



January 2019

SUPERFUND

EPA Should Improve the Reliability of Data on National Priorities List Sites Affecting Indian Tribes

Accessible Version

Why GAO Did This Study

Superfund is EPA's principal program to address sites with hazardous substances, and some of the most seriously contaminated of these sites are listed on the NPL. Many of these sites can affect Indian tribes or their land. EPA has a policy to consult with tribes when EPA actions or decisions may affect tribal interests, including on cleanup of NPL sites that are on tribal property or that affect tribes.

GAO was asked to analyze NPL sites that are on tribal property or that affect tribes and EPA's consultation with tribes at these sites. This report: (1) examines the extent to which EPA has reliable data identifying NPL sites that are located on tribal property or that affect tribes, (2) examines the extent to which EPA has reliable data on the agency's consultation with tribes regarding NPL sites, and (3) describes the actions EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at Superfund sites. GAO reviewed laws and policies, assessed EPA data on NPL sites, and interviewed EPA and tribal officials about cleanup actions and consultations at six non-generalizable NPL sites selected in part for their geographic diversity.

What GAO Recommends

GAO is making four recommendations to EPA, including that it take actions to improve the data it collects and to clearly define circumstances under which consultation with tribes should be considered. EPA generally agreed with GAO's recommendations.

SUPERFUND

EPA Should Improve the Reliability of Data on National Priorities List Sites Affecting Indian Tribes

What GAO Found

The Environmental Protection Agency (EPA) does not have reliable data identifying National Priorities List (NPL) sites that are located on tribal property or that affect tribes. Specifically, EPA collects data on whether sites are on tribal property or have Native American Interest (a data variable indicating sites where tribal members or tribal land would be directly affected by the release of hazardous substances), as well as which tribes are associated with NPL sites. However, EPA's data are not always accurate or complete for a number of reasons. For example, EPA can have difficulty identifying some tribal property boundaries, and NPL site boundaries may evolve as the site is investigated and remediated. EPA does not have a regular review process for its data on whether an NPL site is on tribal property. In addition, EPA's guidance for determining whether a site has Native American Interest is unclear, and regions may not interpret it consistently. Without improving its review process and clarifying its guidance, EPA will not have reasonable assurance that its data on tribes that are affected by NPL sites are accurate or complete.

EPA consults with tribes when actions at an NPL site may affect tribal interests, but the agency does not have reliable data on its consultations with tribes. Data from EPA's system for tracking consultation did not include documentation of some consultations that GAO confirmed had occurred. One possible reason that EPA data are incomplete is that the agency's policy is unclear on which interactions are considered consultation and are therefore to be documented in EPA's system of record, which is not consistent with federal standards for internal control. EPA's policy provides a broad definition of consultation and specifies which staff are responsible for determining when consultation may be appropriate. However, the policy does not provide further guidance on the circumstances under which consultation should be considered. For example, it does not specify any specific points in the hazardous substance cleanup process at which consultation should be considered or provide further detail on which tribal interests should be considered when determining if tribal interests on NPL sites are affected. Without clarifying guidance to clearly define circumstances under which consultation with tribes should be considered, EPA cannot have reasonable assurance that it is applying its consultation policy consistently.

EPA has taken various actions to address the unique needs of tribes when making decisions about cleanup actions. These actions include minimizing tribal members' exposure to contaminants because of tribal lifestyle (e.g., greater consumption of local fish and game) and limiting potential damage to culturally important sites. For example, EPA officials said that at one site, they altered the design and route of the roads used to remove contaminated materials to minimize the impact of cleanup activities' on cultural resources. EPA also published a memorandum in 2017 with recommendations on considering tribes' traditional ecological knowledge in the cleanup process if tribes offer it.

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Abbreviations list

CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
EPA	Environmental Protection Agency
NAI	Native American Interest
NPL	National Priorities List
PCB	Polychlorinated biphenyls
SEMS	Superfund Enterprise Management System
TCOTS	Tribal Consultation Opportunity Tracking System

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January 23, 2019

Congressional Requesters

Releases of hazardous substances into the environment can create significant risks to human health and the environment, and Indian tribes can face unique challenges associated with exposure to such substances.¹ According to the Environmental Protection Agency (EPA), more than 300,000 Indians—roughly 12 percent of the approximate total Indian population of the United States—live within 3 miles of a site that has released or may release a hazardous substance. For example, in upstate New York, elevated levels of polychlorinated biphenyls,² which were released into the St. Lawrence and Grasse Rivers by an aluminum manufacturing facility and an aluminum die casting plant, have posed a threat to the health and traditional cultural practices of members of the Saint Regis Mohawk Tribe since at least 1954, according to officials from the tribe. According to these officials, fish consumption restrictions associated with the contamination in the St. Lawrence and Grasse Rivers disrupted the tribe’s subsistence lifestyle and the role that fishing plays in tribal members’ lives.³ In addition, in 2014, we reported that for more than 30 years, the Navajo people have lived with the environmental and health effects of uranium contamination resulting from the extraction of millions

¹For the purpose of this report, we focus only on federally recognized Indian tribes. We use the term “tribe,” to refer to a “federally recognized Indian tribe.”

²Polychlorinated biphenyls (PCB) were developed in the 1940’s and used extensively in the manufacture of heat transfer devices, such as transformers and capacitors, through the late 1970s. PCBs are a group of chemicals that have extremely high boiling points and are practically nonflammable. Because of this, they were used extensively as heat transfer fluids in transformers and capacitors. In 1979, their manufacture and importation was banned in the United States, based on mounting evidence that they were toxic to humans and wildlife. Today they are classified as probable human carcinogens and are listed in the top 10 percent of EPA’s most toxic chemicals.

³The Saint Regis Mohawk Tribe issued a fish consumption advisory in 1986 limiting the consumption of fish from any body of water in or around the Saint Regis Mohawk reservation. Additionally, the New York State Department of Health issued a fish consumption advisory in 1990 that indicated that no fish in the area should be eaten. This advisory is updated annually and, as of April 2017, the advisory to consume no fish from the mouth of the Grasse River to the Massena Power Canal—an area near the aluminum product manufacturing facility—remains in effect.

of tons of uranium ore from mines on the Navajo reservation to support the development of the U.S. nuclear weapons stockpile.⁴

The federal government's principal program to address sites with hazardous substances—the Superfund program—was established by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 and is administered by EPA.⁵ EPA assesses contaminated sites using a Hazard Ranking System that considers several factors, such as exposure pathways, to determine a site's relative threat to human health or the environment. Sites with sufficiently high scores under this system are eligible to be proposed for listing on the National Priorities List (NPL), which includes some of the most seriously contaminated sites that EPA identifies for long-term cleanup. After a site is listed on the NPL, or a release or threatened release of a hazardous substance is identified, EPA or a potentially responsible party can begin the multi-phase remedial cleanup process,⁶ which we refer to as cleanup actions. Potentially responsible parties are liable for conducting or paying for the cleanup of hazardous substances.⁷

In certain circumstances involving Superfund sites, EPA is required or directed to consult with federally recognized Indian tribes. Specifically, for Superfund sites on land where a tribe has jurisdiction, CERCLA requires EPA to give tribes “substantially the same treatment as a state” for,

⁴GAO, *Uranium Contamination: Overall Scope, Time Frame, and Cost Information Is Needed for Contamination Cleanup on the Navajo Reservation*, [GAO-14-323](#) (Washington, D.C.: May 5, 2014).

⁵Pub. L. No. 96-510, 94 Stat. 2767 (1980) (*codified as amended at* 42 U.S.C. §§ 9601 – 9675). EPA's program under CERCLA is better known as “Superfund,” because the law established a trust fund that is used to pay for, among other things, remedial actions at nonfederal sites on the NPL. Under Superfund's remedial program, EPA implements various processes to determine the need for and to conduct or oversee cleanup operations at NPL sites. EPA's remedial program works closely with states, tribes, and communities in cleanups and enhancement of response capabilities of states and tribes, among other things.

⁶Under CERCLA, potentially responsible parties generally include current or former owners or operators of a site or the generators and transporters of the hazardous substances.

⁷Cleanup costs for which potentially responsible parties are liable include the cost of conducting remedial investigations and feasibility studies and implementing the selected remedy, such as extraction, treatment, and containment of the hazardous substance. In addition, potentially responsible parties are liable for damages related to the loss, injury, or destruction of natural resources, such as land, water, and air and the costs of certain health assessments or effect studies.

among other things, consultation on remedial actions. In addition, in 2011, EPA issued a general, agency-wide policy for consultation and coordination with tribes when EPA actions and decisions may affect tribal interests. The policy outlines a four-phase consultation process that includes EPA notifying tribes sufficiently early in the process to allow for meaningful input by tribes and providing formal, written feedback explaining how EPA considered tribes' input in its final action.

You asked us to examine Superfund sites that are located on tribal property or that affect tribes, and EPA's consultation with tribes regarding cleanup actions at these sites. This report (1) examines the extent to which EPA has reliable data identifying NPL sites that are located on tribal property or that affect tribes, (2) examines the extent to which EPA has reliable data on the agency's consultation with tribes regarding NPL sites, and (3) describes what actions, if any, EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at NPL sites.

To examine the extent to which EPA has reliable data identifying NPL sites that are located on tribal property or that affect tribes, we obtained EPA data on NPL sites currently proposed, final, or deleted,⁸ that (1) EPA data indicate are associated with Indian tribes, (2) the agency has determined to have Native American Interest (NAI),⁹ and (3) EPA officials told us may be within 10 miles of tribal property.¹⁰ We limited our review to NPL remedial cleanup sites—proposed, final, and deleted—because they represent sites with the highest national priority due to the

⁸EPA provided data from the Superfund Enterprise Management System (SEMS) on sites with Native American Interest (NAI), sites on tribal property, and sites with an associated tribe. In some cases, the SEMS data did not have an associated tribe for sites with NAI, and EPA used a publicly available database to add tribes known to have interest in the sites to the data they provided us. Additionally, EPA provided information on each site's approximate distance to tribal property based on site boundary data, tribal boundary data, and information from EPA's Environmental Data Gateway. According to agency officials, these data were intended to help provide quality assurance for SEMS data. Officials told us that this proximity data had not been confirmed for accuracy and is not sufficiently reliable to report.

⁹EPA identifies a site as having NAI if EPA regional officials determine that the site may be of interest to one or more Native American entities whose members or land are directly affected by a release from the site.

¹⁰EPA officials told us they approximated the distance of NPL sites to tribal property by comparing the sites' geographical coordinates to tribes' geographic locations as recorded in EPA's Environmental Data Gateway.

significance of releases, or threatened releases, of hazardous substances.¹¹ To assess the reliability of EPA's data, we worked with officials from EPA headquarters and each of its 10 regional offices to perform data quality checks and identify any errors or omissions. We also interviewed EPA officials about selected sites of interest that, according to EPA, may be located within 1 mile of tribal property, but that EPA had not identified as having NAI. Additionally, we reviewed documents and interviewed officials from EPA headquarters and regional offices to better understand the agency's management and use of the database of record for collecting and maintaining data on all Superfund sites, the Superfund Enterprise Management System (SEMS). We worked with agency officials to correct errors in order for us to report on the number of NPL sites known to be on tribal property or that affect tribes as of December 2017, and we identified 87 sites of the total 1,785 NPL sites that were proposed, final, or deleted at that time. In addition, in their comments on a draft of this report, the Confederated Salish and Kootenai Tribes of the Flathead Reservation identified an additional site that was not included in EPA's data, bringing the total to 88 NPL sites known to be on tribal property or affect tribes. We recognize there may be additional sites that may be of interest to tribes; however, we determined that the data were sufficiently reliable for the purpose of providing information on NPL sites known to affect tribes or to be located on tribal property. Appendix I provides information on and cleanup status for these 88 sites.

To examine whether EPA has reliable data regarding its consultation with tribes about NPL sites, we reviewed data from EPA's Tribal Consultation Opportunity Tracking System (TCOTS) regarding consultations that had taken place since 2011 and related agency documentation, interviewed knowledgeable agency officials, and compared TCOTS data with other data EPA provided on tribal consultation in support of our first objective. We worked with agency officials to correct errors and omissions to reach a final set of data that were sufficiently reliable to report, as of May 2018. These data provide the total number of consultations that EPA officials have had with tribes regarding NPL site cleanup decisions since 2011. We also interviewed EPA headquarters and regional officials to obtain their perspectives on how and when EPA consults with tribes.

¹¹EPA considers Superfund sites to be eligible for deletion from the NPL when the agency determines that no further response actions are appropriate under CERCLA. To make this determination, EPA considers whether all appropriate response actions have been implemented, if no further cleanup is appropriate, or if the remedial investigation indicates that no remedial measures are necessary to protect public health or the environment.

In addition, using the number of NPL sites known to be on tribal property or affecting tribes that we developed for objective one, we selected a nonprobability sample of six final or proposed NPL sites to use as case studies.¹² We selected these sites to reflect different EPA regions, listings on the NPL before and after EPA's 2011 consultation and coordination policy went into effect, and sites that have had at least two assessments or inspections performed, according to EPA data. While we selected six NPL sites EPA has identified as affecting tribes or located on tribal property, our interviews with tribal and EPA officials covered a broader spectrum of sites and included officials' views regarding any Superfund program activities in which they had been involved. For each case study, we requested information about EPA's consultation with tribes as well as any documentation that demonstrated whether and how EPA took into account unique tribal needs associated with the site when making cleanup decisions. We also interviewed officials from the tribe or tribes involved with the cleanup at each of our six selected NPL sites, as well as EPA regional officials for the region in which the site is located.¹³ We analyzed EPA and tribal officials' experiences with consultation and coordination at the six selected NPL sites based on EPA's consultation policy.

To describe what actions EPA has taken to address the unique needs of tribes when making cleanup decisions, we interviewed EPA officials from the regional offices associated with the six selected NPL sites. We also interviewed officials from the tribe or tribes with interests at each of the selected sites in our review. Our interviews with EPA and tribal officials covered a broader spectrum of sites and included officials' views about other Superfund activities in which they had been involved. Appendix II provides a more detailed description of the objectives, scope, and

¹²Because this was a nonprobability sample, it is not generalizable to other sites but provides illustrative examples of NPL sites with NAI that have had at least two assessments or inspections performed according to EPA data, and includes sites listed on the NPL since the publication of EPA's 2011 policy on tribal consultation and coordination.

¹³The selected sites are: Creese & Cook Tannery site in Danvers, MA (EPA Region 1: New England and 10 tribal nations); General Motors (Central Foundry Division) site in Massena, NY (EPA Region 2: New Jersey, New York, Puerto Rico, U.S. Virgin Islands, and 8 tribal nations); Petoskey Manufacturing Company Groundwater site in Petoskey, MI (EPA Region 5: Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin, and 35 tribal nations); Jackpile-Paguete Uranium Mine site in Laguna Pueblo, NM (EPA Region 6: Arkansas, Louisiana, New Mexico, Oklahoma, Texas, and 66 tribal nations); Smurfit Stone Mill Frenchtown site in Missoula, MT (EPA Region 8: Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming, and 27 tribal nations); and the Midnite Mine in Wellpinit, WA (EPA Region 10: Alaska, Idaho, Oregon, Washington and 271 tribal nations).

methodology for this report. Appendix III provides additional information about our six selected case study sites and the EPA regions in which they are located.

We conducted this performance audit from May 2017 to January 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

This section presents information on the Superfund program and the stages of the cleanup process, the relationship between federally recognized tribes and the federal government, the laws and policies that govern EPA's consultation with federally recognized tribes regarding Superfund cleanup actions, and EPA's administration of the Superfund program.

The Superfund Program and Remedial Cleanup Process

CERCLA established the Superfund program to clean up contaminated sites to protect human health and the environment from the effects of hazardous substances. Under CERCLA, potentially responsible parties are liable for conducting or paying for the cleanup of hazardous substances at contaminated sites. Under the Superfund program, EPA and potentially responsible parties can undertake two types of cleanup actions: removal actions and remedial actions. Removal actions are usually short-term cleanups for sites that pose immediate threats to human health or the environment. Remedial actions are generally long-term cleanups—consisting of one or more remedial action projects—that aim to permanently and significantly reduce contamination; these actions can take a considerable amount of time and money, depending on the nature of the contamination and other site-specific factors.

The Superfund process begins with the discovery of a potentially hazardous site or notifications to EPA regarding the possible release of hazardous substances that may threaten human health or the environment. EPA delineates the Superfund remedial cleanup process in nine phases:

1. **Preliminary Assessment and Site Investigation.** EPA's regional offices may discover sites with releases of hazardous substances or potential for releases of hazardous substances, or such sites may come to EPA's attention through notifications—either reports from state agencies or citizens. As part of this first phase of the process, EPA's regional offices use a screening system called the Hazard Ranking System to guide decision making and, as needed, to numerically assess the site's relative potential to pose a threat to human health or the environment.
2. **NPL Site Listing Process.** EPA may propose sites that score at or above an established level for listing on the NPL.¹⁴ EPA regions submit sites to EPA headquarters for possible listing on the NPL based on a variety of factors, including the availability of alternative state or federal programs that may be used to clean up the site.¹⁵ Sites that EPA proposes to list on the NPL are published in the Federal Register. After a period of public comment, EPA reviews the comments and makes final decisions on whether to list the sites on the NPL.
3. **Remedial Investigation and Feasibility Study.** EPA or a potentially responsible party will generally begin the remedial cleanup process for an NPL site by conducting a two-part study of the site: (1) a remedial investigation to characterize site conditions and assess the risks to human health and the environment, among other actions and (2) a feasibility study to evaluate various options to address the problems identified through the remedial investigation.
4. **Record of Decision.** At the culmination of the remedial investigation and feasibility study, EPA issues a record of decision that identifies EPA's selected remedy for addressing the contamination. A record of

¹⁴Sites with a Hazard Ranking System score of 28.50 or greater are eligible for listing on the NPL.

