

Best Practices to Ensure State Collaboration in Superfund



**ASTSWMO Remedial Action Focus Group
February 2022**

Acknowledgements

This document was prepared by the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Remedial Action Focus Group (RAFG), with assistance from the U.S. Environmental Protection Agency (EPA) under Cooperative Agreement (CA) RT-83870001.

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The Remedial Action Focus Group would also like to express its appreciation to the following individuals who aided during the development of this report:

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Executive Summary

The mission of the Association of State and Territorial Solid Waste Management Officials (ASTSWMO) Remedial Action Focus Group (RAFG) is to research issues associated with the remediation of hazardous substances at State and Territorial (States) and federal Superfund sites and the infrastructure development needs of these State programs. This mission includes providing States with the information, research tools, and training necessary to develop and enhance their programs, and to carry out their responsibilities in the federal Superfund program. ASTSWMO and its various focus groups actively evaluate the potential impacts and relevance of Superfund program issues to the States and works closely with United States Environmental Protection Agency (EPA) staff to identify priority issues and approaches to resolving those issues.

The 2018-2022 EPA Strategic Plan¹ established cooperative federalism as one of the Agency's main goals and priorities. Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, provides several avenues for State involvement in the clean-up process. These avenues include but are not limited to:

- CERCLA § 104(c)(2) – the President is required to “consult with the affected State before determining any appropriate remedial action to be taken” under Section 104(a).
- CERCLA § 104(c)(3) – the State is required to first provide certain assurances before the EPA can perform fund-lead remedial action.
- CERCLA § 104(d) – States may carry out removal or remedial actions authorized pursuant to Section 104.
- CERCLA § 121(f)(1) – requires the President to promulgate regulations providing for the substantial and meaningful involvement by each State in the initiation, development, and selection of remedial actions to be undertaken in that State.
- CERCLA § 121(f)(2) – requires (for consent decrees) the President to give the State an opportunity to concur or not concur in the selection of a remedial action that does not attain a State legally applicable or relevant and appropriate standard, requirement, or criteria (ARAR). It also provides that, if the State does not concur and the State wants the remedial action to attain such ARAR, the State can intervene in the action before entry of the proposed consent decree.
- CERCLA § 121(f)(3) – relates to remedial actions taken at federal facilities and requires the President to seek the State's concurrence on the proposed action if it does not attain State Applicable, Relevant, and Appropriate Requirements (ARARs). If the State does not concur, the State may bring an action to determine whether the President's decision is supported by substantial evidence.

¹ <https://www.epa.gov/sites/production/files/2019-09/documents/fy-2018-2022-epa-strategic-plan.pdf>

The Superfund Task Force was commissioned on May 22, 2017, to provide recommendations on how the Agency could restructure the cleanup process, realign incentives of all involved parties to promote expeditious remediation, reduce the burden on cooperating parties, incentivize parties to remediate sites, encourage private investment in cleanups of sites, and promote the revitalization of properties across the country. On July 25, 2017, the EPA Superfund Task Force Report identified 42 recommendations to accelerate cleanup and reuse of Superfund sites. EPA convened workgroups and developed implementing tasks for each of the recommendations. The Task Force workgroups identified effective ways to implement the recommendations and reach outcome-driven results to expedite cleanups, site redevelopment, and community revitalization while protecting human health and the environment.

The ASTSWMO RAFG has prepared this document as a resource for States as they coordinate with EPA on Superfund site characterization and cleanup. There are over 1,300 ²Superfund sites on the National Priorities List (NPL) in different phases of cleanup from site characterization to post-cleanup monitoring and site reuse. In an effort to draw upon the long history of coordination between States and EPA on activities at NPL sites, the RAFG solicited feedback from States on their experiences to develop the Best Management Practices outlined in this document.

To gather information on this topic, the RAFG asked a series of questions to State representatives including:

1. What has been your experience coordinating with EPA on Superfund site activities in your States?
2. Have you developed any best practices or would you like to share any lessons learned on coordinating with EPA?
3. Have you received special funding through cooperative agreement grants for State assistance and if so, for what kind of activities?
4. Has your State assumed a leadership role in any aspects of NPL site cleanup in your State?
5. What opportunities or barriers do you see for increased State participation?

