FUSRAP Middlesex South, New Jersey, Site: Innovative Strategies for Beneficial Reuse – 24620

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ABSTRACT

The US Department of Energy (DOE) began remediation at the US government-owned Middlesex South, New Jersey, Site (formerly the Middlesex Sampling Plant) in 1980, under the Formerly Utilized Sites Remedial Action Program (FUSRAP). Since 1997, the US Army Corps of Engineers (USACE) has continued site cleanup activities under FUSRAP, and surface soils have been remediated to an unrestricted-use level. The site is listed on the US Environmental Protection Agency (EPA) National Priorities List (NPL) and has been vacant since 1999. The groundwater remedy decision was finalized in 2020, with implementation in process. It is anticipated that groundwater remediation will be completed in fiscal year 2028.

In 2018, the Borough of Middlesex proposed acquiring the site for use as a Department of Public Works (DPW) and Office of Emergency Management facility, as well as acquiring a dedicated extension of a public road across the site. The dedicated public road supports a $40 million Leadership in Energy and Environmental Design-certified adjacent warehouse development and a larger community redevelopment zone. Both the DPW and warehouse projects are consistent with the larger growth plan for the borough and with the borough's Lincoln Boulevard Redevelopment Plan. The warehouse development alone will provide increased tax revenue and more than 150 jobs to the community.

Reuse of the Middlesex South site required a unique regulatory and land acquisition strategy due to the NPL listing and the status of the ongoing groundwater remediation. The strategy's goal was to effectively support site disposition and redevelopment schedules and incorporate community planning goals; the strategy required the innovative thinking and flexibility necessary to overcome challenges as they arose.
A multiagency collaboration team, including the DOE Office of Legacy Management, the borough and its developer, EPA Region 2, USACE, the New Jersey Department of Environmental Protection, and the US General Services Administration, was formed to facilitate disposition. The entire transaction took over 2 years to complete, including biweekly group meetings, several municipal ordinances, and many hours of document reviews from all parties involved. These efforts resulted in a mutually beneficial path forward for disposition. Key elements of the transaction included (1) evaluation of property transfer and disposal options against remediation and redevelopment schedules; (2) determination of the appropriate level of environmental documentation required to demonstrate that the property is environmentally suitable for transfer under the Comprehensive Environmental Response, Compensation, and Liability Act, Section 120(h), "Property Transferred by Federal Agencies"; and (3) completion of an easement allowing the borough early access to the DOE-owned property for the extension of a public road while the transfer documents were being negotiated and finalized.

The beneficial reuse of the site provides a much-needed asset to the community, as well as providing for management and mitigation of the risks to the environment, including the reduction of the government's overall ecological footprint. The collaborative efforts of the team, which encompassed public and private sectors at multiple levels, resulted in the reuse of acres of underutilized formerly contaminated land and will enhance the community now and well into the future. This effort was awarded EPA's Sixth Annual Federal Facility Excellence in Site Reuse Award for an NPL Site.

INTRODUCTION

The US Department of Energy (DOE) began remediation at the US government-owned Middlesex Sampling Plant (MSP), New Jersey, in 1980, under the Formerly Utilized Sites Remedial Action Program (FUSRAP). Since 1997, the US Army Corps of Engineers (USACE) has continued site cleanup activities under FUSRAP, and surface soils have been remediated to an unrestricted-use level. The property has been vacant since 1999. The groundwater remedy decision was finalized in 2020, with implementation in process.

In 2018, the Borough of Middlesex, New Jersey (borough) proposed the acquisition of the site for use as a Department of Public Works (DPW) and Office of Emergency Management facility and a public road. The public road in turn supports a $40 million Leadership in Energy and Environmental Design-certified adjacent warehouse development and a larger community redevelopment zone. Both the DPW and warehouse projects are consistent with the larger growth plan for the borough and consistent with the borough's Lincoln Boulevard Redevelopment Plan. The warehouse development alone would provide increased tax revenue and more than 150 jobs to the community. According to the US Environmental Protection Agency's (EPA's) Environmental Justice website [1], the borough is disproportionately impacted by environmental contamination.