¹⁵In addition, EPA officials have noted that, as a matter of policy, EPA seeks concurrence from the governor of the state or head of the state's environmental agency in which a site is located before listing a site on the NPL.

decision typically lays out the planned cleanup activities for each operable unit of the site.¹⁶

5. **Remedial Design and Remedial Action.** EPA or a potentially responsible party plans the implementation of the selected remedy during the remedial design phase, and then, in the remedial action phase, EPA or a potentially responsible party carries out one or more remedial action projects.
6. **Construction Completion.** EPA generally considers the construction to be complete for a site when all physical construction at a site is complete, including actions to address all immediate threats and to bring all long-term threats under control.
7. **Post-Construction Completion.** The potentially responsible party or the state generally conducts operation and maintenance to maintain the remedy, such as operating a groundwater extraction and treatment system. EPA generally performs reviews of the remedy at least every five years to evaluate whether it continues to protect human health and the environment.
8. **NPL Deletion.** EPA may delete a site, or part of a site, from the NPL when the agency and the relevant state authority determine that no further site response is needed.
9. **Site Reuse and Redevelopment.** EPA works with communities to ensure that site cleanups are consistent with the site's future use and to make sure sites or portions of sites are used safely.

¹⁶An operable unit is a discrete action that comprises an incremental step toward comprehensively addressing site problems. 40 C.F.R. § 300.5. The cleanup of a site can be divided into a number of operable units, depending on the complexity of the problems associated with the site. Operable units may address geographical portions of a site, specific site problems, or initial phases of an action, or may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site. EPA guidance notes that, in practice, operable units are more commonly used to refer to a geographical area, a contaminated medium, or a chronological phase of a cleanup.

Relationship between Federally Recognized Tribes and the Federal Government

The federal government recognizes Indian tribes as distinct, independent political communities that possess certain powers of self-government and sovereignty. As of January 9, 2019, there were 573 federally recognized Indian tribes.¹⁷ The federal government has a government-to-government relationship with Indian tribes, so EPA works directly with tribes. The federal government also has a trust responsibility to Indian tribes and their members based on treaties, federal laws, and court decisions. In addition, treaties between tribes and the federal government may reserve rights to a tribe that could be affected by a proposed EPA action. For example, an NPL site may contaminate fish or wildlife that a tribe has a treaty right to fish or hunt. EPA guidance notes that certain types of EPA actions, namely those that are focused on a specific geographic area, are more likely than others to have potential implications for treaty-protected natural resources.

Laws and Policies Governing EPA Consultation with Tribes Regarding Superfund Cleanup Actions

CERCLA includes a requirement for EPA to consult with Indian tribes in certain circumstances regarding cleanup actions at Superfund sites. Specifically, under CERCLA, EPA is required to treat tribes substantially the same as states with regard to consultation on remedial actions on lands for which an Indian tribe has jurisdiction, among other things.¹⁸ In addition to this CERCLA requirement, the following government-wide and agency policies apply when EPA consults with tribes regarding cleanup actions at Superfund sites:

- **Executive Order 13175 (2000).** Directs agencies to have an accountable process to ensure meaningful and timely input by tribal

¹⁷83 Fed. Reg. 34863 (July 23, 2018).

¹⁸42 U.S.C. § 9626(a); 40 C.F.R. § 300.515(b)(3).

officials in the development of regulatory policies that have tribal implications.¹⁹

¹⁹*Executive Order 13175, Consultation and Coordination with Indian Tribal Governments*, 65 Fed. Reg. 67249 (Nov. 9, 2000). Policies that have tribal implications refers to regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian tribes, on the relationship between the federal government and Indian tribes, or on the distribution of power and responsibilities between the federal government and Indian tribes.

- **EPA policies and guidance**
 - **EPA Policy for the Administration of Environmental Programs on Indian Reservations (1984).** Sets forth principles to guide EPA in dealing with tribal governments and responding to the problems of environmental management on reservations in order to protect human health and the environment.²⁰
 - **EPA Policy on Consultation and Coordination with Indian Tribes (2011).** Provides a general, agency-wide policy for consultation and coordination with tribes in cases in which EPA actions and decisions may affect tribal interests.²¹ EPA developed this policy in response to Executive Order 13175 and a 2009 presidential memorandum on tribal consultation.²² The policy notes that EPA submits annual progress reports to the Office of Management and Budget (OMB) on the status of its consultation actions pursuant to this 2009 presidential memorandum. This policy provides guiding principles for consultation, outlines a four-phase process for conducting consultation, and establishes the roles and responsibilities for specific EPA officials.²³ Some EPA regional offices have their own specific guidance for consulting with tribes that include the elements of EPA's agency-wide consultation policy, but may include more specific guidelines. For example, Region 2's consultation guidance includes a list of specific subjects to include in notification letters to tribes.
 - **EPA Policy on Environmental Justice for Working with Federally Recognized Tribes and Indigenous Peoples (2014).** Affirms EPA's commitment to provide federally recognized tribes and indigenous peoples in the United States fair treatment and

²⁰Environmental Protection Agency, *EPA Policy for the Administration of Environmental Programs on Indian Reservations* (Washington, D.C.: November 8, 1984). EPA reaffirmed this policy in October 2017.

²¹Environmental Protection Agency, *EPA Policy on Consultation and Coordination with Indian Tribes* (Washington, D.C.: May 4, 2011).

²²In 2009, a presidential memorandum directed agencies to develop detailed plans of actions that they were to take to implement the policies and directives of Executive Order 13175. The White House, Office of the Press Secretary, *Memorandum for the Heads of Departments and Agencies on Tribal Consultation* (Washington, D.C.: November 5, 2009).

²³For example, the policy says EPA should notify tribes of activities that may be appropriate for consultation sufficiently early in the process to allow for meaningful input by the tribe, and that EPA should provide tribes with formal, written feedback from a senior EPA official to the most senior tribal official involved in the consultation, describing how a tribe's input was considered in making the agency's final action.

meaningful involvement in EPA decisions that may affect their health or environment.²⁴

- **EPA Guidance for Discussing Tribal Treaty Rights (2016).** The guidance states that it is intended to enhance EPA's consultations in situations where tribal treaty rights may be affected by a proposed EPA action.²⁵
- **EPA Memorandum on Considering Traditional Ecological Knowledge During the Cleanup Process (2017).** Provides direction to improve the Superfund decision-making process to ensure EPA considers a tribe's traditional ecological knowledge when tribes willingly provide such information.²⁶
- **EPA Memorandum on Consideration of Tribal Treaty Rights and Traditional Ecological Knowledge in the Superfund Remedial Program (2017).** Provides recommendations for regional Superfund Remedial Program staff to consider when (1) evaluating tribal treaty rights and treaty-protected resources in program implementation and (2) considering traditional ecological knowledge during the cleanup process when the information is freely provided by the tribe or tribes with interests at the site.²⁷

EPA's Administration of the Superfund Program

EPA's 10 regional offices are responsible for carrying out many of the implementation and management responsibilities for NPL sites, and are guided by the Superfund Program Implementation Manual, as well as CERCLA, CERCLA's implementing regulations, supplementary guidance, and agency policy. The Superfund Program Implementation Manual states that its purpose is to provide overarching program management priorities, procedures, and practices for EPA's Superfund remedial and

²⁴Environmental Protection Agency, *EPA Policy on Environmental Justice for Working with Federally-Recognized Tribes and Indigenous People* (Washington, D.C.: July 24, 2014).

²⁵Environmental Protection Agency, *EPA Policy on Consultation and Coordination with Indian Tribes: Guidance for Discussing Tribal Treaty Rights* (February 2016).

²⁶Environmental Protection Agency, *Considering Traditional Ecological Knowledge (TEK) During the Cleanup Process* (Washington, D.C.: January 3, 2017).

²⁷Environmental Protection Agency, *Consideration of Tribal Treaty Rights and Traditional Ecological Knowledge in the Superfund Remedial Program*, OLEM 9200.2-177 (Washington, D.C.: January 17, 2017).

removal programs, providing a link between EPA's strategic plan and Superfund program internal processes, among other things. Further, the manual includes definitions for Superfund program accomplishments and outlines processes for planning and tracking accomplishments through milestones, including site-wide milestones specific to how the agency manages the release of hazardous substances (e.g., human exposure under control).²⁸

Using its SEMS and TCOTS data systems, EPA tracks NPL sites that are on tribal property or that affect federally recognized Indian tribes, as well as the agency's efforts to consult with Indian tribes regarding cleanup decisions at NPL sites. SEMS is EPA's primary database to track Superfund program accomplishments and milestones and to answer Superfund-related questions from Congress, federal and state agencies, and the public. SEMS is EPA's primary system for Superfund data collection, reporting, and tracking and serves as the Superfund program's data management system for accomplishment planning and tracking. According to the Superfund Program Implementation Manual, EPA regional staff are to input data into SEMS regarding planned or actual accomplishments, and EPA headquarters staff are to use SEMS data as the basis for tracking, managing, and reporting on the performance of the Superfund program.

SEMS is the system of record for NPL site data, including information on tribes that have an interest in the site. We looked at three of the variables SEMS uses for tracking sites that are located on tribal property or that affect tribes²⁹:

²⁸For the purposes of this report, we use the phrase site-wide milestones to refer to four of the indicators EPA uses to measure progress at remedial sites: construction completion, human exposure under control, groundwater migration under control, and site-wide ready for anticipated use. These milestones are further explained in Appendix I.

²⁹In its fiscal year 2018 manual, EPA added a variable for sites that are on land under the governance of the Navajo Nation. We did not examine these data specifically because sites under the governance of the Navajo Nation were captured in our data through other tribal-related variables.

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- **On tribal property.** This variable indicates whether the release of hazardous materials is on Indian country and any other land owned by an Indian tribe or an Alaska Native entity.³⁰
 - **NAI.** This variable identifies sites that may be of interest to one or more Native American entities whose members or land would be directly affected by the release of hazardous materials.
 - **Associated tribe.** This variable identifies the specific Indian entity or entities associated with a site with NAI.

TCOTS tracks information about potential future tribal consultation opportunities and serves as a repository for consultation-related documents for active consultations for all EPA programs, including Superfund. EPA uses TCOTS to (1) track current and forecasted consultation, (2) publicize current EPA consultation opportunities for tribal governments, and (3) provide reports to OMB, as called for in the 2009 presidential memorandum on tribal consultation.³¹

EPA Does Not Have Reliable Data Identifying NPL Sites Located on Tribal Property or That Affect Tribes

EPA data identifying NPL sites that are located on tribal property or that affect tribes are not reliable. Specifically, EPA data identifying sites that are on tribal property, sites that have NAI, and the tribes that have interest in NAI sites are not accurate or complete based on our reviews of agency data and interviews with EPA officials.

³⁰Federal law defines the term “Indian country” as all land within the limits of any Indian reservation under the jurisdiction of the U.S. government, all dependent Indian communities within U.S. borders, and all Indian allotments, the Indian titles to which have not been extinguished, including any rights-of-way running through an allotment. See 18 U.S.C. § 1151.

³¹The memorandum directs agencies to develop a plan of actions to implement the policies and directives of Executive Order 13175 and to submit an annual report to OMB that includes any proposed updates to the plan and a progress report on the status of each action included in agencies’ plans.

EPA Data Identifying NPL Sites Located on Tribal Property Are Not Accurate

EPA data identifying NPL sites that are on tribal property are not accurate. EPA headquarters officials told us that the SEMS data variable for identifying sites “on tribal property” may not always accurately identify whether NPL sites are located on tribal property. Because EPA officials told us that the agency’s data regarding NPL sites on tribal property may not be accurate and provided explanations for why these data are unreliable, we did not evaluate these data to determine the total number of inaccuracies.

EPA officials we interviewed provided a number of reasons why the agency’s data regarding NPL sites located on tribal property may not be accurate:

- First, EPA officials told us that some site location information was inaccurately transposed during maintenance of the former database of record used prior to adopting SEMS, and that these errors, in some cases, carried over to SEMS.³² According to these officials, the transposed information resulted in some sites appearing in the incorrect geographic hemisphere (i.e., sites located in the western hemisphere appeared to be located in the eastern hemisphere in the incorrectly transposed data). These officials told us that they have worked over the past year to correct these errors and to verify the accuracy of site coordinates.
- Second, EPA officials told us that accurately documenting which sites are on tribal property can be complicated due to difficulties identifying tribal property boundaries and evolving site boundaries. For example, tribal property boundaries may be difficult to establish without reviewing land titles and other documents. Further, EPA officials told us they use the best available data to identify tribal property but there are limitations in that data. In addition, EPA officials we interviewed told us that site boundaries can be difficult to define or change over time. For example, an agency official told us NPL sites may not have clearly delineated boundaries until after the remedial investigation is complete and the full extent of contamination has been determined.

³²The previous database of record was called the Comprehensive Environmental Response, Compensation and Liability Information System, CERCLIS, and EPA replaced this database with SEMS in fiscal year 2014.

Further, the official said that site boundaries may change during the cleanup process or during post-cleanup reviews if EPA discovers new or more widespread contamination. According to EPA headquarters officials, EPA regional officials are responsible for tracking changes to site boundaries in their respective regions, but specific information on the location of site boundaries is not documented in SEMS. Additionally, for one site—the Tar Creek site in Oklahoma (Region 6)—EPA’s publicly-available information states that there are no clear site boundaries. One EPA regional official we interviewed told us that he was not aware of guidance for regions regarding changing tribal property information in circumstances in which site boundaries change to include land that is tribal property. Additionally, EPA officials told us that regional offices may be inconsistent in how they determine site boundaries. EPA released recommended practices for collecting geospatial data for Superfund sites in 2017 that included guidance for determining and documenting NPL site boundaries. Further, in May 2018, EPA provided national standards intended to provide a uniform method for collecting, documenting, and managing geospatial information for Superfund sites, including information identifying site boundaries.

- Third, EPA headquarters officials stated that EPA checks the accuracy of these data infrequently. Headquarters officials told us there are several standardized automated reports that officials at the headquarters and regional levels can use to review SEMS data and identify quality issues, including quality issues in the variables for NAI and the associated tribes. However, these reports do not contain the on tribal property variable, and SEMS currently does not have the ability to run automated checks of site proximity to tribal property based on location data. Officials told us that they review the on tribal property data periodically outside of these reports; however, EPA currently lacks a regular review process for these data.

Under federal standards for internal control, management should use quality information to achieve the entity’s objectives. Quality information is appropriate, current, complete, accurate, accessible, and provided on a timely basis.³³ In addition, under federal standards for internal control, management should design control activities to achieve objectives and respond to risks, such as by conducting reviews at the functional or activity level. According to EPA officials, data identifying NPL sites that

³³GAO, Standards for Internal Control in the Federal Government, [GAO-14-704G](#) (Washington, D.C.: September 2014).

are on tribal property may not be accurate for a number of reasons. Because SEMS automated reports do not contain the on tribal property variable, EPA regions cannot regularly conduct quality reviews of information in SEMS on tribal property using those reports. Without a regular review process to ensure the quality of SEMS data identifying sites on tribal property and the ability to use automated reports to check the accuracy of on tribal property data in SEMS, EPA does not have reasonable assurance that regional officials have accurately identified sites on tribal property.

EPA Data Identifying Sites as Having NAI Are Not Accurate or Complete

EPA data identifying which sites have NAI are inaccurate and incomplete, based on our reviews of the data. We found three types of errors in these data. First, we found that SEMS did not include some sites with known tribal interest as having NAI. Second, we found some sites that EPA identified in SEMS as having NAI when there was no tribal interest. Third, we found that EPA regional officials inconsistently used the NAI variable in SEMS when there was no longer tribal interest in a site.

- **SEMS does not include some NPL sites with known tribal interests as having NAI.** We found nine sites with tribal interest that EPA did not identify as having NAI in SEMS. For six of these sites, EPA regional officials told us that they knew the sites were of interest to one or more tribes, even though they were not identified as having NAI in SEMS. For example, we found that EPA Region 10 had invited the Cow Creek Band of Umpqua Tribe of Indians to consult regarding the Black Butte Mine site, but the site was not identified as having NAI in SEMS. For two additional sites, following our request to review the SEMS data, officials from Region 4 contacted tribal officials in their region to inquire about their potential interest in NPL sites and found that the Eastern Band of Cherokee Indians had interest in two sites in North Carolina not previously identified as having NAI: Barber Orchard and Benefield Industries. EPA designated both sites as ready for their intended use—meaning that construction of the remedy had been completed—in 2011 and 2014, respectively. For the remaining site, EPA officials in Region 5 stated that they learned of tribal interest in the Petoskey Manufacturing Company Groundwater site when the Little Traverse Bay Bands of Odawa Indians contacted them in

December 2017, after coverage of the site's contamination hazards on the local news.³⁴

- **SEMS incorrectly includes some sites as having NAI when no tribal interest exists.** When responding to our request to verify the accuracy of data in SEMS, EPA regional officials identified 10 sites that were incorrectly included in SEMS as having NAI when there was no actual tribal interest. For example, officials from Region 4 stated that they removed the NAI designation from three sites because the sites are situated more than 100 miles from the nearest federally recognized tribe's property and the officials were not aware of any tribal interest in the sites. Similarly, EPA regional officials determined that two other sites—Eielson Air Force Base in Region 10 and Seneca Army Depot in Region 2—were incorrectly identified as having NAI. These officials told us that these sites should not have been designated as NAI because no tribes had expressed interest in either site.
- **EPA inconsistently identified sites with prior NAI in SEMS.** We found that EPA regional officials inconsistently used the NAI variable in SEMS when tribes were no longer interested in a site. For example, Region 2 officials stated that they maintained the NAI designation for the Hooker Hyde Park site in order to preserve the historical record after EPA identified that the Seneca Nation of Indians no longer had an interest in the site. Conversely, Region 8 officials indicated that they removed the NAI designation for the Arsenic Trioxide site when it was determined that the relevant tribe no longer had interest in the site.