In 2020, the RAFG received detailed responses from 30 States representing nine of the ten EPA regions. The RAFG received responses to the series of questions along with recommendations from the participating States on how they thought collaboration between the States and EPA could be improved. The RAFG appreciates this feedback from States and the thoughtful responses that were provided. A summary of State responses and several case studies that demonstrate U.S. EPA/State collaboration in practice are provided in the following sections. A listing of the full State responses can be found in Appendix A. State responses have been assigned a number and States with multiple responses are denoted by a letter following the number.

² <https://www.epa.gov/superfund/superfund-national-priorities-list-npl>

State Responses

Overall, States provided detailed accounts of their interactions with EPA on NPL site cleanups including what worked, what did not work, lessons learned, and changes to standard practices based on their experiences. Nearly every State that responded indicated they had a good working relationship with EPA and good experiences regarding NPL site work in their State. In cases where working relationships were strained, it was typically due to individuals or specific site circumstances that may have been limited to one site or one situation. In general, fostering collaborative working relationships over time throughout the lifespan of any given project reaps benefits for all involved as issues can be worked out in a more amicable fashion. The State responses indicated a strong desire to continue improving their working relationships with EPA.

One common theme in all of the State feedback was communication. Communicating early on in a project, communicating often, and establishing regular meetings seems to provide great benefit to both States and to EPA, specifically:

- Regularly scheduled meetings between States and EPA allow for frequent communications and helps establish and foster good working relationships. Occasional in-person meetings and site visits were also cited as helpful.
- Providing more opportunities for involvement in the investigation planning and remedy selection processes.
- Methods of tracking document submittals, comments, and issues help both States and EPA to use their time effectively during regular meetings.
- Sharing draft communications (press releases and talking points for meetings) ahead of time before finalizing helps States and EPA prepare their teams for upcoming site issues and helps build trust between parties. An example is that Region 7 has been sharing draft presentations and having virtual dry-runs prior to the Remedy Coordination & Management Review Process meetings and public availability sessions.

A summary of State responses to the 5 questions asked by the RAFG is provided below.

- What has been your experience coordinating with EPA on Superfund site activities in your State?

Overall, the responses received from the States indicated a good experience while coordinating with EPA on Superfund sites. Many of the responses indicated that the experience improved as the working relationship between the State project manager and the EPA remedial project manager developed. Some States indicated they had experienced issues while coordinating with EPA and the common reason was a specific project manager – remedial project manager relationship, and not indicative of an overall issue. The level of coordination at some sites was related to the extent of activities being conducted at sites where active investigation was underway for a Remedial Investigation/Feasibility Study (RI/FS), the States saw more interaction

with the EPA RPM. Sites where few activities were occurring saw minimal coordination efforts. Other States expressed concerns regarding the degree to which their input was taken into consideration during responsible party negotiations and prior to final settlement action. EPA has consistently demonstrated its commitment to working collaboratively with States and any concerns regarding States involvement in enforcement actions should be addressed in management level meetings with EPA.

- Have you developed any best-practices, or would you like to share any lessons learned on coordinating with EPA?

Several of the State responses identified some best practices which were beneficial in improving collaboration between the State and EPA. Some of the best practices included the establishment of regular meetings between the EPA and the State which included both project level staff as well as management. The regular coordination meetings served two functions: a series of checks & balances on project progress; and ensuring both EPA and State management were regularly updated on project activities. States in Region 7 identified a *Draft Superfund and Emergency Management Review Procedures for Remedial Site Planning and Decision-Making Memorandum* that outlines several options to improve collaboration between the States and EPA and identifies many places in the Superfund process to include State collaboration.

- Have you received special funding through cooperative agreement/grants for State assistance and if so for what kind of activities?

States identified the Core, Pre-Remedial, and Support Agency (Management Assistance) cooperative agreements as sources of funding for States to serve in the support role for federal lead Superfund sites.

- Has your State assumed a leadership role in any aspects of NPL site cleanup in your State?

