Real Estate Specialist, as well as Shaw's Project Engineer. BNY participants included property management representatives from both the corporate and property-specific level. For the project team, the prime objective of the meetings was to advance the access agreements, which were ultimately executed in May (these agreements would be renewed in September 2002; access to the fourth BNY property where contamination was identified during remedial construction was also obtained at that time). Questions on project schedule were also anticipated and prepared for. But the team also recognized that this first contact presented a strategic opportunity to establish a communications framework based on openness and transparency that would serve both project and stakeholder long-term interests. To that end, BNY was encouraged to voice any and all concerns or information requests regarding Maywood site activities. Some of the items raised included:

- Potential disturbance of subsurface contaminants during building upgrades planned by the property owner
- Employee access arrangements during remedial construction
- Potential health risks from site contaminants to employees
- Potential safety hazards during remedial construction

Lessons from this initial contact were identified during a routine project team debriefing following the meeting. Planning and implementing an effective communications strategy that responded to stakeholder concerns (in this case, those of BNY and its employees) required input and participation across project disciplines. Engineering and Design staff would need to address remedial design concerns. Construction safety issues would require input from the site Safety & Health Officer and Construction Superintendent. Questions regarding potential public health risks were directed to the project Health Physicist and site Radiation Safety Officer. All responses would need to pass through the site Community Relations Specialist to ensure a coherent and consistent message appropriately tailored to intended audience(s). The Community Relations Specialist would also serve as the project's primary point of contact, and work to establish a BNY counterpart. This was especially important given BNY's complex organizational structure. And of course Project Management would need to approve communications to external audiences. Success depended on a true team effort.

Following the initial property owner contacts in February and March of 1999, project team efforts were focused on reaching regulatory milestones including the Feasibility Study and Proposed Plan for the site. Outreach efforts to the general public during this time included periodic community newsletters, a fully staffed public information office located in Maywood's central business district, a project web site (www.fusrapmaywood.com) featuring photos of various site activities and the site Administrative Record, and a public availability session in April 2000. These tools served an overall project communications goal of keeping the community at large informed of and involved in activities at the site. However, property-specific communications with individual owners did not cease during this period, even though remediation under a site Record of Decision was 12 to 18 months away on the project schedule at that time. In the case of BNY, corporate business plans independent of FUSRAP issues triggered a period of even more intensive and sustained communications.

Project Support of Property Owner Activities

Project team and BNY representatives met in late October 1999 at the bank's headquarters in New York City. It is noteworthy for reasons to be explained that the headquarters building was located one block north of the World Trade Center. BNY requested the meeting to discuss their plans for a major upgrade of one building and the main onsite parking lot, shown in Fig. 3.



Fig. 3. Parking lot at one BNY vicinity property. The source of contamination at the property, a former surface stream now culverted, ran directly through this lot

Aside from interior improvements, the work would involve installation of a new electrical transformer, pad, and associated cables, parking lot resurfacing, traffic island construction, and landscaping. Based on information on contaminant distribution at the property provided by the project team, BNY was rightly concerned about encountering contaminated material during their construction. Of particular concern was intrusive work associated with the transformer pad footings and cable trenches. Project team representatives offered to provide radiological safety support to BNY's activities, while emphasizing that such support must be in accordance with sufficient notice, resource availability, applicable regulations and Corps policies. Consequently, the project team could not direct property owner activities or assume responsibility for health and safety and other regulatory compliance. It was agreed that the project team would provide radiation technicians to monitor BNY's work and alert them to potential impacts to contaminated material, and BNY would assume its responsibilities as a Superfund site property owner under CERCLA. The first detailed coordination between the project team and BNY had resulted in a clear consensus that accommodated an important stakeholder, consistent with the project's authority and mission.