Based on our review of EPA guidance and data provided by EPA officials, we identified several possible reasons that the agency's data for identifying tribal interests are not accurate or complete. One possible reason that NAI data in EPA's SEMS may be inaccurate and incomplete is because EPA's guidance for making NAI determinations is unclear, resulting in EPA regional officials inconsistently determining and documenting sites with NAI. EPA's Superfund Program Implementation Manual, which provides guidance to EPA regional officials for identifying

³⁴In providing technical comments to a draft of this report, EPA commented that Region 5's Tribal and International Affairs Office can help the Superfund Program identify where there may be potential tribal interest or impacts on the tribe, and provide the appropriate tribal contacts so that the tribe can be notified directly from EPA prior to media coverage as much as possible. EPA noted that communicating directly with tribes on a government-to-government basis should begin as soon as site work is contemplated.

sites as having NAI, contains one sentence regarding how EPA regional officials are to determine when to designate a site as having NAI. The manual states that EPA regional officials should designate NAI in SEMS when a site “may be of interest to tribes whose members or land are directly affected” by the release of hazardous materials from the site, but the manual does not specify criteria EPA regional officials should consider for determining what constitutes NAI. For example, the manual does not specify whether ancestral lands, areas where tribes have treaty rights, or areas otherwise of interest to a tribe but that are not tribal property should be considered in making this determination. It also does not specify what types of tribal interests to consider. However, officials from tribes we interviewed for our case studies told us that tribal interests in NPL sites may be related to a variety of factors, including contamination potentially affecting tribal members living in or around the contaminated area or land where the tribe has treaty hunting or fishing rights. Furthermore, EPA’s Superfund Program Implementation Manual does not specify whether officials should remove the NAI designation if officials determine tribes no longer have interest in a site. In the case of the Petoskey Manufacturing Company Groundwater site in Michigan, EPA Region 5 officials we interviewed told us that they were uncertain as to whether they should identify the site as having NAI, because they were unsure if the level of the tribe’s interest was significant enough.

EPA officials we interviewed provided additional reasons for the lack of accuracy and completeness in the agency’s data regarding sites with NAI. EPA headquarters officials told us they periodically, but infrequently, review SEMS data on Superfund sites identified as having NAI. In addition, EPA officials told us that, in some cases, they did not identify sites as having NAI where there was tribal interest or incorrectly identified sites as having NAI when no tribal interests were involved due to errors. Additionally, some regional officials expressed that identifying NAI can be complicated by the fact that tribes may have interest in sites not located near their current property due to historical interest or treaty rights.

Under federal standards for internal control, management should design control activities to achieve objectives and respond to risks, such as by clearly documenting internal control in management directives, administrative policies, or operating manuals.³⁵ Although EPA has documented guidance, it is not clear about how EPA officials should

³⁵[GAO-14-704G](#).

make determinations about designating sites as having NAI. Without clear guidance to regional offices on how to determine whether sites have NAI—including criteria to assist regions in determining when a site should be designated as having NAI in the SEMS database and how, if at all, to adjust the NAI data for sites that no longer have tribal interest—EPA does not have reasonable assurance that its data on tribes that may be affected by hazardous releases at NPL sites are accurate or complete.

EPA Data on Tribes with Interest in Sites That Have NAI Are Not Accurate or Complete

EPA data do not accurately or completely identify the tribes that have interest in the sites that EPA identified as having NAI. Specifically, through reviewing EPA's data with officials in each region, we found examples of sites that EPA indicated as having NAI but that (1) did not identify any tribes with an interest in the sites, (2) did not identify all tribes with an interest in the sites, and (3) incorrectly identified tribes associated with a site.

- **SEMS does not include tribes for all sites.** We found eight sites with NAI for which EPA did not identify an interested tribe in SEMS. For these eight sites, EPA officials added the tribes' names prior to sending us the data.
- **SEMS does not include all tribes that have an interest in some sites.** We identified eight sites for which EPA did not identify in SEMS all the tribes that had interest in the site. For example, for the Smurfit Stone Mill Frenchtown site in Missoula, Montana, EPA data listed the Confederated Salish and Kootenai Tribes of the Flathead Reservation as having an interest in the site. However, after speaking with EPA Region 8 officials, we learned that the Kalispel Indian Community of the Kalispel Reservation also has an interest in the site but could not be included in SEMS because the tribe resides in the state of Washington, and the site is located in Montana. In providing technical comments on a draft of this report, EPA identified a ninth site, the St. Louis River site, for which an additional tribe should be added to the data in SEMS.³⁶
- **SEMS incorrectly identified an interested tribe associated with one site determined to have NAI.** For the Velsicol Chemical

³⁶This addition is reflected in our table of sites with known Native American interest in Appendix I.

Corporation site in Michigan, EPA identified in SEMS the interested tribe as the Sault Ste. Marie Tribe of Chippewa Indians, when the actual interested tribe was the Saginaw Chippewa Indian Tribe of Michigan. Additionally, in providing technical comments on a draft of our report, EPA also made corrections to the tribes originally listed for the Tar Lake site and clarified the tribe originally listed for the St. Louis River site.³⁷

EPA officials we interviewed told us that a possible reason for the inaccuracies in the data regarding the tribe or tribes interested in NPL sites that have NAI is that, until recently, regional officials could not enter the names of additional tribes to a SEMS site record that was created in the agency's previous database of record. In addition, officials from two EPA regions told us that they could not record tribes as having an interest in a site when the tribe is headquartered in a state other than the state address on file for the site. EPA headquarters officials told us they submitted a request in August of 2017 to have the issue resolved and that, as of April 2018, the issue had been corrected and that regions can now add additional tribes, or tribes from other states outside of the state where the site is headquartered. Officials told us that prior to the correction in SEMS, officials at the headquarters level could manually enter data to record the names of additional tribes with NAI in a site or identify tribes interested in a site that reside in states other than the state in which the site is located.

EPA Does Not Have Reliable Data about the Agency's Consultation with Tribes Regarding NPL Sites

EPA does not have reliable data on the agency's consultation with tribes regarding NPL sites. Additionally, based on our analysis of EPA data and related documentation, as well as discussions with officials from EPA and Indian tribes, we found that EPA officials more frequently coordinated informally with tribes than conducted consultation.

³⁷These corrections are reflected in our table of sites with known Native American interest in Appendix I.

EPA Does Not Have Reliable Data on Consultation with Tribes Regarding NPL Sites

EPA does not have reliable data on the NPL sites at which it has conducted tribal consultation. According to data in TCOTS, consultation had occurred or was projected to occur at 18 sites since EPA's consultation and coordination policy went into effect in 2011.³⁸ However, TCOTS data are incomplete and did not include records for 7 NPL sites where, based on our interviews with EPA regional officials and a review of agency documents, we determined that consultation had occurred since 2011.

One possible reason that EPA data on consultation with tribes are incomplete is that the agency's guidance regarding what constitutes consultation, and therefore is to be recorded in TCOTS, is unclear. EPA officials told us they consider consultation a specific, formal interaction that involves government-to-government interaction between tribal governments and senior EPA officials, such as Regional Administrators, and generally happens at major decision points or at the request of a tribe. Several EPA officials we interviewed clarified that the majority of day-to-day interaction with tribes do not require consultation and are less formal coordination efforts. EPA's 2011 consultation policy provides a broad definition of consultation and makes specified program and regional officials responsible for determining when consultation may be appropriate, but the policy does not provide specific criteria for regions to use to determine if consultation with a tribe should be considered. The policy initially states that it is EPA's policy to "consult on a government-to-government basis with federally recognized tribal governments when EPA actions or decisions may affect tribal interests." According to the policy, the broad scope of consultation contemplated by the policy creates "a large number of actions that may be appropriate for consultation." To provide "a general framework from which to begin the determination of whether any particular action or decision is appropriate for consultation," the policy provides a list of general EPA activity categories, including Superfund response actions. However, the policy does not provide any further guidance on the circumstances under which consultation should

³⁸TCOTS data for one site correctly recorded a projected consultation, but that consultation did not take place. Subsequently, EPA regional officials requested that the projected consultation be removed from TCOTS because they did not expect to take any actions in the next 6 months.

be considered. For example, it does not specify any particular points in the Superfund process at which consultation should be considered or any further detail on what tribal interests should be considered when determining if tribal interests are affected.

Under federal standards for internal control, management should design control activities to achieve objectives and respond to risks, such as by clearly documenting internal control in management directives, administrative policies, or operating manuals.³⁹ Although EPA has documented guidance about consulting with tribes, it does not provide clear direction to regions about the circumstances under which the agency should consider consulting with tribes during the Superfund process. Without clarifying guidance on tribal consultation to clearly identify the circumstances under which the agency should consider consulting with tribes, EPA does not have reasonable assurance that regions are applying the consultation policy consistently and uniformly.

In addition, EPA regional officials do not consistently document invitations to consult with tribes in TCOTS, which could result in incomplete or inaccurate data on EPA consultation with tribes. EPA headquarters officials told us that invitations to consult should be entered in TCOTS, because the database has a specific field for this information. Officials we interviewed from EPA Regions 6 and 10, the two regional offices that combined manage nearly half of Superfund sites that EPA identified as having NAI, told us that they do not document all invitations to consult in TCOTS. Specifically, an official we interviewed from Region 6 told us that consultation invitations that were not made in writing are generally not entered into TCOTS, and an official from Region 10 told us that officials in the region would not document invitations to consult that did not lead to actual consultation. In providing technical comments on our draft report, EPA noted that Region 10 now documents all invitations to consult with tribes in the TCOTS database.

Although EPA headquarters officials told us that invitations to consult should be entered in TCOTS, agency guidance does not direct officials to do so. EPA has developed guidance on key points in the Superfund process at which regional officials should document consultation if it occurs, but this guidance does not direct regional officials to document invitations to consult in TCOTS. Moreover, officials we interviewed from 6

³⁹[GAO-14-704G](#).

of EPA’s 10 regional offices were unaware of this guidance. An EPA headquarters official we interviewed told us that EPA regional officials may be unaware of this guidance because EPA has not conducted annual training regarding documenting tribal consultation and has decided to offer the training on an as-needed basis. This guidance identifies five decision points in the Superfund process at which EPA regional officials should, at a minimum, document any associated consultation with tribes in TCOTS, outlined in figure 1 below.

Figure 1: Phases in the Superfund Cleanup Process When the Environmental Protection Agency Should Document Consultation with Tribes



Office of International and Tribal Affairs recommends that, at a minimum, upcoming and current consultations should be entered into the Tribal Consultation Opportunities Tracking System at these phases of the Superfund cleanup process.

Source: GAO analysis of Environmental Protection Agency information. | GAO-19-123

Under federal standards for internal control, management should design control activities to achieve objectives and respond to risks, such as by clearly documenting internal control in management directives, administrative policies, or operating manuals.⁴⁰ By developing or revising guidance to clearly direct regional officials to document all invitations to consult with tribes in the TCOTS database and providing the guidance to those officials, EPA would have greater assurance that its regional offices are accurately and consistently documenting invitations to consult and that the data that EPA provides to OMB regarding agency consultations with tribes are accurate and complete.

Consultation Is Relatively Infrequent Compared to Coordination

Based on our analysis of EPA data and documentation, as well as interviews with EPA and tribal officials, we found that EPA more frequently coordinated informally with tribes regarding cleanup decisions at NPL sites than conducted consultation with tribes. Consultation between EPA and tribes, as defined in EPA’s 2011 tribal consultation

⁴⁰[GAO-14-704G](#).

policy, is relatively infrequent compared to less-formal coordination efforts. For example, officials from the Kalispel Indian Community told us that consultation is reserved for instances in which regular communication and coordination is not working. Additionally, EPA officials in Region 8 told us that most of their day-to-day interactions with tribes are considered coordination, and that consultation only occurs at key decision points in the Superfund process. Most EPA regional officials we interviewed as part of our case studies stated that consultation was relatively infrequent. At the same time, these officials stated that they frequently coordinate with tribes during the Superfund cleanup process. Additionally, EPA's policy says that tribal officials may request consultation with the agency.

Tribal officials we interviewed as part of our case studies expressed varying levels of satisfaction with EPA's coordination and consultation efforts, as well as with EPA's cleanup decisions overall. In the case of the General Motors Central Foundry site in Massena, New York, officials we interviewed from the Saint Regis Mohawk Tribe told us that they were dissatisfied with the consultation and the remedy at the General Motors Central Foundry site. Specifically, tribal officials stated that they were dissatisfied with EPA's decision to install a permanent cap over an industrial landfill at the site, rather than removing all of the waste, to address the contamination at the site. Officials from the tribe told us that they felt EPA was disregarding the tribe's health and safety concerns at the site. EPA acknowledged in its amended record of decision for the site that the tribe only partially agreed with the remedy; however, EPA notes that they took some steps to revise the remedy to address the tribe's concerns. For example, the amended record of decision was created in part, due to tribal opposition, and includes a contingency remedy that expands the scope of the amended decision to include removal of contaminated soil located on the tribe's property rather than on-site treatment. In other cases, officials of some tribes told us that the working relationship with their local EPA region was good and that coordination had been effective. For example, officials from the Pueblo of Laguna reported that communication and coordination with EPA region 6 regarding the cleanup of the Jackpile-Paguate Superfund site in Laguna Pueblo, New Mexico, was effective, and that the EPA remedial project manager for the site had been responsive to the tribe's needs.

EPA Has Taken Various Actions to Address Unique Tribal Needs When Making NPL Site Cleanup Decisions

EPA has taken various actions to address the unique needs of tribes when making cleanup decisions at NPL sites. These actions include efforts to minimize tribal members' exposure to contaminants and limit potential damage to tribal archeological sites. For example:

- **EPA Regions 1 and 10 took steps to protect tribal cultural resources at NPL sites.** EPA officials we interviewed from Region 1 told us that at one site, regional officials rerouted and improved roads used to remove contaminated materials to minimize the impact of cleanup activities' on historically significant cultural resources. In addition, EPA officials we interviewed from Region 10 told us that they coordinated with tribal cultural resource program officials to ensure that tribal officials were present during excavation work at the Midnite Mine site in Wellpinit, Washington, to observe and ensure that EPA was taking appropriate measures to protect sites that are culturally important to the tribe.
- **EPA Region 2 officials revised risk assessments at an NPL site.** Because of concerns about the potential health impacts to the Saint Regis Mohawk Tribe, EPA Region 2 officials revised the risk assessment for a site with polychlorinated biphenyl contamination to more accurately reflect the typical exposure of tribal members. EPA's revised hazard exposure assessment for the General Motors Central Foundry site assumed a higher rate of exposure to contaminants for tribal members, given that they, on average, live on the reservation longer than an adult non-tribal member may live in the same place for most of his or her life. Specifically, EPA's exposure estimate was based on an exposure duration of 64 years for an adult tribal member and an exposure duration of 30 years for adult non-tribal member.
- **EPA Region 9 incorporated tribal information into risk assessments for some NPL sites.** EPA officials we interviewed from EPA's Region 9 office told us about several sites where they had considered tribal members' heightened exposure to contamination. For example, at one site, officials told us they worked closely with tribal officials to gather data on tribal members' uses of vegetation and tribal game consumption. These EPA officials stated that they used these data to develop risk assessment plans that were sensitive to unique tribal needs.

EPA officials we interviewed also provided examples of the use of traditional ecological knowledge at some NPL sites.⁴¹ Traditional ecological knowledge sometimes represents unique tribal needs. For example, EPA officials we interviewed described instances in which a tribe provided EPA with selected information about their traditional hunting sites and their traditional use of plants, and EPA was able to use this information when developing risk assessments and standards for safe consumption of fish and wildlife. For example, officials in EPA Region 9 told us that a tribe shared information with them about how tribal members hold reeds in their mouths as part of traditional basket making practices. These officials reported that after learning of the tribe's use of such reeds, the agency considered this information when determining how to evaluate contamination in the area where the reeds grow. EPA and tribal officials told us that, for confidentiality reasons, some tribes may be reluctant to share some traditional ecological knowledge; however, headquarters and EPA regional officials told us that this was relatively infrequent and that, in these situations, EPA was able to work with the tribe to find ways to use more general information to inform decisions regarding Superfund cleanups.

Conclusions

EPA has policies and procedures for consulting with tribes when its actions and decisions at NPL Superfund sites may affect tribal interests. To carry out these policies and procedures, EPA must be able to identify when its actions and decisions may affect a tribe. The agency has developed two systems—SEMS and TCOTS—that it uses to identify and track sites that are on tribal property or that affect tribes, and the agency's efforts to consult with affected tribes, respectively. However, based on our analysis of some of the data in these systems, these data are not reliable. Data on sites that are on tribal property are not accurate, and there is no regular, standardized review process officials can use to review the quality of these data. Without developing such a review process, EPA will not have reasonable assurance that regional officials have accurately identified the sites that are on tribal property. Additionally, data on sites

⁴¹According to a 2017 EPA memorandum, traditional ecological knowledge is the evolving knowledge acquired by indigenous and local peoples over hundreds or thousands of years through direct contact with the environment. The memorandum also recognizes that consideration of a tribe's indigenous knowledge offers a way of bridging gaps in perspective and understanding.

that have NAI are not accurate or complete due, in part, to unclear guidance for how regions should determine whether a site has NAI. Clarifying guidance to regional offices on how to determine whether sites have NAI can help provide EPA reasonable assurance that its data on tribes that are directly affected by hazardous releases at NPL sites are accurate and complete. Moreover, we found that the data tracking consultation with tribes at NPL sites were unreliable, and may not contain all invitations to consult. Clarifying guidance to clearly identify the circumstances under which the agency should consider consulting with tribes could improve the quality of EPA's data on consultation, and could help ensure EPA regions are applying the consultation policy consistently and uniformly. In addition, explicitly directing regional officials to document all invitations to consult with tribes, regardless of whether further consultation results after the invitation, would provide EPA greater assurance that its regional offices are accurately and consistently documenting invitations to consult, and that the data that EPA provides to OMB regarding tribal consultations are accurate and complete.