Many of the States responding identified sites where the State assumed a leadership role for the NPL cleanup. Some States indicated that the lead role was limited to a specific phase of the NPL cleanup such as completing the RI/FS or remedial design. Other States indicated that they had sites where the State served as lead agency for the entire NPL cleanup process. Responding States indicated that they preferred to be in the lead role as it gave the State more control during the completion of the clean-up phases and allowed the clean-up to proceed at a faster pace. For further information, please see Appendix A, specifically question 3A.

- What opportunities or barriers do you see for increased State participation?

Many States identified funding as a controlling factor on the ability to actively collaborate with EPA. Several responses identified limited staff resources as a factor impacting their ability to collaborate. Another barrier identified is the frequent change to project management level staff resulting in new staff having to re-learn sites and re-build the working relationship between the State and EPA.

Additional Opportunities for Coordination Between States and EPA

ARARs and To-Be Considered (TBC) advisories have often been identified as issues between the States and EPA during implementation of the remedial action. Increasing opportunities for meaningful communication between the States and EPA will assist in reducing the occurrence of disagreements over ARARs and TBCs. In October 2017, EPA OSRTI issued the memorandum “Best Practice Process for Identifying and Determining State Applicable or Relevant and Appropriate Requirements Status Pilot”³. The memorandum identified best practices that the States and EPA may use to “ensure meaningful and substantial” State involvement when identifying ARARs and TBC advisories for CERCLA remedial actions. The overall goal of the best practices process memorandum is to identify ARARs and TBCs as early as possible in the remedial process and identifies structured opportunities in the process for development of written statements of position, documentation of agreement, and options for dispute resolution.

The scoping meeting for the RI/FS provides additional opportunity for States and EPA to identify potential chemical- and location-specific ARARs and TBCs in advance of the statutory requirement in the National Oil and Hazardous Substances Contingency Plan (NCP) to provide the foundation for data screening, identification of ecological and natural resources, and formation of preliminary remedial goals. Identification of the ARARs and TBCs in advance of the statutory requirement allows the State and EPA additional opportunity to address the resolution of any disagreements. Action-specific ARARs and TBCs are finalized during the detailed analysis of the alternatives during the Feasibility Study.

A State Memorandum of Agreement (SMOA) is another option for developing a better relationship between the State and EPA as it is an “effective management tool and leads to a more effective EPA/State partnership through better defining roles and distributing responsibilities according to each party’s resources and experience” (see 3rd footnote below). The SMOA establishes expectations that improve the working relationship a working relationship between the State and EPA and helps protect all parties’ interests without introducing excessive administrative procedures or delay. The SMOA can assist by (1) defining interaction requirements, including document review time frames; and (2) establishing a dispute resolution process.

Case Studies

The RAFG conducted follow-up with several States on their responses to develop the case studies below that demonstrate some of these Best Practices and EPA and State collaborative efforts in action at NPL sites across the country.

³ *Best Practice Process for Identifying and Determining State Applicable or Relevant and Appropriate Requirements Status Pilot*, EPA, October 2017: <https://semspub.epa.gov/work/HQ/197017.pdf>

Case Study #1-Tulsa Fuels, OK

Background

The Tulsa Fuel & Manufacturing (TFM) Superfund Site is an abandoned 60-acre former zinc smelter and lead roaster, located outside the city limits of Collinsville, Oklahoma. TFM operated from 1914 to 1925, and as a result of its operations, heavy metals (lead, cadmium, and arsenic), and waste debris were deposited on-site into soil and surface water/sediment. Groundwater and air were not impacted.

The site was added to the NPL in 1999. The 2008 ROD & 2015 ROD Amendment Selected Remedy required the following: meet residential standards for reuse for lead, cadmium, and arsenic, both on-site and at adjacent parcels to north, west, and southeast; excavate and dispose of/consolidate contaminated soil, sediment, and waste into a capped containment cell; and dewater and treat surface water before discharging clean effluent. Engineering controls for stormwater and Institutional Controls were also required.