In November 2018, a multiagency reuse team, including DOE Office of Legacy Management (LM) staff, the borough and its developer, EPA Region 2, USACE, the New Jersey Department of Environmental Protection (NJDEP), and the US General Services Administration (GSA), was formed to facilitate disposition. The intensive collaboration over 2 years, including biweekly group meetings, several municipal ordinances, and many hours of document reviews from all parties involved, resulted in a mutually beneficial path forward for disposition. Key elements included (1) evaluations of property transfer and disposal options against remediation and redevelopment schedules; (2) determination of the appropriate level of environmental documentation required to demonstrate that the property is environmentally suitable for transfer under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Section 120(h), **"**Property Transferred by Federal Agencies" [2]; and (3) completion of an easement allowing the borough early access to the DOE-owned property for extension of a public road.

The collaborative effort between federal and local agencies led to the successful transfer of the MSP FUSRAP site to the benefit of the borough community. The property will be used to construct a more appropriately located public works building and provides an extended public road to assist in neighboring redevelopment efforts.

This project was awarded EPA's Sixth Annual Federal Facility Excellence in Site Reuse Award for an NPL Site in June 2023.

BACKGROUND

The currently vacant MSP site is surrounded by residential and industrial property, as well as fields and marshes. Established by the USACE Manhattan Engineer District in 1943, the 3.9-hectare (9.6-acre) MSP was radiologically contaminated during its service to the nation's early atomic energy program. It was primarily used to sample, store, test, and transfer ores containing uranium, thorium, and beryllium. The US Atomic Energy Commission (AEC) later used the site for storage and performed limited sampling of thorium residues. In 1967, AEC terminated activities at the MSP and decontaminated onsite structures to meet criteria then in effect. The site served as a US Marine Corps Reserve training center from 1969 to 1979. In February 1999, EPA placed the MSP on the National Priorities List (NPL) within EPA Region 2.

The MSP contributed to contamination in the community. Beyond the MSP, several private properties including a church rectory, residential, commercial and industrial land in the community were also

contaminated. The remediation process has reduced the overall risks to human health and the environment through removal of soil contamination. The remedy for groundwater contamination emanating approximately 0.8 kilometer (0.5 mile) from the site is in the early stages of implementation.

Following a Remedial Investigation/Feasibility Study to determine the nature and extent of site contamination and to evaluate remedial alternatives, the remedy for the soil contamination (Operable Unit [OU] 1) was selected in the site's September 2005 Record of Decision (ROD). The remedy included excavation of contaminated soil to levels allowing for residential use, with offsite disposal of the material. EPA Region 2 is currently working with NJDEP and USACE to address groundwater contamination (OU 2). A ROD was completed in 2021. The two OUs encompass the entire property. Groundwater remedial actions are required for the northern portion of the site only. Figure 1 and Figure 2 show the MSP during and after soil remediation.

Figure 1. The MSP During Vicinity Property Remediation.

Figure 2. The MSP Postremediation, 2019.

COLLABORATION

The borough and its developers created an initial conceptual plan for future use of the MSP property. The borough had been seeking industrial-zoned vacant property for relocation of the current DPW, which is in a residential area. Relocation of the facility would alleviate neighborhood concerns over the nonconforming use and provide much-needed space for the expansion of DPW services. In addition, redevelopment was proposed for the large property adjacent to the MSP from an existing autobody business to a large-scale warehouse facility. The property had limited and unsafe access, which hampered the ability to secure funding for the redevelopment. The borough contacted DOE to discuss the plan, and this outreach led to an initial planning meeting in November 2018.

Several key disposition issues that required input from multiple agencies were identified, including the potential disposition of government-owned property that is in the process of remediation, meeting timelines for project funding, and addressing the safety needs of the adjacent redevelopment. Key agencies represented included DOE, USACE, EPA Region 2, and NJDEP. The initial meeting outlined the goals of redevelopment, established a collaborative relationship between all parties, and discussed initial options for a path forward.

In June 2019, the team came to a unanimous agreement on the property disposition. Numerous tasks were identified in support of the disposition, and biweekly teleconference meetings were initiated to manage completion of these tasks. The coordination and completion of the tasks required intensive collaboration. The leadership shown by the representatives from the various local and federal agencies involved in this process has played a key role in fostering collaboration and gaining alignment on the shared goal of accomplishing a smooth and efficient disposition of the MSP site. With more than 2 years of collaboration, the team collectively overcame several challenges, including the election of a new mayor and governing body for the borough, a change in the property disposition strategy, and a change in public road alignment. Despite these challenges, the team accomplished the following tasks:

(1) **Middlesex borough resolution:** The Middlesex Borough Council unanimously adopted Resolution #202-2019 in July 2019, authorizing the mayor to sign and submit the property transfer proposal and to sign a memorandum of understanding (MOU).