Recommendations for Executive Action

We are making the following four recommendations to EPA:

The Director of EPA's Office of Superfund Remediation and Technology Innovation should develop a regular review process to ensure the quality of SEMS data identifying NPL sites on tribal property and revise automated reports used to check the accuracy of SEMS data to include on tribal property data. (Recommendation 1)

The Assistant Administrator of EPA's Office of Land and Emergency Management should clarify guidance to regional offices on how to determine whether sites have NAI, including by adding criteria for when a site should be designated as having NAI in the SEMS database and how, if at all, to adjust SEMS data if a tribe is no longer interested in a site. (Recommendation 2)

The Director of EPA's Office of Superfund Remediation and Technology Innovation should clarify agency guidance regarding tribal consultation for the Superfund program to clearly identify the circumstances under which the agency should consider consulting with tribes. (Recommendation 3)

The Assistant Administrator of EPA's Office of International and Tribal Affairs should develop or revise existing guidance to clearly direct

regional officials to document all invitations to consult with tribes in the TCOTS database and provide the guidance to those officials. (Recommendation 4)

Agency Comments and Third-Party Views

We provided a copy of this report to EPA, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Kalispel Indian Community of the Kalispel Reservation, the Little Traverse Bay Bands of Odawa Indians, the Mashpee Wampanoag Tribe, the Pueblo of Laguna, the Saint Regis Mohawk Tribe, the Spokane Tribe of the Spokane Reservation, and the Wampanoag Tribe of Gay Head (Aquinnah) for review and comment. EPA generally agreed with our recommendations, and their comments are reproduced in appendix IV. EPA also provided technical comments, which we incorporated as appropriate. The Confederated Salish and Kootenai Tribes of the Flathead Reservation and the Pueblo of Laguna also provided written comments (reproduced in appendixes V and VI) and technical comments, which we incorporated as appropriate. The Kalispel Indian Community of the Kalispel Reservation, the Little Traverse Bay Bands of Odawa Indians, the Mashpee Wampanoag Tribe, the Saint Regis Mohawk Tribe, the Spokane Tribe of the Spokane Reservation, and the Wampanoag Tribe of Gay Head (Aquinnah) did not comment on our report.

EPA concurred with our recommendation to develop a regular review process to ensure the quality of SEMS data identifying NPL sites on tribal property and revise automated reports used to check the accuracy of these data. EPA stated that during the course of our work on this report, SEMS tribal data was reviewed for quality control and corrections were made to the existing data. In addition, EPA's Office of Superfund Remediation and Technology Innovation plans to create a schedule to review tribal data in SEMS and disseminate tribal data to Superfund regional coordinators annually for their quality assurance review starting in March 2019.

EPA generally agreed with our recommendation to clarify guidance to regional offices on how to determine whether sites have NAI, including by adding criteria for when a site should be designated as having NAI in SEMS and how, if at all, to adjust SEMS data if a tribe is no longer interested in a site. EPA noted that there are a variety of circumstances under which a tribe may have interest in a site, and the agency plans to identify relevant criteria in the Superfund Program Implementation Manual

that may be used to support the decision of whether or not to apply the NAI indicator. Additionally, the agency plans to create a headquarters and regional workgroup to review and update tribal data collected in SEMS. The workgroup will provide guidance to clarify the NAI determination, including identifying criteria for designating a site NAI, and identifying a process to update SEMS when a tribe is no longer interested in a site, as needed. EPA plans to complete this no later than October 2019.

EPA concurred with our recommendation to clarify agency guidance regarding tribal consultation on Superfund sites to clearly identify the circumstances under which the agency should consider consulting tribes. In its letter, EPA pointed out that our original recommendation did not specify that the recommendation was about guidance regarding tribal consultation on Superfund sites, so we adjusted the language of the recommendation accordingly. EPA plans to issue a memo to the regions that clarifies circumstances under which regions may consider tribal consultation for the Superfund program no later than March 2020.

EPA concurred with our recommendation that it should develop or revise existing guidance to clearly direct regional officials to document all invitations to consult with tribes in the TCOTS database and provide the guidance to those officials. EPA is planning four actions to respond to this recommendation: (1) issuing a memorandum from the Office of International and Tribal Affairs to EPA Regional Administrators on the importance of following EPA's Tribal Consultation and Coordination Policy and documenting consultation actions into TCOTS, estimated to occur in January 2019; (2) issuing a monthly TCOTS report to Deputy Assistant Administrators and Regional Assistant Administrators on the status of consultations recorded in TCOTS, starting in January 2019; (3) initiating trainings specifically targeted to EPA's Regional Superfund staff on when and how to document consultation actions in TCOTS, estimated to begin in February or March 2019; and (4) conducting training on tribal consultation topics, with a specific emphasis on entering consultation information into TCOTS, beginning in March or April 2019.

In their comments on our report, the Confederated Salish and Kootenai Tribes of the Flathead Reservation noted that our report is thorough and provides valuable insight into EPA's policies and procedures for tribal consultation at NPL sites. The tribe provided some additional detail on the Smurfit Stone Mill Frenchtown case study which we incorporated as appropriate. The tribe also noted that they had interest in a site not identified by EPA as having NAI, the Anaconda Aluminum Co. Columbia

Falls Reduction Plant site. In response, we added this site to our list of NPL sites known to be on or affecting tribal land, shown in appendix I.

The Pueblo of Laguna commented that while the scope of the report was limited, the Pueblo appreciated GAO's efforts to study EPA's tribal consultation practices. The Pueblo emphasized their belief that EPA's duty to consult with tribes should be an active one, not a passive one, and presented three associated comments. First, the Pueblo believes EPA should affirmatively consider offering consultation at each stage of the Superfund process beginning with preliminary investigation and site assessment. Second, the Pueblo believes EPA should continue to contact potentially interested tribes throughout the life of an NPL site, even if the tribe had not expressed interest at a previous stage of the process to ensure that newly interested tribes are identified. Finally, the Pueblo believes EPA should document all offers to consult, including ones made orally. The Pueblo provided comments and edits on the Jackpile-Paguete Mine case study in their letter, which we incorporated. The Pueblo also provided technical comments on the report, which we incorporated as appropriate.

As agreed with your offices, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the appropriate congressional committees, the Administrator of the Environmental Protection Agency, the Chairman of the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Chairman of the Kalispel Indian Community of the Kalispel Reservation, the Chairman of the Little Traverse Bay Bands of Odawa Indians, the Chairman of the Mashpee Wampanoag Tribe, the Governor of the Pueblo of Laguna, the Chiefs of the Saint Regis Mohawk Tribe, the Chairwoman of the Spokane Tribe of the Spokane Reservation, the Chairwoman of the Wampanoag Tribe of Gay Head (Aquinnah), and other interested parties. In addition, the report will be available at no charge on the GAO website at <http://www.gao.gov>.

If you or your staff members have any questions about this report, please contact me at (202) 512-3841 or gomezj@gao.gov. Contact points for our Office of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to the report are listed in appendix VII.

A handwritten signature in black ink that reads "Alfredo Gómez". The signature is written in a cursive style with a large, stylized initial 'A' and 'G'.

J. Alfredo Gómez
Director, Natural Resources and Environment

List of Requesters

The Honorable Bernard Sanders
Ranking Member
Committee on the Budget
United States Senate
The Honorable Tom Udall
Vice Chairman
Committee on Indian Affairs
United States Senate

The Honorable Raúl M. Grijalva
Chairman
Committee on Natural Resources
House of Representatives

The Honorable Ruben Gallego
Ranking Member
Subcommittee on Indian, Insular, and Alaska Native Affairs
Committee on Natural Resources
House of Representatives

The Honorable Peter Aguilar
House of Representatives

The Honorable Donald S. Beyer, Jr.
House of Representatives

The Honorable Tony Cárdenas
House of Representatives

The Honorable Yvette D. Clarke
House of Representatives

The Honorable William Lacy Clay
House of Representatives

The Honorable Keith Ellison
House of Representatives

The Honorable Jared Huffman
House of Representatives

The Honorable Daniel T. Kildee
House of Representatives

The Honorable Derek Kilmer
House of Representatives

The Honorable Ann Kirkpatrick
House of Representatives

The Honorable Alan S. Lowenthal
House of Representatives

The Honorable Ben Ray Lujan
House of Representatives

The Honorable Betty McCollum
House of Representatives

The Honorable Gwen Moore
House of Representatives

The Honorable Grace Flores Napolitano
House of Representatives

The Honorable Frank Pallone, Jr.
House of Representatives

The Honorable Jared Polis
House of Representatives

The Honorable Lucille Roybal-Allard
House of Representatives

The Honorable Raul Ruiz, M.D.
House of Representatives

The Honorable Linda T. Sanchez
House of Representatives

The Honorable Mark Takano
House of Representatives

The Honorable Norma J. Torres
House of Representatives

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

This appendix provides information on the site-wide cleanup status of National Priorities List (NPL) sites with known Native American Interest (NAI), as of December 2017. We worked with the Environmental Protection Agency (EPA) to correct inaccuracies in the Superfund Enterprise Management System (SEMS) data identifying sites as having NAI, and we identified 87 NPL sites—74 sites on the NPL, 8 deleted from the NPL, and 5 proposed for addition—known to have NAI. In addition, in providing technical comments on the draft of this report, the Confederated Salish and Kootenai Tribes of the Flathead Reservation identified one additional site, bringing the total to 88 NPL sites known to have NAI. Of these 88 sites known to have NAI out of the total 1,785 NPL sites that were proposed, final, or deleted as of December 2017, many have reached site-wide milestones that EPA uses to track the cleanup status of NPL sites. EPA measures four site-wide milestones, including one that measures the progress in the Superfund process and three that describe the management of the release, such as human exposure under control:

1. **Construction completion.** Indicates that the physical construction of the remedy EPA has selected to address the contamination is complete.
2. **Human exposure under control.** Measures the incremental progress EPA achieved in controlling unacceptable exposures to people at a site. A site may achieve this measure by reducing the level of contamination, preventing people from contacting the contaminants in-place, or controlling activities near the site (e.g., by reducing the potential frequency or duration of exposure of people to contaminants).
3. **Groundwater migration under control.** Assesses whether groundwater contamination is below protective, risk-based levels or, if

not, whether the migration of contaminated groundwater is stabilized and there is not unacceptable discharge to surface water and monitoring will be conducted to confirm that affected groundwater remains in the original area of contamination. EPA only uses this in sites with known past or present groundwater contamination.

4. **Site-Wide Ready for Anticipated Use.** All cleanup goals that may affect current and reasonably anticipated future land uses of the site have been achieved, so that there are no unacceptable risks and all institutional or other controls have been put in place.

**Appendix I: Site-wide Cleanup Status of
National Priorities List Sites with Known Native
American Interest**

Table 1 below shows the site-wide cleanup status, according to EPA, of the 83 sites on or deleted from the NPL with known NAI. This table provides data on site-wide milestones obtained from EPA's SEMS database, as well as a brief overview of each site using information from publicly available EPA documents, the EPA website, and additional information provided by EPA officials. Table 2 below lists the 5 sites with known NAI that EPA has proposed for the NPL.

Table 1: Site-wide Cleanup Status of Active and Deleted National Priorities List (NPL) Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
AK	Salt Chuck Mine	Organized Village of Kasaan	2010	The Salt Chuck Mine site is an inactive former gold, silver, copper, and palladium mine on Prince of Wales Island in southeast Alaska. Operations at the site were suspended in 1941. The site includes abandoned mine workings and mine mill equipment. Contaminants include polychlorinated biphenyls (PCBs), copper, lead, and arsenic. In 2011, EPA started a remedial investigation of the upland and adjacent marine areas to evaluate potential risk to human health and the environment. The investigation was completed in March 2018, and EPA determined that there are currently no unacceptable human health risks identified for the site and that ecological risks are limited to copper in marine sediment in areas used for tailings disposal.	milestone not met	milestone met	milestone met	milestone not met
AZ	Tucson International Airport Area	Tohono O'odham Nation of Arizona	1983	The Tucson International Airport Area site comprises a 10-mile square area in and next to Tucson, Arizona. The site includes the Tucson International Airport, portions of the Tohono O'odham Indian Reservation, residential areas of Tucson and South Tucson, and the Air Force Plant #44 Raytheon Missile Systems Company. Former aircraft and electronics manufacturing activities, fire drill training activities, and unlined landfills have contaminated groundwater and soil with volatile organic compounds, metals and PCBs. Remedial activities include: groundwater pumping and treatment, soil removal, and soil vapor extraction. Groundwater cleanup actions, operation and maintenance activities, and site monitoring are ongoing. As of July 2018, EPA reports that water treatment systems have significantly reduced the groundwater plume size and chemical concentrations in groundwater.	milestone not met	milestone met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
CA	Iron Mountain Mine	Yocha Dehe Wintun Nation, California	1983	The 4,400-acre Iron Mountain Mine site near Redding, California produced iron, silver, gold, copper, zinc and pyrite. Though mining operations were discontinued, underground mine workings, waste rock dumps, piles of mine tailings, and an open mine pit remain at the site. Much of the acidic mine drainage is channeled into the Spring Creek Reservoir. About 70,000 people use surface water within 3 miles of the mine as their source of drinking water. The installation and operation of a full-scale neutralization system, capping of areas of the mine, and the construction and operation of a retention reservoir to collect contaminated runoff for treatment have significantly reduced acid and metal contamination in surface water at the site. Site investigations and cleanup are ongoing.	milestone not met	milestone met	milestone not met	milestone not met
CA	Celtor Chemical Works ^b	Hoopa Valley Tribe, California	1983	The 3.2-acre Celtor Chemical Works site, located on the Hoopa Valley Indian Reservation, is the location of a former ore concentrating facility that processed sulfide ore. Wastes from the operations and processed ore generated acidic runoff and elevated metal concentrations in the soils throughout the site. The Trinity River flows along the site boundary and is the only local fish source for the Hoopa Indians. Cleanup included off-site disposal of contaminated materials; backfilling and contouring land; and revegetation and diversion of springs away from contaminated areas. After cleanup, EPA took the site off the NPL in 2003. According to EPA officials, in 2016, additional waste was discovered at the site, resulting in additional remedial investigation to determine the nature and extent of contamination.	milestone met	milestone met	milestone not met	milestone met

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State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
CA	Leviathan Mine	Washoe Tribe of Nevada & California	2000	<p>The Leviathan Mine is an abandoned open-pit mine near Markleeville, California, on the eastern slope of the Sierra Nevada Mountains at an elevation of 7,000 feet. The site is drained by Leviathan and Aspen Creeks, which are tributaries to the East Fork of the Carson River, a major western Nevada water supply source. The mine operated intermittently between 1863 and 1962. In the early days of mining, copper sulfate was mined from the property and utilized for processing silver ore at the Comstock Mines in Virginia City, Nevada. According to EPA officials, mine operations were originally underground, but surface mining of sulfur ore began in the 1950s. These officials told us that, mining operations disturbed and exposed existing mineral-rich rock and soil, which produced residual mine waste rock. Surface runoff from snowmelt and precipitation become contaminated by contact with the mineral-rich rock and associated waste rock. Officials told us that water capture and treatment plants at the site have improved the quality of downstream surface water and watershed health. These officials also noted that site assessment and cleanup is ongoing.</p>	milestone not met	milestone not met	milestone not met	milestone not met
CA	Sulphur Bank Mercury Mine	Elem Indian Colony of Pomo Indians of the Sulphur Bank Rancheria, California	1990	<p>The 150-acre Sulphur Bank Mercury Mine site near Clearlake Oaks, California, is an abandoned open pit mercury mine located on the shoreline of Clear Lake. This mine operated intermittently between 1865 and 1957 and mined sulphur and mercury. Former mining activities at the site contaminated soils, sediment, and surface water with mercury and arsenic. Approximately 2 million cubic yards of mine wastes and tailings remain on the mine site. Mercury contaminates lake sediment and is bio-concentrated in the food web of Clear Lake. The levels of mercury in fish from the lake led the State to issue an advisory to limit consumption of local fish. Clear Lake is also a drinking water source for 4,700 people. Cleanup has included erosion control, soil removal from residential yards, and surface water diversion. After immediate actions to protect human health and the environment, site investigations and long-term cleanup planning are ongoing.</p>	milestone not met	milestone not met	milestone not met	milestone not met