Remedial Action

During the TFM Remedial Investigation, the Oklahoma Department of Environmental Quality (ODEQ) determined some residential yards would require removal actions. ODEQ coordinated with EPA's removal program to sample additional yards. The EPA and ODEQ realized a collaborative opportunity to work with the Collinsville Smelter potentially responsible party (PRP) to enter into a consent decree. The PRP conducted the yard removals under the State Voluntary Cleanup Program, saving the EPA time and money. The yard removals were completed separately from the Superfund Remedial Action (RA). The remainder of the cleanup was conducted under a Cooperative Agreement with the EPA.

The RA began in August 2014, and construction mobilization began in June 2015. Cleanup concluded in August 2016, and the RA ended in September 2016. ODEQ removed the waste material and placed it into a constructed on-site disposal cell. The disposal cell was capped and vegetated. Additionally, groundwater monitoring wells, fencing, and signage were installed around the perimeter of the disposal cell. Periodic monitoring and inspections are being performed to ensure continued protection of human health and the environment.

The on-site disposal cell consists of approximately 186,000 cubic yards of waste and a three-foot, vegetated soil cap. Drainage features have been added to assist in erosion control during heavy rainfall events. Samples of soil, sediment, water, and air were collected throughout the cleanup to ensure protection of human health and the environment. Additionally, harvesting of wild blackberries in the area is of cultural significance to a local Native American tribe, and sampling confirmed the berries were contaminated with lead dust from the smelter. ODEQ coordinated with EPA and their risk assessors about the best way to present the results to the priority panel to position the site for RA funding.

Land Re-use and Collaboration with EPA

ODEQ coordinated with EPA Region 6's re-use coordinator, and both agencies were able to work to address ecological issues with the landowner to re-establish vegetation by applying composted chicken litter. The site is a great example of successful land re-use as numerous bird species frequent the site, especially the flooded former strip mine pit; there are over two dozen honeybee hives which provide critical habitat for threatened pollinators, and the hives yielded over 1,200 pounds of honey in July 2020. The site received EPA's Region 6 Greenovations Award in 2019, recognizing excellence in supporting safe and responsible cleanup and re-use.

Case Study #2-Joray-Kachina, AZ

Background

The Joray-Kachina facility is located within and is a sub-site of the Motorola 52nd Street Superfund Site in Phoenix, Arizona. The facility operated from the early 1980s to the late 1990s as an inspection and testing facility for aerospace materials on several leased parcels of land. The Joray Corporation (Joray) ceased operations in 1999 and dissolved in 2000. Joray sold its aerospace materials business to Kachina Technical Services and Process in 1999, which conducted similar operations on the property until 2004. During the time of operations, the facility used a wide variety of chemicals that contained volatile organic compounds (VOCs), metals, and other hazardous substances. Site characterization in areas of historical operations confirmed releases to the soil and groundwater.

The Arizona Department of Environmental Quality (ADEQ) issued a Unilateral Administrative Order (UAO) in 2005 to Joray pursuant to the authority vested in the Director of ADEQ under the Arizona Revised Statutes. The UAO required Joray to undertake certain Remedial Investigation, sampling, testing and/or other information gathering activities to abate the actual or threatened release of hazardous substances.

After issuance of the UAO, Joray dissolved as a corporation. However, Joray was insured through an environmental insurance policy that funded the Remedial Investigation. This insurance carrier accepted the claim on the policy and consequently funded the remedial activities up to the policy limit of \$5,000,000. The policy reached its limit in 2020 for remedial activities. Therefore, another funding mechanism was needed to continue Remedial Investigation and action at the facility.

Interim Removal Action

The ADEQ and EPA Region 9 collaboratively worked with the Responsible Party (RP) overseeing the UAO in addressing the CERCLA related investigations and removal action leading to remedial action. Due to limited funding that was available through the insurance policy, interim removal action (source removal) was prioritized at the site over continued offsite Remedial Investigation. This included implementing an interim removal action of a soil vapor extraction (SVE) system that began operation at the site in 2013. The interim removal action focused on removal of residual

volatile organic compounds (VOCs), primarily tetrachloroethene (PCE), and finalizing the Remedial Investigation.