(2) **MOU:** The borough and LM entered into the MOU in August 2019. It solidifies the intention of the borough to acquire the entire site for public purposes and provides for the granting of the easement for extension of the public road.

(3) **Identification of a final property subdivision line:** The property required subdivision to support proposed development schedules. A subdivision line was identified and agreed upon by all team members that allowed for the greatest amount of initial land disposition, while preserving the need for continued government ownership of the northern parcel due to ongoing groundwater remediation requirements. The line was determined by the identification of the groundwater divide, an evaluation of groundwater flow patterns, and the identification of the southernmost extent of groundwater contamination.

(4) **Property surveys:** DOE initiated full property boundary surveys to include the subdivision line and subsequent legal descriptions of the individual parcels. These surveys were used to identify the best easement location for the public roadway and were also used in the subdivision request to the County of Middlesex.

(5) **Wetlands delineation:** During the developer's survey for the road easement boundary, a small wetlands area was identified onsite. USACE took the lead in performing a full wetlands delineation for DOE in support of the GSA disposal package.

(6) **Preparation of the Finding of Suitability to Transfer (FOST):** Using the framework of an existing memorandum of agreement (MOA), DOE contracted USACE to prepare the FOST for state and federal agency review and concurrence. The FOST was finalized in March 2020.

(7) **Easement:** LM granted the borough an easement to construct, maintain, and manage the public road extension. The borough simultaneously issued a license. This allowed an accelerated schedule for road construction, as the entire property transfer process may take over 1 year to complete. The design of the public roadway was approved by the borough, DOE, and USACE.

(8) **Middlesex Borough Ordinance #2005-20:** Ordinance #2005-20 was unanimously adopted by the Middlesex Borough Council on September 8, 2020, authorizing the mayor and municipal clerk to sign the DOE easement and borough license for the public road extension.

(9) **Project financing and road construction:** Completion of the FOST and approval of the road easement were crucial to providing required information for the warehouse developer's project financing.. LM and USACE were actively involved in reviewing and commenting on the developer's site plan and conducted site visits during road construction. A groundbreaking ceremony was held on June 6, 2022, and was attended by representatives from LM, USACE, EPA Region 2, the borough, and Claremont Development. Claremont Development provided access to a 24-hour video camera so all agencies involved could view site and roadway development in real time.

(10) **Preparation of the Finding of Suitability for Early Transfer (FOSET)**: Using the MOA, DOE contracted with USACE to prepare a FOSET for the northern portion of the site. Finalization of the FOSET required numerous team reviews and subsequent agreement to all comment responses, a

45-day public comment period, and review and approval by the EPA administrator and the governor of New Jersey.

Other collaborative tools were used to provide public site status updates:

- USACE maintains a FUSRAP MSP website, which provides fact sheets, project updates, meeting notices, and site documents. These documents are also maintained in the local public library.
- Public meetings were hosted to discuss both the soil and groundwater proposed plans and to gather public comment on the remediation and final land-use status of the site.
- The Middlesex Borough Council held several meetings to reach agreement on submitting the proposed redevelopment request and to approve the public roadway easement ordinance. The meetings were open to the public, and the agenda and meeting minutes were posted on the borough's website.
- A newspaper notice of the land-use board hearing to approve the adjacent development site plan (including the public road design) was published locally, and all property owners within 61 meters (200 feet) of the proposed redevelopment were notified of the hearing via certified mail.

REGULATORY STRUCTURE

As the site is listed on the NPL, the requirements of CERCLA Section 120(h) must be met to support the transfer of federally owned property which has not yet been fully remediated. To support an early transfer (i.e., transfer before full implementation of the groundwater remedy), appropriate documentation of the environmental condition of the site was required.

CERCLA Section 120(h) Requirements

CERCLA Section 120(h) imposes several requirements on all transfers of federal real property "owned by the United States" to nonfederal entities. The federal government, on deeds related to real property transactions, is required to provide a covenant warranting that:

- All remedial action necessary to protect human health and the environment with respect to any hazardous substance remaining on the property has been taken before the date of the transfer.
- The United States will return and perform any additional response action that may be required in the future.
- A perpetual right of access necessary to do such additional response actions is retained.

In addition, CERCLA Section 120(h) requires that property disposals include information on site-related hazardous substances; historic, archeological, and cultural resources; National Environmental Policy Act compliance; endangered species and biological resources; floodplains, wetlands, and coastal zone management; underground storage tanks; polychlorinated biphenyls, lead-based paint, and asbestos; radon gas; and pesticides. To meet this requirement, DOE completes GSA's "Hazardous Substance Activity Certification," Standard Form 118 in GSA's *Excess Real Property Due Diligence Checklist*.