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State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
CO	Bonita Peak Mining District	Navajo Nation, Arizona, New Mexico and Utah; Ute Mountain Ute Tribe; Southern Ute Indian Tribe of the Southern Ute Reservation, Colorado; Ute Indian Tribe of the Uintah & Ouray Reservation, Utah	2016	The Bonita Peak Mining District site consists of 48 historic mines or mining-related sources of contamination in unincorporated parts of Colorado. Historic mining operations have contaminated soil, groundwater, and surface water with heavy metals. Additionally, ongoing releases of metal-contaminated water and sediment are occurring within the Mineral Creek, Cement Creek, and Upper Animas River drainages in San Juan County, Colorado. EPA and other stakeholders conducted a remedial investigation and feasibility study in 2017. Ongoing cleanup activity includes an interim water treatment plant to treat acid mine drainage and management of non-hazardous sludge. EPA plans to use the remedial investigation to determine further cleanup options at the site.	milestone not met	milestone not met	milestone not met	milestone not met
ID	Idaho National Engineering Laboratory (Department of Energy)	Shoshone-Bannock Tribes of the Fort Hall Reservation	1989	The 890-square-mile Idaho National Engineering Laboratory site is located near Idaho Falls, Idaho. The site consists of a number of major facilities that contribute contaminants to and draw water from the Snake River Plain Aquifer. One of these facilities is a National Reactor Testing Station built by the Atomic Energy Commission in 1949 to build, test, and operate various nuclear reactors, fuel processing plants, and support facilities. Site activities also led to the discharge of liquid wastes to several unlined ponds and an earthen ditch. The site includes contaminated soil, sludge, and groundwater that contain hazardous chemicals, heavy metals, and radioactive constituents. The site is divided into several cleanup areas to better address site cleanup. Remedy construction has been completed in several of these areas, and remedial design and construction are underway at the remaining areas.	milestone not met	milestone met	milestone met	milestone not met

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State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
ID	Bunker Hill Mining and Metallurgical Complex	Coeur D'Alene Tribe	1983	Also known as the Coeur d'Alene Basin Cleanup, the Bunker Hill Mining and Metallurgical Complex site is located in northern Idaho and eastern Washington, in one of the largest historical mining districts in the world. The site spans 1,500 square miles and includes 166 miles of rivers. Mining operations began in the area in 1883 and continue today. Historical mining and milling methods led to disposal of tailings in rivers and streams, which resulted in the spread of contaminants throughout the floodplain of the South Fork Coeur d'Alene River. Smelter operations also resulted in emissions and piles of waste rock. Soil, sediment, groundwater, and surface water are contaminated with heavy metals such as lead, which pose serious risks to people and the environment. Since 1983, EPA and its partners have made progress in cleaning up contamination, including cleaning some mine and mill sites, and establishing waste repositories to securely contain contaminated soil to reduce impacts to people and the environment. Site remediation is ongoing.	milestone not met	milestone not met	milestone not met	milestone not met
ID	Eastern Michaud Flats Contamination	Shoshone-Bannock Tribes of the Fort Hall Reservation	1990	The 2,530-acre Eastern Michaud Flats Contamination site near Pocatello, Idaho, consists of two phosphate ore processing facilities that began operations in the 1940s. One facility continues to produce solid and liquid fertilizers using phosphate ore, sulfur, air, and natural gas. The other produced elemental phosphorus for use in a variety of products from cleaning compounds to foods. Cleanup at this facility is largely located within Fort Hall Indian Reservation boundaries. Operations at both plants contaminated groundwater and soil with metals including arsenic, lead, and cadmium. Cleanup includes capping contaminated soils, extraction and containment of contaminated groundwater, and groundwater monitoring. Site cleanup began in 2010 and is ongoing.	milestone not met	milestone met	milestone not met	milestone not met

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KS	Cherokee County	The Quapaw Tribe of Indians	1983	The Cherokee County Superfund site is a former mining area in southeast Kansas covering about 115 square miles. It is part of a larger regional mining area known as the Tri-State Mining District, where more than 100 years of mining for lead and zinc created piles of mine tailings covering more than 4,000 acres. The mine tailings contaminated groundwater with lead, zinc, and cadmium. Millions of cubic yards of mine tailings are present at the surface, in addition to impacted soils, surface water, sediment, and groundwater. Several cleanup activities have been completed and others are underway. Site-wide, nearly 3 million cubic yards of mining wastes have been remediated on nearly 2,000 acres, more than 700 residential yards have been remediated, and more than 500 homes have been supplied with a clean, permanent source of drinking water.	milestone not met	milestone not met	milestone not met	milestone not met
MA	Otis Air National Guard Base/Camp Edwards	Wampanoag Tribe of Gay Head (Aquinnah); Mashpee Wampanoag Tribe	1989	Otis Air National Guard Base and Camp Edwards together form Joint Base Cape Cod, a 22,000-acre property used for military training activities since 1911. It is the sole source aquifer for 200,000 year-round and 500,000 seasonal residents of Cape Cod. Parts of the aquifer have been contaminated by fuel spills, training activities, waste disposal, and other past activities at the base. Cleanup of a portion of the site is managed by the U.S. Air Force, which is addressing the sources of and groundwater contamination primarily on Otis Air National Guard under the authority of Superfund. Contaminated areas were the result of chemical and fuel spills, fire training activities, landfills, and drainage structures. Since 1984, when contaminants were first detected in monitoring wells, numerous investigations and cleanups have been undertaken and completed. Currently, nine groundwater plumes are undergoing extraction and treatment. The Air Force's land use control program ensures that groundwater remedies are protective until cleanup levels are met.	milestone met	milestone met	milestone met	milestone met

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MA	Creese and Cook Tannery (Former)	Wampanoag Tribe of Gay Head (Aquinnah); Mashpee Wampanoag Tribe	2013	The Creese and Cook Tannery site is located in Danvers, Massachusetts. Leather tanning operations took place on-site from about 1903 through the 1980s. Solid tanning wastes were disposed of in two landfills at the site. Liquid waste was discharged to the Crane River until 1975 and later to sewers, while sludge waste was deposited in an on-site lagoon system. Operations led to contamination of surface and subsurface soils with tannery wastes, and contaminants, particularly arsenic, exceed state health-based standards in multiple locations. In 2012 EPA conducted a removal of contaminated surface soil and disposed of this soil off-site. EPA issued a proposed cleanup plan for the site in October 2018.	milestone not met	milestone not met	milestone not met	milestone not met
MA	New Bedford	Wampanoag Tribe of Gay Head (Aquinnah); Mashpee Wampanoag Tribe	1983	The New Bedford harbor is an 18,000-acre urban estuary with sediment highly contaminated with PCBs and heavy metals. From the 1940s until EPA banned the production of PCBs in the 1970s, two manufacturing facilities improperly disposed of industrial wastes containing PCBs, contaminating the harbor bottom for about 6 miles from the Acushnet River into Buzzards Bay. After extensive testing of water quality, harbor sediment, air quality, and locally caught fish and shellfish, EPA concluded that the PCBs in the sediment posed a serious risk to human health and the environment. EPA has placed restrictions on fishing, shellfishing and lobstering in and around the harbor. EPA has addressed approximately 450,000 cubic yards of contaminated sediment in the upper harbor as of April 2017 and plans to dredge and dispose of over 200,000 cubic yards of contamination from the lower harbor. According to EPA, the site cleanup will require an additional 5 to 7 years and significant funding to finish.	milestone not met	milestone not met	milestone not met	milestone not met

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ME	Loring Air Force Base	Aroostook Band of Micmacs	1990	The Loring Air Force Base site is located in Limestone, Maine. Loring Air Force Base was one of the first to be designed and built to accommodate high-speed aircraft, and construction ended in 1953. Activities at the site, including maintenance of jet engines, generated waste oils, recoverable fuels, spent solvents and cleaners. These wastes contaminated soil, groundwater, surface water, and sediment at a number of areas across the former base. Cleanup activities include relocation of contaminated soil, bioremediation of groundwater, and capping of disposal areas. The Air Force is leading the site cleanup until goals have been achieved. The Air Force is conducting operation and maintenance and long-term monitoring activities.	milestone met	milestone met	milestone met	milestone met
ME	Eastland Woolen Mill	Penobscot Nation	1999	The 25-acre Eastland Woolen Mill Superfund site is located in the Town of Corinna, Maine. Prior to closing in 1996, the mill manufactured dyed wool and blended woven fabric. The dyeing operation utilized various chemicals, including dyes and dye-aids that reportedly contained biphenyl and chlorinated benzene compounds. Liquid wastes were discharged to the ground beneath mill buildings until 1977. As a result, soil and bedrock underlying the mill were contaminated with chlorinated benzene compounds. Long-term cleanup and environmental monitoring are ongoing. In 2012, EPA completed a partial deletion action to remove 80% of the land area from NPL designation and facilitate reuse. EPA completed the second Five-Year Review in 2015.	milestone met	milestone met	milestone met	milestone not met

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ME	Eastern Surplus	Passamaquoddy Tribe	1996	The Eastern Surplus site is a 5 acre area in Meddybemps, Maine. From 1946 through the early 1980s, the Eastern Surplus Company, a retailer of army surplus and salvage items, operated on the site. Facility operations contaminated soil and groundwater with hazardous chemicals, including volatile organic compounds and calcium carbide. After immediate actions to protect human health and the environment, remediation activities included excavating soils, extracting and treating contaminated groundwater, and disposing of gas cylinders. Operation and maintenance activities and monitoring are ongoing.	milestone met	milestone met	milestone met	milestone met
MI	Velsicol Chemical Corporation (Michigan)	Saginaw Chippewa Indian Tribe of Michigan	1983	Velsicol Chemical Corporation produced various chemical compounds and products at its 54-acre plant in St. Louis, Michigan, from 1936 through 1978. Products included the fire retardant polybrominated biphenyl and the pesticide DDT. To address contamination on-site, Velsicol agreed to construct a slurry wall around the former plant and put a clay cap over it. The Pine River, which borders the former main plant site on three sides, was significantly contaminated. In response, the state of Michigan issued a no-consumption advisory for all fish species. Over 670,000 cubic yards of DDT-contaminated sediment were removed and disposed of off-site in an approved landfill. DDT levels in fish have been reduced by more than 98 percent. In the early 2000s, studies showed the slurry wall and clay cap at the main plant site were failing to keep contamination out of the river. In response, EPA and Michigan's Department of Environmental Quality (MDEQ) launched a remedial investigation and feasibility study at the main plant site and concluded that soil and groundwater were contaminated. In June 2006, EPA selected a remedy that included a comprehensive cleanup of the main plant site and a residential soil cleanup. During the residential cleanup, EPA excavated and disposed of 50,000 tons of contaminated soil at an off-site landfill. Currently, EPA and MDEQ are completing a remedial investigation in the Pine River downstream of the former chemical plant property.	milestone met	milestone not met	milestone not met	milestone not met

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MI	Allied Paper, Incorporated/Portage Creek/Kalamazoo River	Match-e-be-nash-she-wish Band of Pottawatomis Indians of Michigan; Pokagon Band of Potawatomi Indians, Michigan and Indiana; Nottawaseppi Huron Band of the Potawatomi, Michigan	1990	The Allied Paper, Incorporated/Portage Creek/Kalamazoo River site affects Kalamazoo, Michigan, 80 miles of the Kalamazoo River (from Morrow Dam to Lake Michigan), and 3-mile stretch of Portage Creek. Paper mill properties, riverbanks and floodplains have been contaminated with PCBs. EPA has removed contaminated materials from the site, cleaned and restored 7 miles of the Kalamazoo River and banks and capped 82 acres worth of contaminated materials. In the portions of the site where cleanup has concluded, EPA conducts maintenance activities and monitors groundwater. For two areas contaminating the river that have not yet been cleaned up, EPA has decided on cleanup plans and has taken actions to prevent migration of contamination to the Kalamazoo River or Portage Creek. EPA has decided on cleanup plans for approximately a portion of the 80 mile stretch of the Kalamazoo River and Portage Creek that require remediation.	milestone not met	milestone not met	milestone met	milestone not met
MI	Petoskey Manufacturing Company Groundwater	Little Traverse Bay Bands of Odawa Indians, Michigan	1983	The Petoskey Manufacturing Company, or PMC, contained a die casting plant from the 1940s and a painting operation from the mid- to late-1960s. Disposal of spent solvents and paint sludge onto the ground outside the PMC building contaminated soil and groundwater at the site with volatile organic compounds. Contaminated groundwater reached a nearby municipal well that provided drinking water to city residents. The city replaced the contaminated well with a new groundwater source. Currently, EPA and Michigan Department of Environmental Quality are evaluating the site for potential vapor intrusion issues into condominiums built on top of the former PMC source area.	milestone met	milestone met	milestone met	milestone met

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MI	Grand Traverse Overall Supply Company	Grand Traverse Band of Ottawa and Chippewa Indians, Michigan	1983	<p>Grand Traverse Overall Supply was a commercial laundering and dry cleaning facility opened in 1953. Activities at the site between 1955 and 1968 included construction of a dry well and seepage lagoons to collect waste. In 1977 the facility began discharging waste to the sewer. A year later, the Michigan Department of Environmental Quality discovered groundwater contaminated with volatile organic compounds such as trichloroethylene and perchloroethylene that impacted at least 10 wells, including one that supplied water to an adjacent elementary school. Contaminated wells were abandoned and new wells drilled. Waste lagoons were drained and filled with gravel, and the contaminated soils around the dry well and on-site barrels of waste sludge were removed in the 1970s. In providing technical comments on a draft of this report, EPA officials told us that remedial actions at the site began with soil removal activities around 2009, and that a groundwater pump and treat system was installed in 2012 and improved in 2015. These officials told us the site is expected to reach cleanup goals within approximately 5 years.</p>	milestone met	milestone met	milestone met	milestone not met