Other Remedial Investigation activities identified and ongoing during this time were indoor air sampling at the facility and off-site residential indoor air sampling performed on behalf of EPA Region 9. The results did not indicate a vapor intrusion concern at the facility, with the SVE system in operation, and that further indoor air investigation at off-site residential properties was not warranted.

Superfund Multi-Site Cooperative Agreement and Collaboration with EPA

As Remedial Investigation work and operation of the interim removal action continued to result in drawdown of the insurance policy funds, the policy administrator began to express concerns to ADEQ. This began the collaboration and coordination between the State, EPA and insurance policy administrator on critical remedial actions still required in accordance with CERCLA and decisions of how to fund the needed remedial actions when the insurance funds were exhausted. This two- to three-year collaboration and coordination determined how the site would transition from the insurance policy to agency lead and funding.

The coordination events between the State and EPA Region 9 included determining if there was a subsidiary RP, a discussion of lead-agency status following termination of the UAO and evaluating how to prevent delays in conducting further Remedial Investigation work. The State coordinated meetings with the legal teams, RP, and EPA Region 9 to assist in and focus on achieving the common goals needed of decision making. First the agencies determined what actions were still required in accordance with the UAO. Those were then provided to the RP and prioritized as to which actions could be performed with the remaining insurance policy funds. No subsidiaries were identified, and it was determined the UAO would be terminated, and the facility would become an orphan site. This decision allowed EPA Region 9 to obtain pipeline funding from Superfund and to further coordinate ongoing Remedial Investigation activities and interim removal action with the State. This collaboration included amending the State's existing Superfund Multi-Site Cooperative Agreement (MSCA) with EPA Region 9 and funding the remaining work through Superfund. The cooperative agreement provided latitude for the State to contract locally and continue the ongoing activities on behalf of EPA Region 9.

Success Story

The multi-year collaboration and coordination with EPA Region 9 and the RP successfully resulted in full equipment transfer of the SVE system to EPA Region 9, no downtime operation of the SVE system, continued Remedial Investigation work utilizing the full extent of the insurance policy funding, no lag time of transition to the State, and termination of the UAO. The site continues to be overseen by EPA Region 9 and operated by the State and contractor through the cooperative agreement.

Case Study #3- Conroe Creosoting

Background

The Conroe Creosoting Company site is in Conroe, Texas, about 30 miles north of Houston. Wood-treating operations took place at the site from 1946 to 1997. Facility activities and waste management practices contaminated soil, sediment and groundwater with hazardous substances including pentachlorophenol (PCP), copper chromated arsenate (CCA) and creosote. In 2002, EPA started a time-critical removal action of on-site structures and soils. Approximately 252,000 cubic yards of contaminated material, soils, sediments, and solidified wastes were placed inside an on-site Resource Conservation Recovery Act (RCRA) permitted vault.

Remedial Action

The Record of Decision (ROD), signed on September 29, 2003, set forth the selected remedy for the site, which includes monitored natural attenuation of the contaminants in the ground water, no further action for the on-site soils and off-site sediments, long-term maintenance of the RCRA vault, and placement of institutional controls. In 2018, EPA conducted the 3rd Five-year Review (FYR) and determined that the remedy was protective in the short-term. EPA also noted that the non-cancer toxicity value (reference dose) for dioxin had been updated in 2012 and recommended that soil samples be collected and analyzed per the new dioxin standard, a vapor intrusion assessment be performed before new construction, and several groundwater wells be decommissioned.