This information is also needed to comply with the DOE Order 430.1C Chg 2 (AdminChg), *Real Property Asset Management* [3], provision to include environmental requirements in all real property disposals. In addition, DOE Order 458.1 Chg 4 (LtdChg), *Radiation Protection of the Public and the Environment*, requires the establishment of approved authorized limits and independent verification of the radiological condition of a property before it can be released from DOE control [4].

CERCLA Environmental Condition Documentation

FOST: A FOST documents that the property is environmentally suitable for transfer by deed under CERCLA and US Department of Defense FOST guidance. The FOST process was developed to meet the statutory and regulatory requirements associated with transferring federal real estate. A FOST must demonstrate either that the property is uncontaminated or that all necessary remediation has been completed or is in place and operating properly and successfully. These demonstrations are necessary to support the deed covenant required by CERCLA Section 120(h) attesting that all remedial action necessary to protect human health and the environment has been taken.

FOSET: A FOSET documents the suitability of the property for early transfer by documenting the environmental suitability and appropriate land-use controls. Approval may be a lengthy process, particularly for an NPL site. Both EPA and the state governor must concur on the early transfer approval; the transfer cannot occur until the CERCLA guarantee (covenant) is explicitly deferred by EPA and the state.

To accomplish site disposition and proposed redevelopment goals and to support redevelopment schedules, innovative regulatory strategies were implemented. To achieve the required environmental documentation in support of the NPL-listed property disposition, EPA and NJDEP agreed to the use of a FOST and FOSET in conjunction with the proposed site subdivision. EPA approved the FOST that documents that the southern portion of the property is environmentally suitable for transfer under CERCLA Section 120(h), as all remedial actions are complete on the southern portion of the site. The FOST was finalized in March 2020 and required the subdivision of the MSP in order to accelerate transfer of the southern portion. The FOSET was used for the northern portion, where the groundwater remedy is being implemented. The FOSET was finalized in June, 2023. Figure 3 shows the new parcels in relation to the proposed site redevelopment.

With the FOST complete, LM proceeded to grant an easement to the borough to construct a public road across the property that supported future property disposition and adjacent development but will also enhance traffic safety in the area and support the borough's plan to revitalize the area. Figure 4 provides a current aerial view of the site after completion of the public road and adjacent warehouse.