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MI	Cannelton Industries, Incorporated	Sault Ste. Marie Tribe of Chippewa Indians, Michigan; Bay Mills Indian Community, Michigan	1990	Northwestern Leather Company operated a tannery on the 75-acre Cannelton Industries Incorporated site in Sault Sainte Marie, Michigan from 1900 to 1958. A portion of the site is located within the 100-year floodplain of the St. Mary's River. Waste disposal operations contaminated soils, sediment and the river with heavy metals, including chromium, lead, cadmium, arsenic and mercury. EPA's initial long-term remedy for the site included the excavation and consolidation of contaminated waste material, soils, and river sediment into an on-site landfill, collection and treatment of groundwater, groundwater monitoring, and land use restrictions for the landfilled area. In commenting on a draft of our report, EPA officials told us the remedy was amended to include excavation and removal of contaminated soil and tannery waste and other waste materials from portions of the site. Construction of these remedies took place in 1999. In 2006 and 2007, additional dredging operations removed 40,000 cubic yards of contaminated sediment, about 500,000 pounds of chromium and 25 pounds of mercury from Tannery Bay and nearby wetlands. Subsequent sampling in 2014 showed mercury or chromium in Tannery Bay and an adjacent wetland. In providing technical comments on a draft of this report, officials noted that 2016 sampling also showed mercury in Tannery Bay surface water and adjacent wetland. EPA is reviewing the current monitoring requirements and protocols, as well as the cleanup goals. The monitoring portion of the operations and maintenance plan will be revised based on EPA's findings. EPA officials told us that the agency has initiated a partial deletion of the site from the NPL to enable reuse of some remediated site areas.	milestone met	milestone met	milestone met	milestone met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
MI	Tar Lake	Grand Traverse Band of Ottawa Indians, Michigan	1983	The 200-acre Tar Lake site in Mancelona Township, Michigan was an iron works facility from 1882 through 1945. Disposal of tar waste contaminated soil and groundwater with hazardous chemicals, including tar waste and creosote. Cleanup activities included excavation and disposal of tar and contaminated soils, and groundwater extraction and treatment. After initial cleanup, operation and maintenance activities are ongoing. EPA has conducted several 5-year reviews of the site's remedy. EPA did additional sampling at the site in 2011 and 2012 and identified the need for additional soil excavation and expansion of the groundwater treatment system. In providing technical comments on a draft of this report, EPA officials told us that additional cleanup will begin in 2020 and last several years. EPA has deleted part of the site from the NPL.	milestone met	milestone met	milestone not met	milestone not met
MI	Torch Lake	Keweenaw Bay Indian Community, Michigan	1986	The Torch Lake site is located on the Keweenaw Peninsula in Michigan. The site includes several areas ranging in size from about 10 acres to more than 200 acres. Copper mining activities in the area from the 1890s through 1969 produced mill tailings that contaminated lake sediment and the shoreline. Cleanup included covering 800 acres of slag piles and tailings with soil and vegetation, and long-term monitoring of Torch Lake. After cleanup, operation and maintenance activities are ongoing.	milestone met	milestone met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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MN	St. Louis River Site	Minnesota Chippewa Tribe, Minnesota (Grand Portage Band and Fond du Lac Band); Lac du Flambeau Band of Lake Superior Chippewa Indians; Sokaogon Chippewa Community, Wisconsin.	1984	<p>The St. Louis River site is located at the west end of Duluth, Minnesota, and includes several areas of land next to the St. Louis River, several boat slips, and a wide section of the river known as Spirit Lake. The site overall has been divided into two smaller sites, both managed by the state of Minnesota. The first area, known as the St. Louis River/Interlake/Duluth Tar (SLRIDT) site includes 255 acres of land, boat launch ramps and bays of the St. Louis River. From the 1890s through 1962, a variety of industrial plants operated at the site, including a coking plant, and tar and chemical plants. The second site, U.S. Steel comprises 500 acres of land and 200 acres of the St. Louis River. The area was contaminated by a steel mill that operated on-site between 1916 and 1981. Operations at both sites contaminated soil and underwater sediment with hazardous chemicals, including solid wastes, PCB liquids and drums. The sites are currently in different phases of cleanup. Cleanup of the land portion of the SLRIDT was substantially completed by 2001, and cleanup of the contaminated sediment by 2010. However, in its most recent 5-year review, the Minnesota Pollution Control Agency noted several smaller areas of contaminated materials that will require additional cleanup. U.S. Steel conducted multiple cleanups at their site since the 1990s and many of the actions required by EPA's record of decision have been completed. However, in its most recent 5-year review, the Minnesota Pollution Control Agency concluded that while some cleaned-up areas continue to be protective of human health and the environment, some areas of the site are not protective. EPA officials also told us that the U.S. Steel site has also contaminated a part of the St. Louis River known as Spirit Lake. According to these officials, the cleanup of Spirit Lake, including associated tribal consultation, is planned through a partnership led by EPA's Great Lakes National Program Office.</p>	milestone not met	milestone not met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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MN	St. Regis Paper Company	Minnesota Chippewa Tribe, Minnesota (Leech Lake Band)	1984	The 125-acre St. Regis Paper Company site is located within the external boundaries of the Leech Lake Band of Ojibwe Indian Reservation in Cass Lake, Minnesota. The wood-treatment facility operated from the 1950s through the 1980s using creosote and pentachlorophenol (PCP). The facility's operations contaminated soil and groundwater with hazardous chemicals, including PCP, dioxin and polycyclic aromatic hydrocarbons (PAH). Remedies put in place include water treatment and soil containment. Subsequent assessment demonstrated unacceptable potential risks from groundwater and surface soil contamination. EPA proposed a cleanup plan in March 2016 to address soil contamination in residential areas. EPA has determined there are no current unacceptable human risks.	milestone not met	milestone met	milestone not met	milestone not met
MT	Anaconda Company Smelter	Confederated Salish and Kootenai Tribes of the Flathead Reservation	1983	The 300-square-mile Anaconda Company Smelter site is near Anaconda, Montana. Anaconda operated a large copper concentrating and smelting operation on the north side of Warm Springs Creek until about 1901. Around 1902, ore processing and smelting operations began at a separate facility that is included in the site. Operations at the Anaconda Smelter ceased in 1980 and the smelter facilities were dismantled soon thereafter. More than a century of milling and smelting operations resulted in high concentrations of arsenic, lead, copper, cadmium, and zinc in groundwater and surface water. Cleanup included testing and remediation of domestic wells, removal of waste from the nearby community, construction of nearly 1,000 acres of wetland, and 30,000 feet of stream restoration. Operation and maintenance activities are ongoing in areas where cleanup is complete. In other areas, cleanup is still in progress. EPA has determined that remedies that have been completed are protective of human health and the environment. Where remedies are not complete, access is controlled to prevent human exposure to waste.	milestone not met	milestone not met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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MT	Anaconda Aluminum Co. Columbia Falls Reduction Plant ^c	Confederated Salish and Kootenai Tribes of the Flathead Reservation	2016	The Anaconda Aluminum Co. Columbia Falls Reduction Plant site is located two miles northeast of Columbia Falls in Flathead County, Montana. The site includes approximately 960 acres north of the Flathead River, a fishery that includes the federally designated, threatened bull trout and the federally sensitive westslope cutthroat trout. From 1955 through 2009, an aluminum smelting plant operated at the site, and produced significant quantities of hazardous wastes as a byproduct of the aluminum smelting process. The types of hazardous wastes produced at the site are known to contain cyanide compounds that can leach into groundwater. In 1988, EPA requested a site investigation that revealed that there were high concentrations of polycyclic aromatic hydrocarbons at the site, primarily in soils and sediments, and that there had been a release of cyanide to groundwater and surface water; both of these findings were attributed to activities at the former smelting plant. The remedial investigation and feasibility study of the site is in progress, and the results of the investigation will determine cleanup needs and identify potential cleanup options at the site.	milestone not met	milestone not met	milestone not met	milestone not met
MT	Silver Bow Creek and Butte Area	Confederated Salish and Kootenai Tribes of the Flathead Reservation	1983	The Silver Bow Creek and Butte Area site is in Butte, Montana, and includes 26 miles of stream and streamside habitat. Since the late 1800s, mining wastes have been dumped into streams and wetlands near mining operations. These activities contaminated soil, groundwater, and surface water with heavy metals. From 1988 to 2005, EPA completed several removal actions to clean up areas around former smelter sites, mine waste dumps, railroad beds, stream banks and channels, and residential yards to address immediate human health and environmental risks. Operation and maintenance, sampling, and monitoring actions are ongoing. EPA agreed to future cleanup work at the site in January 2018, including removal of contaminated soils, removal of sediment and floodplain waste, and construction of stormwater basins and sedimentation bays.	milestone not met	milestone not met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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MT	Milltown Reservoir Sediments	Confederated Salish and Kootenai Tribes of the Flathead Reservation	1983	<p>The Milltown Reservoir Sediments site near Missoula, Montana includes about 540 acres in the Clark Fork River and Blackfoot River floodplain and 120 miles of the Clark Fork River upstream of the Milltown Dam and Reservoir, which are located at the confluence of the Clark Fork and Blackfoot Rivers. From the 1860s until well into the 20th century, mineral- and arsenic-laden waste from mining activities in the region flowed into the Clark Fork River. As contaminated sediment and mine-mill waste moved downstream, about 6.6 million cubic yards of sediment accumulated behind the Milltown Dam. Mining activities and the downstream transport of mining-related wastes contaminated sediment, surface water, and groundwater with heavy metals. Remedy construction began in 2006, much of the site has been cleaned up, and remedy construction is underway to address remaining contamination. The site's long-term remedy includes construction of a bypass channel at the reservoir; removal of contaminated reservoir sediment; off-site disposal and use of contaminated sediment as vegetative cap material; removal of the Milltown Dam; continuation of a replacement water supply program and implementation of temporary groundwater controls until the Milltown aquifer recovers; and long-term monitoring of surface and groundwater. Remedy construction is ongoing.</p>	milestone not met	milestone met	milestone met	milestone not met

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NC	Barber Orchard	Eastern Band of Cherokee Indians	2001	<p>The 438-acre Barber Orchard site in Haywood County, North Carolina, includes the area where Barber Apple Orchard operated from 1908 through 1988. Facility operations resulted in contaminated groundwater and soil. Contaminants include arsenic, lead, and pesticides such as DDT, aldrin, and dieldrin that can be found in groundwater or soils on residential properties built on the former orchard. EPA removed soil in contaminated areas and, in a 2011 proposed cleanup plan proposed long-term monitoring of contaminated groundwater with the expectation that soil remediation will positively affect groundwater contamination. EPA has determined that the contaminated groundwater does not currently threaten people living and working near or on the site. EPA officials told us that in 2004, the town of Waynesville extended its municipal water system throughout the Orchard, and since the completion of the soil cleanup in 2011, new homes have been constructed within the boundaries of the Orchard.</p>	milestone met	milestone met	milestone met	milestone met

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NC	Benfield Industries, Incorporated	Eastern Band of Cherokee Indians	1989	<p>The 3.5-acre Benfield Industries site in Waynesville, North Carolina, includes the area where Benfield Industries mixed and packaged materials bought in bulk for resale in smaller amounts from 1971 through 1983. The facility handled and stored paint thinners, solvents, sealants, cleaners, de-icing solutions and wood preservatives. Between 1990 and 1992, EPA conducted the remedial investigation and feasibility study using federal funding. The cleanup included excavating and washing contaminated soil, biotreating contaminated slurries, and placing the cleaned soil and slurry in excavated areas. Following soil treatment, EPA graded and planted seed. According to EPA officials, a groundwater extraction system was installed and was operated between 2001 and 2007. However, a 2007 report concluded that it was no longer an effective groundwater remedy, and that monitored natural attenuation may be a more effective remedy. Consequently, EPA shut down the system in June 2007. Agency officials told us the agency recently completed a pilot scale treatability study in which chemicals were injected into the subsurface to destroy residual wood preservatives that were adversely impacting groundwater quality. According to EPA, the agency will be using the information gained from this treatability study in the forthcoming remedial design.</p>	milestone met	milestone met	milestone met	milestone met

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NM	Homestake Mining Company	Navajo Nation, Arizona, New Mexico and Utah; Pueblo of Acoma; Pueblo of Laguna	1983	The Homestake Mining Company site in Cibola County, New Mexico includes a former uranium mill demolished from 1993 through 1995 and the impacted portions of the underlying groundwater aquifers. Uranium milling operations began at the site in 1958 under a license issued by the Atomic Energy Commission. Site operations and seepage from two tailings impoundments contaminated soil and groundwater with hazardous chemicals including uranium, selenium, radium-226, radium-228, thorium-230 and nitrate. Nearly 4.5 billion gallons of contaminated water have been removed and 540 million gallons of treated water have been injected into the aquifer. An average of 2 feet of contaminated soil was removed from the mill area and placed in the tailings impoundments. Cleanup is ongoing.	milestone met	milestone met	milestone met	milestone not met
NM	United Nuclear Corporation	Navajo Nation, Arizona, New Mexico and Utah	1983	The 125-acre United Nuclear Corporation site near Gallup, New Mexico, includes a former uranium ore tailings disposal area and processing mill that operated from 1977 through 1982. The facility processed uranium ore using a combination of crushing, grinding and acid-leach solvent extraction methods. Milling produced acidic slurry of ground rock and fluid tailings. Disposal of about 3.5 million tons of tailings took place in on-site impoundments. Facility operations contaminated soil and groundwater. Surface reclamation stabilized the mill tailings and protected the Rio Puerco from contamination spills. However, EPA notes that groundwater treatment has been difficult due to low groundwater recharge rates and extraction wells proved to accelerate movement of contaminated water rather than contain it. Consequently, EPA installed additional extraction wells in 2010. Cleanup activities and monitoring are ongoing.	milestone met	milestone met	milestone not met	milestone not met

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NM	Prewitt Abandoned Refinery	Navajo Nation, Arizona, New Mexico and Utah	1990	The 70-acre Prewitt Abandoned Refinery site is located near Prewitt, New Mexico. The refinery operated between 1938 and 1957. Refinery operations contaminated soil and groundwater with hazardous chemicals including asbestos and lead. Potentially responsible parties removed the refinery and other site structures; however, scattered demolished structures, foundations and exposed fill remained on-site. The remedy for surface soil is complete. The remedy for subsurface soil and water continues to be protective in the short term; however, EPA could not determine if the remedy is protective of human health and the environment in the long term, and the agency recommends new evaluations to characterize the quantity, composition and extent of various contaminants and exposure pathways at the site. EPA further recommends the evaluation of an alternative cleanup plan to enhance protectiveness at the site.	milestone met	milestone met	milestone met	milestone met
NM	North Railroad Avenue Plume	Pueblo of Santa Clara, New Mexico	1999	The 58-acre North Railroad Avenue Plume site is a contaminated groundwater plume in Española, New Mexico. The Norge Town laundromat and dry cleaning operation contaminated groundwater with tetrachloroethylene, trichloroethylene, cis-1,2-dichloroethylene and trans-1,2-dichloroethylene. The contaminated groundwater aquifer is the sole-source drinking water aquifer for the residents of City of Espanola and, the Pueblo of Santa Clara, as well as individual water supply wells near the site. The remedy consists of enhanced on-site bioremediation. The areas targeted for cleanup are the source area, soils with high contaminant levels, and contaminated shallow groundwater. EPA indicated that the remedy has reduced contamination in shallow groundwater but has not been effective in the deep aquifer; consequently, EPA initiated additional analysis in 2015.	milestone met	milestone met	milestone met	milestone not met

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NM	Jackpile-Paguate Uranium Mine	Pueblo of Laguna, New Mexico	2013	The Jackpile-Paguate Uranium Mine site is located on the Pueblo of Laguna, New Mexico, reservation and consists of three former leases. The former leaseholder, Anaconda Minerals Company, mined and operated a uranium mine at the site from 1952 through 1982. Out of a total of 7,868 leased acres, 2,656 acres were disturbed by mining. This disturbance originally included three open pits, 32 waste dumps and 23 sub-grade ore stockpiles, 4 topsoil stockpiles, and 66 acres of buildings and roads. Mining operations detrimentally affected surface water with hazardous chemicals in quantities sufficient to support listing onto the EPA National Priorities List for Superfund cleanup. Atlantic Richfield is currently undertaking the remedial investigation and feasibility study at the site.	milestone not met	milestone not met	milestone not met	milestone not met
NV	Carson River Mercury Site	Paiute-Shoshone Tribe of the Fallon Reservation and Colony, Nevada	1990	EPA officials told us that the Carson River Mercury site extends over more than a 130-mile length of the Carson River, beginning near Carson City, Nevada, and extending downstream to the Lahontan Valley. Contamination at the site is a legacy of the Comstock mining era of the late 1800s, when mercury was imported to the area for processing of gold and silver ore. The site includes mercury-contaminated soils at former mill sites; mercury contamination in fish and wildlife; and mercury contamination in waterways adjacent to the mill sites, including the water, sediment, and adjacent floodplain of the Carson River, Lahontan Reservoir, Carson Lake, Stillwater Wildlife Refuge, and Indian Lakes. Following excavation and removal of mercury-contaminated tailings and soils from the site to protect human health and the environment, site investigations and cleanup planning are ongoing.	milestone not met	milestone not met	milestone not met	milestone not met

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NY	Hooker (Hyde Park) ^b	Seneca Nation of Indians	1983	The Hooker (Hyde Park) site is located in Niagara Falls, New York. The 15-acre area was used for the disposal of about 80,000 tons of waste, some of it hazardous material, from 1953 through 1975, resulting in sediment and groundwater contamination with hazardous chemicals, including Aroclor 1248, chloroform, phenol, benzoic acid and chlorendic acid. Cleanup included establishment of a drain system around the landfill; treatment of liquids leaching from the landfill; capping of the landfill; and removal of contaminated soils and sediment. Site construction finished in 2003. EPA has determined that, since cleanup, the site no longer poses a threat to nearby residents or the environment. Long-term groundwater treatment and monitoring are ongoing.	milestone met	milestone met	milestone met	milestone met
NY	General Motors (Central Foundry Division)	Saint Regis Mohawk Tribe	1984	The General Motors (Central Foundry Division) site is located near Massena, New York. General Motors operated an aluminum diecasting plant on the site beginning in 1959 and used PCBs in the manufacturing process through 1980. Contamination resulted from General Motors' waste disposal practices. Completed cleanup actions include the installation of a cap on an industrial landfill to prevent the surface flow of contaminants and reduce potential air exposure from contaminants; dredging of the St. Lawrence River and placement of a cap on remaining sediment; remediation of two inactive lagoons; and creation of a 150-foot landfill setback along the border with the Saint Regis Mohawk reservation. The final significant cleanup is a 10-million-gallon industrial lagoon. EPA has conducted three 5-year reviews at the site and the owner is actively marketing the property for re-use or redevelopment.	milestone not met	milestone met	milestone not met	milestone not met

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NY	Peter Cooper	Seneca Nation of Indians	1998	The Peter Cooper site in Gowanda, New York, was the location of an animal glue and industrial adhesive manufacturing factory. Contamination was caused by the improper disposal of wastes derived from chrome-tanned hides. The waste material has been shown to contain elevated levels of chromium, arsenic, zinc, and several organic compounds. Remedial activity for the landfill contained more than 8 million tons of waste and included capping the landfill, putting in a gas venting system, and controlling leachate. A retaining wall prevents contaminants from reaching Cattaraugus Creek. Site investigations and cleanup are complete, and monitoring is ongoing.	milestone met	milestone met	milestone met	milestone met
NY	Onondaga Lake	Onondaga Nation	1994	The Onondaga Lake site includes a 4.6-square-mile lake bordering the City of Syracuse, New York, and four nearby towns and villages. The site also includes seven major and minor tributaries and upland sources of contamination from a 285-square-mile drainage basin. Onondaga Lake has been the recipient of industrial and municipal sewage discharges from the site for more than 100 years. Contaminants include chlorinated benzenes, mercury, and PCBs. Between 1998 and 2018 EPA selected cleanup remedies for several areas within the site. Cleanup activities include removing chlorobenzene from existing wells, cleaning storm drainage systems, construction of a lakeshore barrier wall, and groundwater collection and treatment systems. Site investigations and cleanup activities are ongoing in several areas of the site, including the Lower Ley Creek and Willis Avenue areas.	milestone not met	milestone not met	milestone not met	milestone not met

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NY	Cayuga Groundwater Contamination Site	Cayuga Nation	2002	The Cayuga Groundwater Contamination site covers about 4.8 square miles extending from Auburn to Union Springs, New York. The site is the former location of a facility where General Electric Company and its partners manufactured semiconductors. The site includes residential properties mixed with farmland, woodlands, and commercial areas. Contaminated groundwater at the site contains volatile organic compounds that are potentially harmful contaminants that easily evaporate in the air. EPA conducted a remedial investigation and feasibility study to determine the sources, nature, and extent of site contamination and to evaluate remedial alternatives. Remediation will depend on the characteristics identified, but will include bioremediation for the most contaminated area as well as natural processes to reduce the level of contamination to meet groundwater standards. EPA is requiring periodic collection and analyses of groundwater samples to verify that the level and extent of contaminants is declining. EPA is deferring a decision on how to clean up the groundwater in Area 3, and intends to further investigate that area prior to issuing a final cleanup decision.	milestone not met	milestone met	milestone not met	milestone not met
NY	Eighteen Mile Creek	Tuscarora Nation, Tonawanda Band of Seneca	2012	The Eighteen Mile Creek site consists of contaminated sediment, soil, and groundwater along approximately 15 miles of creek in Niagara County, New York. The site has a long history of industrial use dating to the 19 th century. Contamination, including PCBs and heavy metals, spans two areas: Eighteen Mile Creek corridor and the creek sediment to Lake Ontario. Possible sources of the contamination include releases from hazardous waste sites, industrial or municipal wastewater discharges, and disposal practices of manufacturers around the creek. EPA has demolished five contaminated residential properties and relocated the residents, completed the remedial investigation and issued a record of decision for the creek corridor in 2017, and is currently conducting the remedial investigation in the length of the river to Lake Ontario.	milestone not met	milestone not met	milestone not met	milestone not met