From the October 1999 meeting through BNY's construction startup in February 2000 to project completion in January 2001, dozens of contacts between the parties were carefully documented by project staff to create an accurate historical record and ensure consistency of communications. The scope of these contacts necessarily widened to include BNY's consulting engineer, architect and construction contractors, energy and telecommunications utilities supporting the work, and additional BNY personnel including building management staff. A vigorous two-way information flow ensued, with BNY providing

site plans, engineering drawings, and construction details while the project team supplied site characterization data and drawings showing the known or suspected limits of contamination. Project team task leaders from construction, engineering and community relations routinely attended BNY's weekly onsite construction meetings to stay informed of the scope and schedule of upcoming activities.

Project team members from the appropriate disciplines also provided an onsite briefing on the FUSRAP Maywood Site during this time for BNY management, employees and contractors. Briefing topics included:

- Site history and completed activities under FUSRAP
- Regulatory framework for the site (presented with the EPA Remedial Project Manager for the site)
- Contaminants of concern and radiation basics
- Current understanding of contaminant distribution at BNY properties
- Health & Safety protection during remedial construction
- FUSRAP plans and schedules

In addition to a slide presentation and discussion, display maps and drawings were used to illustrate key points, and then left behind for posting on office bulletin boards and other high-visibility locations. Handouts of the presentation materials were also provided. A similar presentation was provided for a group of New York City-based BNY employees who were considering offers to relocate to the Maywood and Lodi facilities. This presentation was tailored to address radiation safety principles and potential health effects in detail, as BNY management had advised that these were of particular concern to employees considering relocation. The presentation was characterized by a lively exchange of questions, concerns and responses, and follow-up contacts in response to individual concerns and information requests were made. To the project's knowledge, no employees declined to relocate due to health concerns related to the FUSRAP status of the BNY properties. Lastly, a third series of employee briefings spanning several days was provided at the BNY Lodi and Maywood facilities in May 2002, prior to the start of remedial construction at those properties. Over 200 BNY employees in total attended these sessions.

A practical demonstration of the value of information exchange occurred early on. When reviewing site plans for the BNY construction, project team engineers noted that the proposed location of the transformer pad was some distance away from the building it served, placing it closer to areas of known contamination. Locating the pad closer to the building would reduce the potential for disturbing contaminated soil, and also take advantage of the buffer area around building foundations that would not be disturbed during remediation. This would decrease the likelihood that the transformer would be impacted by remedial construction. BNY made the modification to the mutual benefit of all.

The experiences of 1999 and 2000 were positive on many levels. Commitments were made, schedules met and objectives achieved. BNY was able to complete a much-needed upgrade of its facilities, the Corps provided important radiological safety support and engineering consultation, and the entire project team got hands-on training in stakeholder communication. The trust and credibility that were established would serve the project well going forward.

This was soon evidenced when BNY undertook very similar upgrades at another one of its properties within the Maywood Site. These activities initially included parking lot improvements and construction of a small concrete pad, for which radiological safety support was provided in late summer 2000. However, the events of September 11, 2001 triggered a rush of new construction at this property. As noted earlier, BNY's headquarters were a block north of the World Trade Center in lower Manhattan. The tragic events of 9/11 forced BNY out of its building for the foreseeable future, if not permanently. As a result, many of

the building's operations were moved to other facilities, including the Maywood and Lodi facilities. This meant dozens of additional employees and with them the need for more parking, as well as site security and electric service upgrades mandated by the federal government and installation of a new diesel generator. Again, the project team and BNY worked in close coordination to ensure that the work was performed safely but as expeditiously as possible. For example, BNY plans called for a new security barrier around most of the building perimeter. Portions of the barrier were to be located in known contaminated areas, including areas not scheduled for remediation for some time. Considering the presence of these subsurface contaminants, project team engineering and construction managers suggested a chain link fence mounted on freestanding concrete barriers. This design would meet the security specifications mandated for the barrier while leaving subsurface contamination undisturbed. Again, after some additional coordination to finalize design specifications, the recommendation was adopted into BNY's construction plan. The project team had brought to bear its knowledge of site environmental conditions to help find a solution in everyone's best interest.