Bona Fide Prospective Purchaser (BFPP) Agreement Timeline/Summary of Terms

A prospective purchaser (PP) requested a meeting with the Texas Commission on Environmental Quality (TCEQ) and EPA in 2019 to discuss the proposed purchase and redevelopment of the Site. The PP requested assurances/protections in addition to statutory protections. Starting in April 2019, EPA and TCEQ worked collaboratively with the Prospective Purchasers, the U.S. Department of Justice (DOJ), and the Texas Office of the Attorney General and finalized the BFPP agreement in July 2020. The terms of the agreement include PP performs work including some of the items from the 3rd FYR including decommissioning wells, dioxin sampling, and a vapor intrusion assessment; enhancements to the area surrounding the RCRA vault to facilitate State Operations and Maintenance (O&M) work; and payment of State O&M costs. In exchange, the PP received a Covenant Not-To-Sue from EPA and the State for existing contamination as well as contribution protection

Prioritizing Land Re-use and Collaboration with EPA

The extensive collaboration between EPA and TCEQ will result in the transformation of a vacant Superfund Site into a state-of-art distribution facility operated by a Fortune 500 company and will counter the stigma associated with a Superfund site. Additionally, the re-development will provide hundreds of construction jobs for about a year, as well as 50 permanent jobs and long-term ad valorem tax revenues.

Success Story

The site is currently in the process of redevelopment; necessary dioxin work has been performed, and monetary compensation to TCEQ will go directly to the State Superfund program. This site is a great example of TCEQ and EPA as partners for re-use, working collaboratively while protecting State and federal interests.

Case Study #4- Onondaga Lake

Background

Onondaga Lake is in central New York, adjacent to and northwest of the city of Syracuse. The Lake is approximately 1.5 x 4 miles in size and 65 feet deep, lying within a 285 square mile watershed which contains many industrial facilities. The shoreline of Onondaga Lake is encompassed by commercial and municipal properties, including a large portion designated as park land.

From the late 19th to early 20th Centuries, Onondaga Lake supported a thriving lakeside resort industry. In the late 1800s, the Lake became a receptacle for both industrial and municipal waste. The last remaining resort closed in 1938 due to water impacts from sewage and industry. From 1888 to 1986, Allied Signal and its predecessor companies discharged a variety of wastes, resulting in contamination of the Lake sediments and the deposition of an 84-acre in-lake waste deposit.

The Lake was added to the New York State (NYS) Registry of Inactive Hazardous Waste Disposal Sites in 1989. In 1992, a Remedial Investigation/Feasibility Study Consent Decree was established between NYS and Allied Signal (Honeywell) for Onondaga Lake, tributaries impacted by Allied's waste substances, and threat of further contamination from Allied's upland sites. In 1993, the New York State Department of Environmental Conservation (NYSDEC) and EPA entered into a cooperative agreement for the site, with the Lake and upland areas which contributed to contamination being added to the NPL the following year.

The Cooperative Agreement

USEPA provided NYSDEC with funding for several staff positions, equipment, and contractual services. NYSDEC was designated as the lead agency on the NPL Site for several reasons: many State enforcement agreements (including the Onondaga Lake Consent Decree) were already in place; the NYSDEC remedial program was similar to CERCLA; and the NYSDEC had a proven record for performing appropriate cleanups.

NYSDEC also received funding from EPA for development of the Project Management Plan, Site-Wide Risk Assessments, Site-Wide Citizen Participation Program, a Comprehensive Site-Wide Analytical Data Base, and a Comprehensive Enforcement Program. Funding was also received for coordination and tracking of Onondaga Lake remediation, coordination between NYSDEC and the Onondaga Lake Management Conference, and subsite management.

NYSDEC and USEPA reviewed available information to identify various “subsites” associated with the NPL Site that needed to be evaluated. This was primarily done through EPA’s authority to request records under CERCLA Section 104(e). The agencies developed a standardized facility review process for assessing the potential for past, current, or future impacts from these potential upland source areas to the Onondaga Lake system. This resulted in the identification of 11 Onondaga Lake NPL Subsides. Consequently, the NPL Site and its subsides have yielded a complex multi-site cleanup program. Remedial Investigations/Feasibility Studies and Remedial Design/Remedial Action activities have been completed or are underway for all subsides.

Site Remediation

Allied Signal (which became Honeywell in 1999) performed Remedial Investigation field work between 1992 and 2000 for the Onondaga Lake Bottom Subsite. From 2001 to 2002, NYSDEC rewrote the Onondaga Lake Remedial investigation, Human Health Risk Assessment, and Baseline Ecological Risk Assessment due to significant deficiencies with the draft reports. The Record of Decision was finalized for the Lake Bottom Subsite in 2005. The remedy included dredging of approximately 2,653,000 cubic yards of contaminated sediments, capping of an estimated 580 acres, habitat restoration in all remediated areas, and coordination with upland subsite remediation activities to prevent recontamination of the Lake.