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OK	Wilcox Oil Company	The Muscogee (Creek) Nation; Sac & Fox Nation, Oklahoma; Cherokee Nation	2013	The approximately 145-acre Wilcox Oil Company site in Bristow, Oklahoma includes the inactive and abandoned Lorraine and Wilcox Oil Refineries, which operated from approximately 1915 through 1963. The main components of the refinery included a skimming plant, cracking unit, and redistillation battery with a vapor recovery system and continuous treating equipment. Refinery operations contaminated soil and sediment and left behind refinery waste material such as oil waste and sediment skimmed from crude oil, and potentially lead. Planning and implementation of the site's remedial investigation and feasibility study is ongoing.	milestone not met	milestone not met	milestone not met	milestone not met
OK	Hudson Refinery	Sac & Fox Nation, Oklahoma	1999	The 200-acre Hudson Refinery site housed an oil refinery from 1922 until 1982. The site included aboveground storage tanks, wastewater treatment impoundments, separators, stained soils, a land treatment unit, and loose and friable asbestos-containing material. Refinery operations contaminated soil, groundwater, surface water, and sediment. The site's long-term remedy, selected in 2007 and amended in 2010, included removal of asbestos-containing materials, coke tar, and scrap metal; soil and waste excavation with off-site disposal; excavation, stabilization, and off-site disposal of sediment from waste ponds and sumps; treatment of surface water from ponds with contaminated sediment; groundwater monitoring; and institutional controls, among others. Cleanup construction started in early 2010 and finished in October 2010. Operation and maintenance activities and monitoring are ongoing.	milestone met	milestone met	milestone met	milestone met

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OK	Oklahoma Refining Company	Caddo Nation of Oklahoma	1990	<p>The 160-acre Oklahoma Refining Company site in Cyril, Oklahoma contained an oil refinery operated by several different owners until 1984. Site operations contaminated soil, sediment, surface water, and groundwater with PAHs, volatile organic compounds, and metals. Long-term remedies included bioremediation; stabilization; neutralization, containment, and treatment of surface water and groundwater; and on-site disposal of excavated materials in a hazardous waste landfill. Remediation was completed in 2001 on the southern part of the site. Removal of hazardous waste was completed in 2006. EPA is currently evaluating long-term cleanup activities on the northern portion of the site.</p>	milestone not met	milestone met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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OK	Tar Creek (Ottawa County)	The Quapaw Tribe of Indians, Peoria Tribe of Indians of Oklahoma, Ottawa Tribe of Oklahoma, Wyandotte Nation, Seneca-Cayuga Nation, The Modoc Tribe of Oklahoma, Cherokee Nation, Eastern Shawnee Tribe of Oklahoma	1983	The Tar Creek site is located in Ottawa County, Oklahoma. According to EPA, the site itself has no clearly defined boundaries, but consists of areas within Ottawa County impacted by historical mining wastes. The site is part of the larger Tri-State Mining District that consists of historical lead and zinc mining areas in northeast Oklahoma, southeast Kansas, and southwest Missouri. The site first came to the attention of the State of Oklahoma and EPA in 1979, when water began flowing to the surface near Commerce, Oklahoma from underground mine areas, through abandoned boreholes. This surface discharge flowed into Tar Creek, and soon other discharge locations were observed near Tar Creek and the abandoned mining town of Douthat and Quapaw. As a result, Tar Creek and Beaver Creek were significantly impacted. EPA has defined five areas to focus on: surface water and groundwater; waste in residential areas that causes high blood lead levels in children; chemicals found in an office and laboratory complex; piles of mine and milling waste and smelter waste; and sediment and surface waters in seven watersheds within three states and nine tribal areas. Remedial efforts include plugging abandoned wells to prevent contamination of aquifers, cleanup of public areas and residences, removal of mining chemicals, and relocating mining waste on the surface. The Quapaw Tribe has led remedial efforts on portions of tribally owned properties located within Tar Creek. Cleanup is ongoing.	milestone not met	milestone not met	milestone not met	milestone not met
OK	Tulsa Fuel And Manufacturing	Ponca Tribe of Indians of Oklahoma	1999	The 61-acre Tulsa Fuel And Manufacturing site in Collinsville, Oklahoma, is the location of a former zinc smelter and lead roaster that operated from 1914 through 1925. Historical operations contaminated soil, sediment, and surface water with hazardous materials including zinc and lead. EPA selected a cleanup plan for the site that included on-site consolidation and capping of soil, sediment and waste material. Construction of the remedy began in August 2014 and is now completed.	milestone met	milestone met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	McCormick and Baxter Creosoting Company (Portland Plant)	Confederated Tribes of the Grand Ronde Community of Oregon; Confederated Tribes of the Umatilla Indian Reservation; Confederated Tribes of the Warm Springs Reservation of Oregon; Nez Perce Tribe; Confederated Tribes and Bands of the Yakama Nation	1994	The McCormick and Baxter Creosoting Company site is a former creosote wood treating facility located on the east bank of the Willamette River in Portland, Oregon. The company was founded in 1944 and continued operations until October 1991. This site is located within the Portland Harbor Superfund site, but was not included in the January 2017 Portland Harbor record of decision. The site encompasses approximately 41 acres of land and an additional 23 acres of contaminated river sediment. Site investigations confirm releases of wood-treating chemical compounds to soils, groundwater, and sediment. Remedial investigations identified three plumes of contaminated groundwater migrating toward surface waters. Completed cleanup activities include demolition of the McCormick and Baxter plant; soil excavation, treatment, and disposal; upland soil capping; installation of a subsurface barrier wall; contaminant recovery; construction of a multi-layer sediment cap in the Willamette River; monitoring and engineering; and institutional controls. Construction of site remedies finished in September 2005.	milestone met	milestone met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	Taylor Lumber and Treating	Confederated Tribes of the Grand Ronde Community of Oregon	2001	Taylor Lumber and Treating operated a wood-treating plant at the site near Sheridan, Oregon, from about 1946 until 2001. EPA found that wood-treating chemical spills, including creosote and pentachlorophenol, contaminated soil, roadside ditches, and groundwater at the site. In response, EPA constructed an underground slurry wall as part of the remedy beneath the wood-treating area to contain and extract the most contaminated groundwater to maintain hydraulic control within the barrier wall. The final cleanup included excavation of contaminated soils from 5 upland acres and from adjacent ditches flowing to the South Yamhill River; replacement of an existing asphalt cap in the wood-treating area with a new low permeability asphalt cap overlaying the underground slurry wall; disposal of material from stockpiled soil storage cells off-site; and upgrades to the storm water conveyance systems. EPA completed final cleanup in 2008. The property is now owned and operated by a private company, which has ongoing obligations related to property use restrictions, operations, and maintenance on the property. EPA conducted its second 5-year review in 2017.	milestone met	milestone met	milestone met	milestone met
OR	Harbor Oil Incorporated ^b	Confederated Tribes and Bands of the Yakama Nation	2003	The 4.2-acre Harbor Oil Incorporated site is located in Portland, Oregon, in an industrial area adjacent to Force Lake. A waste oil recycling facility currently operates on the site. Past site operations included a tank truck cleaning business, which was destroyed by a fire in 1979 that ruptured five 20,000-gallon aboveground used oil tanks. Site activities, the fire, and a large oil spill in 1974 contaminated soil, sediment and groundwater with metals, oil, pesticides, and PCBs. EPA ordered a previous operator to empty, clean, and dismantle a tank containing petroleum wastes. Remedial investigations determined that contamination does not pose an unacceptable risk to human health or the environment; therefore, no further cleanup is required.	milestone met	milestone met	milestone met	milestone met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	Gould, Incorporated ^b	Confederated Tribes and Bands of the Yakama Nation	1983	The 10-acre Gould, Incorporated site in Portland, Oregon housed a lead smelter and lead oxide production facility from 1949 until 1981. Site activities included on-site disposal of about 87,000 tons of battery casings and discharge of about 6 million gallons of acid into a nearby lake, which resulted in contaminated soils and lake sediment. EPA transferred the contaminated soils and sediment into a lined containment area at the site as part of the cleanup. EPA monitored groundwater at the site to determine if historic wastes adversely impacted shallow groundwater at the site. Based on this data, in 2000, EPA determined that no further groundwater cleanup actions were necessary. Groundwater monitoring near the containment area continues to ensure that the containment area has no adverse impact.	milestone met	milestone met	milestone met	milestone met
OR	North Ridge Estates	Klamath Tribes	2011	The North Ridge Estates site is a residential subdivision 3 miles north of Klamath Falls, Oregon that is contaminated with asbestos as a result of the improper demolition of approximately 80 1940s-era military barracks buildings. Asbestos-containing materials and soil are being removed from the old military barracks site during three seasons of cleanup from 2016 through 2018. Additional contamination at the nearby Kingsley Firing Range, also part of the site, will be investigated and completed at a later time. According to EPA, cleanup and restoration will be completed by the end of 2018.	milestone not met	milestone not met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	Formosa Mine	Cow Creek Band of Umpqua Tribe of Indians	2007	<p>The 76-acre Formosa Mine site is located on Silver Butte in Douglas County, Oregon. The site was originally mined for copper and silver from about 1910 through 1937. The abandoned mine discharges millions of gallons of acid rock drainage and toxic metals into the upper reaches of Middle Creek and South Fork Middle Creek every year. These discharges have contaminated surface water, groundwater, soil, and sediment with heavy metals. EPA is currently designing the remedy for all mine-impacted material on the surface and will address risks to surface and groundwater separately. The remedy for surface contamination consists of excavating, contouring, or capping various areas to prevent leaching during precipitation events.</p>	milestone not met	milestone met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	Portland Harbor	Confederated Tribes and Bands of the Yakama Nation; Confederated Tribes of the Grand Ronde Community of Oregon; Confederated Tribes of Siletz Indians of Oregon; Confederated Tribes of the Umatilla Indian Reservation; Confederated Tribes of the Warm Springs Reservation of Oregon; Nez Perce Tribe	2000	The Portland Harbor site includes portions in the Willamette River and about 12 river miles upstream of the Willamette River in and around Portland, Oregon, that have been contaminated from decades of industrial use. Areas of the site housed manufactured gas plants, a pesticide manufacturing facility, and boat maintenance facilities, among other industrial uses. Water and sediment at the site are contaminated with many hazardous substances, including PCBs, PAHs, dioxins/furans, pesticides, and heavy metals. The harbor is an international portal for commerce, and dozens of industries within the site provide economic sustainability to the community. The Lower Willamette is also a popular area for recreation, including fishing and boating. The river provides a critical migratory corridor and rearing habitat for salmon and steelhead, including endangered runs of steelhead and chinook. The area also holds great importance to several tribes as a natural and cultural resource. EPA issued its record of decision in January 2017 and finished its baseline sampling plan in December 2017. The record of decision specifies the remedy selected, which is designed to reduce risks to human health and the environment to acceptable levels and actively remediate (using dredging, capping, enhanced natural recovery, and monitored natural recovery) on 394 acres of contaminated sediment and 23,305 lineal feet of river bank. This final remedy is estimated to cost approximately \$1.05 billion and take about 13 years to complete.	milestone not met	milestone not met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
OR	Black Butte Mine	Confederated Tribes of the Grand Ronde Community of Oregon; Cow Creek Band of Umpqua Tribe of Indians	2010	The Black Butte Mine site is located near Cottage Grove, Oregon. Mercury mining from the late 1880s through the late 1960s included extracting ore from the mine, crushing it on-site, roasting it in kilns to volatilize the mercury, and bottling and shipping the mercury. Mining operations, tailings piles left at the site, and erosion from Furnace Creek contaminated soil, sediment, surface water, and groundwater with mercury and other toxic metals. EPA and its contractors are working in the Furnace Creek area of the site to excavate mine tailings and contaminated soils/sediment for safe disposal in an off-site repository. Removing the mine tailings will reduce mercury leaking into Furnace Creek and reduce the potential for mercury leaching into groundwater. Site investigations for the long-term cleanup are under way.	milestone not met	milestone not met	milestone not met	milestone not met
RI	Newport Naval Education and Training Center	Narragansett Indian Tribe	1989	The Newport Naval Education/Training Center site was used by the U.S. Navy as a refueling depot from 1900 through the mid-1970s. The site encompasses 1,063 acres on the west coast of Aquidneck Island in Portsmouth, Middletown, and Newport, Rhode Island. The site includes multiple areas of contamination, including a landfill, a fire training area, a former shipyard, and five tank farms. The areas contain varying degrees of groundwater contamination. The Navy is the lead agency for site investigation and cleanup. Site cleanup has included installation of a soil cover, use of a groundwater pump and treat system, and removal of contaminated debris.	milestone not met	milestone met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

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RI	Centredale Manor Restoration Project	Narragansett Indian Tribe	2000	The Centredale Manor Restoration Project site is located in North Providence, Rhode Island, where the main "source area" consists of about 9 acres down the Woonasquatucket River, south to the Lyman Mill Dam, and includes the restored Allendale Dam. The site was a chemical production and drum reconditioning facility from the 1940s to the 1970s that resulted in the release of dioxin and other contamination. Past site operations led to chemicals released directly to the ground, buried and emptied directly into the river. This resulted in contamination of soil, groundwater, surface water and sediment in the adjacent river and downstream ponds. A major fire in 1972 destroyed most structures at the site. Residential apartments were constructed at the site in the late 1970s and early 1980s and still occupy the site. To address immediate risks, EPA conducted several activities including fencing the site, capping contaminated soil, and reconstructing Allendale Dam. EPA developed the cleanup plan, with amendments, in 2012. EPA, the state of Rhode Island, and potentially responsible parties agreed in July 2018 on a plan to clean up contamination at the site.	milestone not met	milestone not met	milestone not met	milestone not met
SD	Whitewood Creek ^b	Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota	1983	The Whitewood Creek site covers an 18-mile stretch of Whitewood Creek in Lawrence, Meade, and Butte counties in South Dakota. Since the 1870s, gold mining operations in the area included the discharge of millions of tons of mine tailings into the creek. These mine tailings settled along the Whitewood Creek floodplain, contaminating soil, groundwater, and surface water with heavy metals. EPA excavated 4,500 cubic yards of contaminated soil from residential yards, disposed of contaminated soil, and established institutional controls and surface water monitoring. EPA took the site off the Superfund program's National Priorities List in 1996 when cleanup finished and affected counties restricted future development in impacted areas. Surface water monitoring is ongoing.	milestone met	milestone met	milestone met	milestone met

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SD	Gilt Edge Mine	Cheyenne River Sioux Tribe of the Cheyenne River Reservation, South Dakota	2000	The 360-acre Gilt Edge Mine site is located about 6.5 miles east of Lead, South Dakota. The primary mine disturbance area encompasses a former open pit and a cyanide heap-leach gold mine, as well as prior mine exploration activities from various companies. Mining and mineral processing at the site began in 1876 and early gold miners developed extensive underground workings that wind through the central portion of the site. There was also some surface mining. Historical operations at the site contaminated surface water and groundwater with acidic heavy-metal-laden water. In 1986, mine owners commenced development of a large-scale open pit, cyanide heap leach gold mine operation. In the late 1990s, site owners abandoned the site and their responsibilities to address acidic heavy-metal-laden water generated from the exposed highwalls of the three open mine pits and from the millions of cubic yards of acid-generating spent ore and waste rock. Investigation and cleanup activities at the site are ongoing. Interim remedies are currently in place for the water treatment, Lower Strawberry Creek, and Ruby Gulch Waste Rock Dump; and remedial action construction is in progress for the primary mine disturbance area.	milestone not met	milestone met	milestone met	milestone not met

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WA	Lower Duwamish Waterway	Muckleshoot Indian Tribe; Suquamish Indian Tribe of the Port Madison Reservation	2001	The Lower Duwamish Waterway site is a 5-mile segment of the Duwamish, Seattle, Washington's only river. The river flows between residential areas as well as through the industrial core of Seattle into Elliott Bay. The waterway has served as Seattle's major industrial corridor since the early 1900s, resulting in sediment contaminated with toxic chemicals from industrial practices, stormwater runoff, and wastewater. EPA has also found contamination in fish and shellfish, including PCBs, arsenic, polycyclic PAHs, dioxins, and furans. As a result, consumption of resident fish and shellfish, and contact with contaminated sediment pose a risk to human health. EPA signed the record of decision in 2014 that includes plans to clean up about 177 acres in the waterway, including dredging, capping, and natural sedimentation. By the end of 2015, 50 percent of PCB contamination in the river bottom was removed through these early action cleanups. Cleanup and monitoring activities are ongoing.	milestone not met	milestone not met	milestone not met	milestone not met
WA	Naval Undersea Warfare Engineering Station (4 Waste Areas)	Suquamish Indian Tribe of the Port Madison Reservation	1989	The 340-acre Naval Undersea Warfare Engineering Station site is located on a peninsula 15 miles west of Seattle. Site activities included torpedo maintenance, fuel storage, welding, painting, carpentry, plating, and sheet metal work. Site activities and waste disposal practices contaminated soil, sediment and groundwater with hazardous chemicals, including 1,4-Dioxane, chromium, and vinyl chloride. The site's long-term cleanup remedy included demolition of the plating shop building; removal and disposal of contaminated soil and sediment; removal of underground storage tanks; long-term monitoring of groundwater, sediment and shellfish; institutional controls; and phytoremediation to treat contaminated landfill soil. Remedy construction took place between 1995 and 2000. Site operation and maintenance activities, and site monitoring, are ongoing.	milestone met	milestone not met	milestone not met	milestone not met