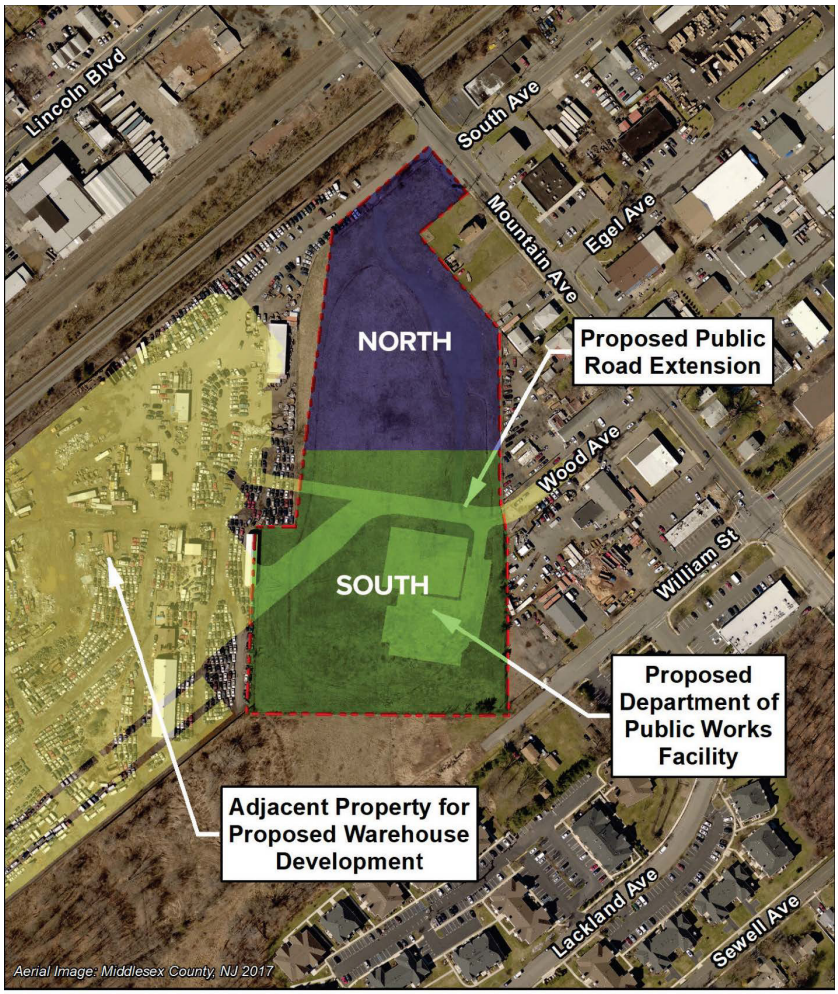

Figure 3. Middlesex South, New Jersey, Site Proposed Redevelopment.

Figure 4. 2023 Aerial View of the Site.

RISK MITIGATION

The multiagency reuse team demonstrated innovative thinking and flexibility, ensuring that the project continued to make progress as challenges arose. Examples include the team effort to gain successful procurement of the final road alignment for the public road easement while adhering to the borough's ordinance approval schedule. Claremont Development supported several iterations of the road's location and alignment design, while staying in constant communication with the other team members to keep them apprised of potential changes and associated issues. The initial design and draft easement language were based upon the use of Williams Street, along the southern property boundary. Wood Avenue, further north, was retained as a backup access point. Ultimately, the Williams Street option was abandoned due to lack of cooperation by the neighboring town, which denied the proposed heavy truck traffic access to its portion of Williams Street.

Pivoting to the backup option of Wood Avenue required a new survey, a modified drawing to show the property subdivision line, a new strategy for intersection and monitoring well avoidance, and a new legal description. To create an adequate and safe alignment for this option, Claremont Development also purchased additional properties along Mountain Avenue to accommodate this new configuration.
The borough's ordinance process requires two readings of the ordinance before adoption. To reduce schedule impacts, both public road options were initially provided in the easement package while Claremont Development negotiated with the nearby municipality. This dual process allowed the second reading to occur as scheduled in September 2020, even with a change in road locations, and eliminated the need for a new ordinance. The public road easement ordinance was passed on September 8, 2020.

TRANSFER MECHANISMS

LM coordinated with GSA to facilitate the process of property disposition (Figure 5). Under the Federal Property and Administrative Services Act, GSA is required to first screen the property to other federal agencies that may have a programmatic need for it. If there is no expressed interest within 30 days, the property is determined to be "surplus" and is made available to providers for the homeless population. The US Department of Housing and Urban Development (HUD) determines whether the property is suitable for the homeless; GSA has no discretion. The suitability determination is published on the HUD Exchange for 60 days. GSA will conduct a

surplus screening for the property that is combined with the HUD information. Properties are made available for public uses based upon the highest and best use and always for a negotiated sale. Public bodies (state and local government agencies) and, in some cases, nonprofits may obtain surplus federal real property at up to a 100% discount under certain Public Benefit Conveyances (PBCs).

GSA's initial screening of the MSP received no interest from other federal agencies. After GSA notified the New Jersey governor's office, the New Jersey congressional delegations, Middlesex County, and the borough of the surplus screening and the property's availability for an emergency management PBC, the borough submitted a letter of interest. Under the emergency management PBC, the Federal Emergency Management Agency (FEMA) is the sponsoring agency, and the borough is required to fill out an application outlining its plan to use the property for emergency management purposes in perpetuity. FEMA approved the borough's application on June 23, 2022.