The Remedial Design of the Lake Bottom Subsite was finalized in 2012, with dredging beginning the same year. Remedial construction (dredging, capping, and habitat restoration) was completed in 2016, with long-term monitoring beginning the following year.

The remaining 10 upland subsides were mainly associated with legacy contamination, with Honeywell and several other companies also involved in investigation and cleanup at the subsides.

Complexity Associated with a State Lead Status

EPA’s involvement added more complexity than challenges. Navigating the additional rules and paperwork from the EPA seemed proportional to site complexity (that is, if the NPL site had been less complex, following the rules would have also been less complex). While NYSDEC and New York State Department of Health typically generate qualitative Risk Assessments, EPA required quantitative Ecological and Human Health Risk Assessments, which necessitated bringing in outside expertise.

An additional complexity was added when developing the Record of Decision (ROD), which required an understanding and agreement on the process for developing the ROD. In this case, the RODs are developed using the EPA format, and EPA and the State jointly sign the ROD. Another complexity, due to the site being a NPL site, included a presentation by the State to the National Remedy Review Board to ensure remedy consistency with other large NPL sites.

Benefits Associated with a State Lead Status

NYSDEC was made lead agency because they were already working with Allied Signal/Honeywell and consent orders were already in progress. EPA recognized the significant ongoing work and had confidence in the State, leading to collective benefits. The State was able to maintain a local presence in the community, and therefore was able to gain and maintain the public's trust. Having a local presence also benefited the State in engaging with and building partnerships with local entities.

As a result of prior experience, NYSDEC was prepared to handle both the legal and technical issues involved with taking State-lead action. State requirements and policies were easily incorporated into all aspects of the remedial program. A State agency has a better awareness of State and local regulatory actions that may impact the NPL Site. While New York State held the lead on enforcement, the option for federal enforcement was available for uncooperative responsible parties. Two challenges which were brought by the Responsible Party were won in court by the State without need of federal intervention.

Lessons Learned

It is critical to thoroughly describe the specific roles of each agency through, for example, a Cooperative Agreement or Memorandum of Understanding.

NYSDEC found benefit in managing the project and communicating in a similar manner as when working with other State agencies and divisions, and EPA reciprocated. Establishing a professional relationship early in the process led to both agencies holding a mutual respect for each other's positions on issues. The overall experience was collaborative, without any politicking or power plays. EPA respected NYSDEC as the technical lead; EPA would send comments and suggestions but did not insist on approval of every comment letter or communication before distribution.

If a State is going to take on a technical lead position for a NPL site, it should be certain it has access to resources in terms of staffing and expertise. At the height of project, in addition to the 20+ New York State personnel working on the project across multiple agencies, New York had about 12+ personnel from consultants working roughly half to full time to supplement the State's efforts on Ecological and Human Health Risk Assessments and modeling.

Success Story

Dredging activities removed approximately 2.2 million cubic yards of contaminated material, and capping included the application of 3.1 million cubic yards of cap material over 475 acres. An increased population of bald eagles around Onondaga Lake is indicative of improved fish populations and recreational opportunity. NYSDEC is in the process of entering the Site Management phase, anticipated to begin November 2021.

Conclusion

As identified by States in their responses to the RAFG and demonstrated in the case studies; proactive coordination with EPA and other parties can provide many benefits at complex sites allowing for re-use and redevelopment to the benefit of all parties. Frequent communication, including the use of regularly scheduled project calls, was identified as an important tool to ensure coordination between the region and States. Thinking ahead and evaluating the site for potential issues is another common theme, and States encourage that if something is identified in the evaluation of the site, those should be resolved early in discussions so that delays do not take place later in the site cleanup. Development of professional relationships between the Remedial Project Managers and the State Project Managers appears to be instrumental in facilitating coordination between the States and regions.

Appendix A: State Responses