The lessons learned during the earlier property improvements clearly paid dividends during the second round. The project team was even more proactive in encouraging all parties (including new contacts from BNY's security department and a new set of contractors and consultants) to share information and reach consensus on mutual expectations quickly and without misunderstanding. As a result, the required building upgrades were made on a very aggressive schedule, while impacts to site contaminants were managed safely and in compliance with applicable regulations.

Planning and Coordination for FUSRAP Remediation

In 2001, the project team prepared a document called an Engineering Evaluation and Cost Analysis (EE/CA). The document evaluated the need for removal actions and various removal alternatives at the site, in accordance with provisions of the National Oil and Hazardous Substances Pollution Contingency Plan, or NCP. [2]. The EE/CA was prompted by New Jersey Department of Transportation (NJDOT) plans for highway improvements that would impact several site properties, including all the BNY properties. The NCP provides for interim removal actions under an EE/CA in the event of potential contaminant releases at Superfund sites. The EE/CA concluded that the planned roadwork posed the potential for such releases. The EE/CA was approved by Maywood Site regulators and signed into effect by Corps officials on November 26, 2001. This authorized the Corps to begin cleanup of the affected properties.

In anticipation of the EE/CA and as part of a proactive approach to stakeholder communication, the project team held a kick-off coordination meeting with BNY representatives on November 14, 2001. First, the team noted a requirement to document existing property conditions (both exterior and inside buildings) to protect both the property owner and the project. The appropriate contacts to arrange a video survey of the properties were identified, and it was agreed that copies of the tapes would be provided to BNY. Next, current drawings showing known or suspected areas of contamination, estimated limits of excavation and proposed construction zones were presented. Consistent with a commitment to openness, project team representatives hastened to add that the drawings were based on sampling and other site characterization data, and that soil volumes and areas of impact can and do change as additional contamination is encountered in the field. The project team also requested historic building construction drawings from BNY. Aside from excavation of contaminated soil, the project team explained the need to install a new box culvert to replace the deteriorated pipe that channeled the historic Lodi Brook under a BNY parking lot. This would be a major component of the site work, and would require alternate employee parking arrangements for most of the project. Several options to create new parking space on heretofore-unused portions of the BNY properties were discussed, as was the possibility of leasing space from nearby landowners.

Lastly, remedial construction would require temporary water and electric services. Prior project experience in establishing temporary service accounts with local utilities to support cleanups had not been positive. Such service requests were put in a queue by the utilities, and weeks passed before utility crews actually visited the work sites. Such long lead times, added to cancelled service appointments and subsequent rounds of "telephone tag" with the utilities, dictated another approach. The project therefore requested temporary water and power connections to existing BNY services, with separate metering to capture reimbursement costs. In one instance, BNY agreed to the request. At a second property, the connection locations were not practical, so the project obtained temporary service from an adjacent property that was actually closer to the remediation work zone.

For its part, BNY was very concerned about parking issues, as some of their lots were already operating at or near capacity. One of these employee lots is pictured in Figure 4. The bank also stressed the need for adequate safety and health protection for employees during construction, from both a construction hazard and environmental exposure perspective. This was especially critical as employees routinely walked between two onsite buildings, putting them in proximity to remediation activities. Finally, the BNY office manager asked if a street-side bus stop shelter used by many employees would be relocated. Project team members replied that it would, and BNY provided the team with a contact at New Jersey Transit, owners of the shelter. They stressed a need to minimize the length of time the shelter was out of service, given its high level of use. Again, the complexities of operating in such an active setting were becoming apparent.

Once again the project team held its standard debriefing to identify action items from the meeting and assign responsibilities. While the actions covered a range of coordination issues, the focus here is on one of the most difficult. Ample parking is something that many of us take for granted, but given the scarcity of unused land in the site area, it was apparent that providing alternate employee parking during remedial construction was a challenge that would require significant lead-time.