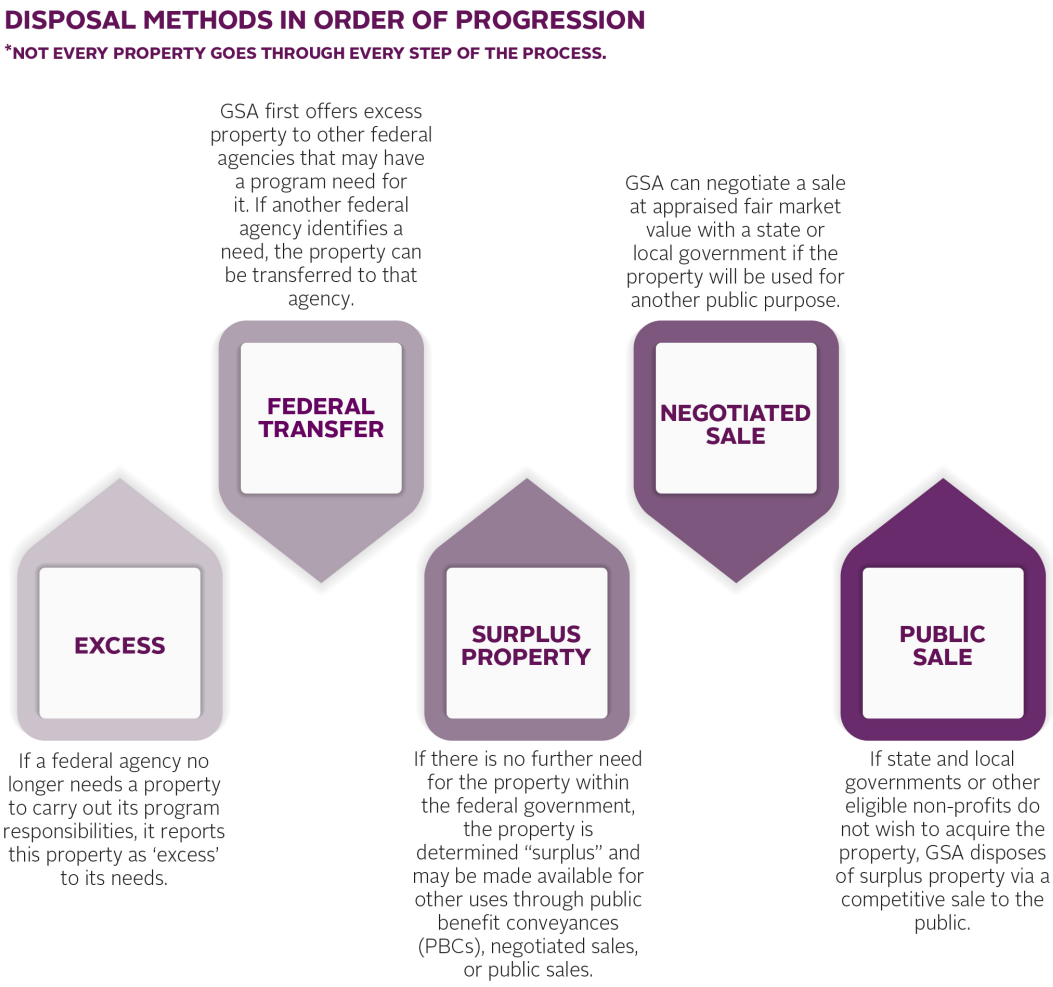

Figure 5. GSA Disposition Process.

CONCLUSION

DOE and its predecessor agencies have had a presence in the borough for almost 80 years, from the operation of the MSP to site and vicinity property remediation. The MSP beneficial reuse project provides

an opportunity to assist the borough and the local community in addressing community reuse and economic redevelopment concerns and expectations.

This successful government property redevelopment fulfills many objectives for the entities involved:

- The property transfer of the MSP to the borough results in the transformation of a vacant lot for local government use, thereby increasing the tax base and supporting adjacent redevelopment efforts.
- The MSP property redevelopment supports DOE's strategic objective of beneficial reuse by the reuse of a great deal of underutilized formerly contaminated land, providing a much-needed asset to the community. The redevelopment of federal property starts with the right-of-way easement. The adjacent property redevelopment would not be possible without that first step.
- Claremont Development gains safe roadway access in support of the warehouse development through the borough obtaining the DOE easement for public road construction.
- EPA's objective of promoting innovative, cost-effective cleanups is achieved by the approval of a unique regulatory strategy required for property transfer.
- NJDEP's goal of reducing the threat of contamination to the public and the environment is met by supporting accelerated disposition of vacant, underutilized property and redevelopment of the adjacent contaminated site.
- USACE ensures that the cleanup is protective of human health and the environment, and supporting the accelerated transfer of the property helps return the site to industrial land use.
- GSA achieves its strategic goals of property disposition and reducing the cost of managing federal inventory.

REFERENCES

1. US Environmental Protection Agency, "Environmental Justice," https://www.epa.gov/environmentaljustice (September 6, 2023), accessed October 2023.

2. 42 USC 9601 et seq., "Comprehensive Environmental Response, Compensation, and Liability Act," *United States Code*.

3. DOE Order 430.1C Chg 2 (AdminChg), *Real Property Asset Management*, US Department of Energy (September 17, 2020).

4. DOE Order 458.1 Chg 4 (LtdChg), *Radiation Protection of the Public and the Environment*, US Department of Energy (September 15, 2020).