Fig. 4. Parking lot at a second BNY vicinity property prior to remediation. contaminated soil removal would take place across most of this lot

Based on institutional project knowledge and observations in the site area, three potential options for alternate parking space were identified:

- Option 1: Undeveloped land adjacent to one of the BNY properties
- Option 2: Excess capacity in an existing lot on an adjoining commercial property (also a site vicinity property)
- Option 3: An undeveloped 0.58-acre lot adjacent to the property referenced above

The project team immediately consulted local tax records to identify ownership of these parcels. It was determined that BNY owned the undeveloped land referred to in the first option. BNY property management representatives were contacted and supported in concept the possibility of improving the land to make it suitable for parking. They of course wished to review any plans if the concept was pursued to ensure that the employee safety and security needs were met. The project Community Relations Specialist, using established contacts, met with the Option 2 property owners. They expressed interest in allowing use of the excess capacity, providing the parking needs of their tenant (a major retailer's appliance service center) could be assured. Fortunately, this property owner also owned the Option 3 lot, and expressed interest in leasing that parcel for project use as well. While all three options looked promising, working out the details to meet property owner and project needs would again be a complex process.

Parallel to the property owner research and initial contacts, design engineers went to work on some of those details. They had to determine if the number of new parking spaces available under the three options would in fact equal or exceed the number of spaces that would be temporarily displaced during remediation. Based on estimates of the total number of displaced spaces, it became clear that remedial construction at one of the BNY properties had to be phased to limit the number of spaces displaced at any one time. The available options simply did not accommodate the total number of spaces to be displaced. Therefore, estimates on the number of displaced spaces per phase were developed and compared to the number of alternate spaces that could be made available under the options. Various parking configurations and traffic and pedestrian flow patterns were also considered during this process.

When the project team reached internal consensus on a workable plan (i.e., one that would minimize impacts to the various property owners to the extent practicable while also meeting the needs of the project), meetings with the property owners and the affected tenant were held. Design drawings were presented, and questions and concerns were expressed freely in an informal and cooperative environment. BNY's specific concerns included adequate temporary lighting in the newly developed lot, employee safety walking to and from vehicles, potential impacts to delivery and visitor vehicles under the new traffic patterns, and overall site security. The tenant at the Option 2 property was most concerned about impacts to customer access and parking and to deliveries. The owner of the Option 3 property, in addition to commenting on ongoing lease negotiations with the Corps Real Estate Division, made several requests and recommendations regarding improvements to the vacant lot. With respect to the latter, the project team was mindful of impacts to residences bordering one side of the vacant lot. Improvements to the lot would involve resurfacing with gravel and some vegetation clearing. Construction plans needed to include measures to ensure that existing flood-prone conditions in this area were not worsened and in fact improved. To that end, vegetation removal was limited to that needed to create the required number of parking spaces, an onsite catch basin was flushed, and a section of deteriorated storm drain replaced. Public outreach on these improvements included coordination with local planning and public works officials and mailings to neighboring residents and other landowners. The letters detailed the need for and nature of the work and provided a local project contact for more information.

Alternate parking arrangements required several months and dozens of contacts to conclude, but agreed-to designs, access understandings, safety and security measures and the Option 3 property lease were in

place in time for the September 2002 start of remedial construction. Once again, the keys to success were communication, responsiveness, persistence, and timely information sharing between all the parties. It took the concerted efforts of literally dozens of individuals to reach consensus on an issue that was critical to moving the project forward.

Of course, coordination with impacted property owners does not stop when remedial construction begins. Instead, it morphs into a new form more appropriate to the job at hand. In the case of the BNY cleanup, much of the day-to-day communication during remediation was between the project Construction Superintendent (analogous to a site foreman) and the BNY building manager and staff. These individuals, by virtue of their onsite location and understanding of construction and property operations respectively, were best positioned to respond to the questions, requests and concerns that inevitably arise on a major construction site. This "in the field" line of communication facilitated quick resolution of logistical and other issues that allowed construction to proceed uninterrupted. When issues arose that could not be resolved in the field, the Construction Superintendent immediately elevated them to the appropriate project team member so that work on resolution could start. Resulting contacts with BNY by the project team typically revealed that the building manager did the same within his organization.

From the early meetings in 1999 to the contacts just described, communication, both internal and external and at numerous levels of each, was a key element to the successful remediation of the BNY properties at the FUSRAP Maywood Superfund Site.

CONCLUSIONS

It is impossible to understate the importance of communication in building consensus with impacted property owners at the FUSRAP Maywood Site. As described in the Case Study section, the scope and level of communications with just one property owner, the Bank of New York, was striking. Consider that project records document over 100 contacts with BNY alone from February 1999 to June 2003. In the main, these are records of meetings, conference calls, correspondence and other formal contacts, and do not reflect more informal contacts that likely number in the hundreds. As noted earlier, these detailed and readily searchable records proved a valuable tool in reconstructing past contacts to help craft consistent communications, track mutually agreed to assignments, and ensure fulfillment of commitments.

In addition to the sheer volume of contacts, the various organizations and individuals involved in public outreach efforts also illustrates the complex communications program that was implemented. First, a compilation of the internal (project) contributors to public outreach:

The Project Team

U.S. Army Corps of Engineers

- Project Manager
- Technical Manager
- Health Physicist
- Engineering Staff
- Construction Staff
- Real Estate Division
- Public Affairs Office
- Office of Counsel

The Project Team

Shaw Environmental, Inc. and subcontractors

- Project Manager
- Community Relations Specialist
- Project Environmental Engineer and staff
- Construction Superintendent
- Project Superintendent
- Site Safety & Health Officer
- Radiation Safety Officer
- Remedial Design Managers
- Contract Manager
- Project Scheduler
- Public Information Center staff
- Graphics/Publications Department
- Database Engineer

Other

- EPA Region 2
- New Jersey Department of Environmental Protection
- NJDOT Office of Project Management

Next, the external audiences for public outreach efforts:

BNY

- Property Management (corporate and local operations)
- Maintenance
- Legal
- Engineering
- Planning and Development
- Human Resources
- Security
- Employees
- BNY subcontractors

Others

- NJDOT Region North
- Bergen County Engineering Department
- Borough of Lodi Police Department
- Borough of Maywood Police Department
- Township of Rochelle Park Administrator
- Township of Rochelle Park Department of Public Works
- New Jersey Transit
- Public Service Electric & Gas Company
- Passaic Valley Water Commission
- United Water of New Jersey

- Adjacent property owners, tenants and residents

The success of the communications program implemented for the BNY work is evidenced in many ways. Following remediation at one property, the project requested access from BNY to a little-used parking lot as a staging area for FUSRAP work at another nearby property. BNY agreed almost immediately. BNY has routinely complimented project personnel on their professional and responsiveness during post-remediation site walkover inspections. And lastly but certainly as important, the remediation was completed within the anticipated timeframe established at the outset.

The complexity and challenge of the communications program at the FUSRAP Maywood Superfund Site is perhaps best illustrated by the fact that this paper examines communication with a single vicinity property owner. There are nineteen more in the current (and final) project phase of commercial property cleanups. Then consider the various points of contacts for each owner. Sometimes there is a single point of contact, but multiple contacts in the BNY model are more often the rule. Add to that tenants, attorneys, consultants and contractors, prior owners, and prospective buyers, and one begins to get a sense of the communications challenge the project faces every day. To date, the project has successfully met these challenges, as evidenced by steady progress towards remediation.

REFERENCES

- 1 United States Department of Commerce, U.S. Census Bureau. 2000 Decennial Census, various data sets. April 2000
- 2 United States Environmental Protection Agency. 40CFR.300.415(b)(4)(i), *National Oil and Hazardous Substances Contingency Plan*, July 1, 2003.