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WA	Hanford 100-Area (Department of Energy)	Confederated Tribes and Bands of the Yakama Nation; Confederated Tribes of the Umatilla Indian Reservation; Nez Perce Tribe	1989	Four sites on the NPL are part of the 586-square-mile Hanford Nuclear Reservation near Richland, Washington, where waste was created as a by-product of producing plutonium from 1943 through 1987. The 25-square-mile Hanford 100-Area site, also referred to as the River Corridor, is focused on cleanup of contamination that originated from nine nuclear reactors. Cooling water contaminated with radioactive and hazardous chemicals was discharged into both the adjacent Columbia River and on-site infiltration cribs and trenches. Site operations also included burying contaminated solid wastes on-site. These activities contaminated soil and groundwater with radioactive constituents, heavy metals, and other hazardous chemicals. Contaminants have been addressed by demolishing buildings, removing contaminated soil, and employing pump and treat systems for contaminated groundwater, among others. EPA has selected eight interim remedies for the 100-Area and remedial investigations are under way to support selection of final cleanup remedies.	milestone not met	milestone met	milestone not met	milestone not met

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WA	Hanford 200-Area (Department of Energy)	Confederated Tribes and Bands of the Yakama Nation; Confederated Tribes of the Umatilla Indian Reservation; Nez Perce Tribe	1989	<p>Four sites on the NPL are part of the 586-square-mile Hanford Nuclear Reservation near Richland, Washington where waste was created as a by-product of producing plutonium and other nuclear materials for nuclear weapons from 1943 through 1987. The 79-square-mile 200-Area site is located 17 miles north-northwest of Richland, Washington. The 200-Area site is located in the center portion of the Hanford site, known as the Central Plateau, and contains former chemical processing plants and waste management facilities. During processing activities, massive quantities of carbon tetrachloride were discharged into the ground. Site activities also included processing, finishing and managing nuclear materials, including plutonium. About 1 billion cubic yards of solid and diluted liquid wastes (radioactive, mixed, and hazardous substances) were disposed in trenches, ditches, and in an on-site landfill. About 1,000 facilities and structures were built to support processing activities which contaminated soil, groundwater and surface water with hazardous chemicals and radioactive constituents. Thousands of containers and drums holding radioactive waste were placed in burial grounds. Remedial investigations, removal actions, and remedy design and construction are under way for more than 800 waste areas at the site. Cleanup actions included decontamination and demolition of contaminated structures; treatment of contaminated soil; excavation and off-site disposal of drummed wastes; institutional controls; and natural attenuation of groundwater contaminants. According to EPA, a remedy for one of the large canyon-type buildings is about halfway complete and is awaiting investigation and remediation of surrounding waste sites before it can be completed.</p>	milestone not met	milestone met	milestone not met	milestone not met

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WA	Hanford 300-Area (Department of Energy)	Confederated Tribes and Bands of the Yakama Nation; Confederated Tribes of the Umatilla Indian Reservation; Nez Perce Tribe	1989	<p>Four sites on the NPL are part of the 586-square-mile Hanford Nuclear Reservation near Richland, Washington where waste was created as a by-product of producing plutonium and other nuclear materials for nuclear weapons from 1943 through 1987. The 56 square mile Hanford 300 Area site was home to fuel manufacturing operations at Hanford as well as experimental and laboratory facilities. The 300-Area site includes an unlined liquid disposal area north of the on-site industrial complex area, landfills, and miscellaneous disposal sites associated with operations at the industrial complex. The 300-Area site contains about 27 million cubic yards of solid and diluted liquid wastes mixed with radioactive and hazardous wastes in ponds, trenches, and landfills. The areas used for liquid discharges had no outlets; therefore, liquids percolated through the soil into the groundwater and the Columbia River. Cleanup actions completed to date include decontamination and demolition of contaminated structures; natural attenuation of groundwater contaminants; and disposal of building rubble, contaminated soil, and debris. Remedy construction has been completed in several areas of the site and remedial investigations, removal actions, and remedy design and construction are under way at the remaining areas.</p>	milestone not met	milestone met	milestone met	milestone not met

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WA	Hanford 1100-Area (Department of Energy) ^b	Confederated Tribes and Bands of the Yakama Nation; Confederated Tribes of the Umatilla Indian Reservation; Nez Perce Tribe	1989	Four sites on the NPL are part of the 586-square-mile Hanford Nuclear Reservation near Richland, Washington where waste was created as a by-product of producing plutonium and other nuclear materials for nuclear weapons from 1943 through 1987. Waste areas in the 120-square-mile Hanford 1100-Area site include a landfill, drains, underground tanks and a sand pit where as many as 15,000 gallons of waste battery fluids may have been disposed. Past site activities and waste disposal practices contaminated soil and groundwater with heavy metals and hazardous chemicals such as PCBs and trichloroethene. Remedial activities include off-site disposal of PCB-contaminated soils, capping of the landfill, and establishing continuing institutional controls to prevent future exposure and contamination from buried asbestos. Following cleanup, EPA deleted the site from the NPL in 1996.	milestone met	milestone met	milestone met	milestone met
WA	Jackson Park Housing Complex (U.S. Navy)	Suquamish Indian Tribe of the Port Madison Reservation	1994	The 300-acre Jackson Park Housing Complex site is located in eastern Kitsap County, about 2 miles northwest of Bremerton, Washington. From 1904 through 1959, the facility operated as a Navy ammunition depot and included ordnance, manufacturing, processing, and disassembly. Residual ordnance powders were disposed of by open burning. Hazardous dust deposited on floors during ordnance handling was washed into floor drains that led into Ostrich Bay. The site also included incinerators; paint, battery, and machine shops; and a boiler plant. Site activities contaminated surface water and soil with hazardous chemicals and heavy metals. The site's long-term remedy included installation of a soil and vegetation cover over contaminated soil, shoreline stabilization, implementation of a shellfish sampling program, and signs along the shoreline to notify local residents of any harvest restrictions. Site cleanup also included the removal and off-site disposal of wooden pilings from abandoned Navy structures, excavation and disposal of contaminated soil, establishment of an environmental monitoring program, and subsurface placement of oxygen-releasing chemicals. Remedy construction began in 2000 and is ongoing.	milestone not met	milestone not met	milestone not met	milestone not met

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WA	Old Navy Dump/Manchester Laboratory (EPA/ National Oceanic and Atmospheric Administration)	Suquamish Indian Tribe of the Port Madison Reservation; Port Gamble S'Klallam Tribe	1994	The 53-acre Old Navy Dump/Manchester Laboratory site is located north of Manchester, Washington, along the western shore of Clam Bay in Puget Sound. Federal ownership of this site started in 1898 with the U.S. Army. In 1924, the entire site was transferred to the U.S. Navy. From the 1940s through the 1960s, the Navy used the site primarily for construction, repair, maintenance, and storage of submarine nets and boats, but also used the site for firefighter training and as a dump for wastes generated at the site. Former firefighter training activities contaminated soil with dioxins and petroleum hydrocarbons. The Navy also dumped demolition debris and industrial waste, including asbestos, into a former tidal lagoon, contaminating soil, sediment, seep water, and shellfish in Clam Bay with PCBs and metals. Clam Bay has been used primarily for recreational shellfishing and is a known habitat for the bald eagle and chinook salmon, a threatened species under the Endangered Species Act. In the early 1970s, EPA and the National Oceanic and Atmospheric Administration (NOAA) acquired portions of the property. The site is currently occupied by an EPA analytical laboratory and a NOAA fisheries research laboratory. The Army Corps of Engineers established in the third 5-year review in 2014 that the remedy at this site is protective of human health and the environment. Operation and maintenance activities and monitoring are ongoing.	milestone met	milestone met	milestone met	milestone met

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WA	Pacific Sound Resources	Muckleshoot Indian Tribe	1994	<p>The 83-acre Pacific Sound Resources site, formerly known as the Wyckoff West Seattle Wood Treating facility, is located on the south shore of Elliott Bay on Puget Sound in Seattle, Washington. A wood-treating facility operated at the site between 1909 and 1994. Wood-preserving operations used creosote, pentachlorophenol, and various metal-based solutions of copper, arsenic, and zinc. Daily operations, as well as spills, leaks and storage of treated wood products resulted in soil and groundwater contamination. Direct discharge or disposal of process wastes and waste transport were the most likely sources of contamination to marine sediment. Over half of the site is located in either intertidal or subtidal lands. Cleanup actions included the placement of subtidal and intertidal caps over the 58-acre marine sediment area, including placement of at least 5 feet of cap material in the intertidal zone; dredging and removal of contaminated sediment for off-site disposal; and removal of marine pilings for off-site disposal. Construction of long-term cleanup remedies concluded in 2005 and, following cleanup, operation and maintenance activities, including periodic groundwater monitoring, are ongoing.</p>	milestone met	milestone met	milestone met	milestone met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WA	Wyckoff Company/Eagle Harbor	Suquamish Indian Tribe of the Port Madison Reservation	1987	The Wyckoff Company / Eagle Harbor Superfund site is on the east side of Bainbridge Island in Central Puget Sound, Washington. The site was used for creosote wood treatment for more than 85 years, according to the Washington Department of Ecology. Environmental investigations revealed extensive contamination—including creosote, mercury, and other metals—in soils, groundwater, and in the sediment on the bottom of Eagle Harbor. EPA reports that extensive cleanup actions have been completed at the site, including operating a groundwater extraction and treatment system since 2012, capping sediment on more than 70 acres of Eagle Harbor, and hauling away contaminated soils and debris. Further cleanup actions are needed in the soil and groundwater at the former wood treatment facility and in adjacent beach sediment. In 2016 EPA released a proposed plan for additional cleanup actions at the site and, after a public comment period, divided the work into two cleanup decisions. The first was issued in May 2018 and the second is planned for issue near the end of 2018.	milestone not met	milestone not met	milestone met	milestone not met
WA	Pesticide Lab (Yakima) ^b	Confederated Tribes and Bands of the Yakama Nation	1983	The 10-acre Pesticide Lab site is an active agricultural research laboratory located at the Yakima Agricultural Research Laboratory in Yakima, Washington, and has been in operation since 1961. The site is leased by the U.S. Department of Agriculture (USDA). Wastes from the formulation, mixing, and storage of pesticide were discharged into a septic tank disposal system at the site from 1965 through 1985. USDA addressed cleanup under the Resource Conservation and Recovery Act. The site has been cleaned up and is no longer a threat to human health. Long-term monitoring is not required because cleanup left no contaminants of concern on the site. EPA deleted the site from the NPL in 1993.	milestone met	milestone met	milestone not met	milestone met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WA	Hidden Valley Landfill (Thun Field)	Puyallup Tribe of the Puyallup Reservation	1989	The 92-acre Hidden Valley Landfill site is located in Puyallup, Washington. The site contains a former landfill and gravel pit that operated from 1967 through 1985. The landfill accepted liquids, solids, industrial wastes, and heavy metal sludge. Waste disposal activities contaminated groundwater with hazardous chemicals and heavy metals. The site's long-term remedy included covering the waste with an impermeable barrier, collecting landfill gases, controlling surface water and soil erosion, and minimizing the lateral and vertical movement of contaminated groundwater. Remedy construction took place in 2000. Landfill gas and groundwater monitoring are ongoing.	milestone met	milestone met	milestone met	milestone met
WA	Tulalip Landfill ^b	Tulalip Tribes of Washington	1995	The Tulalip Landfill site, located within the boundaries of the Tulalip Indian reservation, is a former landfill located between Marysville and Everett, Washington. The site consists of a 147-acre landfill and 160 acres of wetlands. The Seattle Disposal Company operated the landfill from 1964 until 1979. The landfill received an estimated 3 million to 4 million tons of commercial and industrial waste. In 1979, landfill operators closed the landfill, added a soil cover, and constructed a perimeter barrier berm. However, insufficient grading of the soil cover resulted in poor drainage and allowed precipitation to collect and eventually infiltrate the landfill surface. As a result, the landfill contaminated groundwater, surface water and sediment with metals, pesticides, PCBs and polycyclic aromatic hydrocarbons. EPA's interim remedy for the landfill included capping the landfill and installing a landfill gas collection and treatment system, among other actions. EPA continued the interim remedy for the landfill and included institutional controls for the wetlands, such as placing and maintaining signs to warn of potential risk from harvest and consumption of resident fish and shellfish. The tribe is responsible for maintenance of the remedy, inspections, and sampling at the site.	milestone met	milestone met	milestone met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WA	Harbor Island (Lead)	Muckleshoot Indian Tribe; Suquamish Indian Tribe of the Port Madison Reservation	1983	Harbor Island is a 420-acre manmade island in Elliott Bay in Seattle Washington. The site includes the entire island and associated sediment. Built in the early 1900s, the island housed businesses that conduct commercial and industrial activities, including oil terminals, shipyards, rail transfer terminals, cold storage, and lumberyards. Site operations contaminated groundwater, sediment and soil with lead, PCBs, arsenic, mercury, and other contaminants. Remedial activities include removal and treatment of contaminated soil, treatment of groundwater, removal of approximately 6,000 creosote treated piles, and dredging sediment. Most portions of the site have been cleaned up and are undergoing long-term monitoring.	milestone not met	milestone not met	milestone met	milestone not met
WA	Commencement Bay, Near Shore/Tide Flats	Puyallup Tribe of the Puyallup Reservation	1983	The Commencement Bay, Near Shore/Tide Flats site is located in the City of Tacoma and the Town of Ruston at the southern end of Puget Sound in Washington. The site encompasses an active commercial seaport and includes 12 square miles of shallow water, shoreline, and adjacent land, most of which is highly developed and industrialized. EPA found widespread contamination of the water, sediment, and upland areas at the site and has divided the site into seven areas being managed as distinct cleanup sites. As part of this cleanup, EPA has remediated 2,436 properties with the worst contamination, restored 11 acres of shallow marine habitat, and restored 70 acres of estuarine habitat. The site's long-term remedy includes demolishing remaining buildings and structures, excavating soil and slag from the five most contaminated source areas on the site, depositing demolition debris in an on-site containment facility, and monitoring the impacts of cleanup on groundwater and off-shore marine sediment. Investigations and remedy construction are ongoing at the site.	milestone not met	milestone not met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WA	Midnite Mine	Confederated Tribes of the Colville Reservation; Spokane Tribe of the Spokane Reservation	2000	Midnite Mine is an inactive former uranium mine in the Selkirk Mountains of eastern Washington. Located within the reservation of the Spokane Tribe of Indians, the mine was operated from 1955 until 1981. The site includes two open pits, backfilled pits, a number of waste rock piles, and several ore/protore stockpiles. The site contamination has resulted in elevated levels of radioactivity and heavy metals mobilized in acid mine drainage, both of which pose a potential threat to human health and the environment. The site drains to Blue Creek, which enters the Spokane Arm of Franklin D. Roosevelt Lake. Contaminated water emerging below the waste rock and ore piles is currently captured for treatment in an on-site treatment system. Cleanup includes consolidation of mine waste rock, protore, and contaminated soils; backfilling these materials in lined pits; covering these pits to prevent water infiltration; and ongoing water treatment. According to EPA, significant cleanup is planned to occur between 2017 and 2024.	milestone not met	milestone not met	milestone not met	milestone not met
WA	Lockheed West Seattle	Muckleshoot Indian Tribe; Suquamish Indian Tribe of the Port Madison Reservation	2007	The 40-acre Lockheed West Seattle site is located in Elliott Bay near the mouth of the West Waterway in Seattle, Washington. The site includes about 7 acres of aquatic tidelands owned by the Port of Seattle and 33 acres of state-owned aquatic lands. Historic industrial practices at the former shipyard contaminated sediment with hazardous chemicals, including PCBs, dioxins, and furans. Industrial activities generated considerable quantities of sandblast grit and other industrial waste that discharged to sediment and accumulated beneath dry docks and shipways. The Lockheed Martin Corporation, as the potentially responsible party for the cleanup, will remove contamination from a 40-acre area in the northwest corner of the mouth of the West Waterway and north of the Port of Seattle's Terminal 5. An estimated total of 167,000 cubic yards of contaminated material will be removed over the course of the cleanup. According to EPA, the cleanup was to begin in 2018 and is anticipated to be completed in the spring of 2019.	milestone not met	milestone not met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WA	Makah Reservation Warmhouse Beach Dump	Makah Indian Tribe of the Makah Indian Reservation	2013	Makah Reservation Warmhouse Beach Dump is located within the Makah Indian Reservation at the northwest tip of the Olympic Peninsula in Washington. The site includes a former open dump on top of a ridge about 3 miles northwest of Neah Bay and two streams that originate within the dump and flow to East Beach and Warmhouse Beach. Municipal and household solid and hazardous wastes were disposed of at the dump from the 1970s until 2012. Elevated levels of metals, perchlorate and PCBs have been found in soil at the dump and in the sediment of both creeks. Mussels at the beach also contain elevated concentrations of lead; however, EPA has not determined whether this is from the dump or creeks. EPA is in the remedial investigation stage of the cleanup.	milestone not met	milestone not met	milestone not met	milestone not met
WA	Bremerton Gasworks	Suquamish Indian Tribe of the Port Madison Reservation	2012	Bremerton Gas Works is a former manufactured gas plant located about a mile and a half north of downtown Bremerton, Washington. It occupies about 2.8 acres of property along the Port Washington Narrows in Puget Sound. Two species of fish that are listed as threatened under the Endangered Species Act (steelhead trout and chinook salmon) live near the site. This portion of Puget Sound is used as a sport and commercial fishery, as well as for subsistence fishing by the Suquamish Indian Tribe. EPA is in the early stages of the cleanup process, conducting the remedial investigation and feasibility study, which EPA expects to complete in spring 2019.	milestone not met	milestone not met	milestone not met	milestone not met
WA	Hamilton/Labree Roads Groundwater Contamination	Cowlitz Indian Tribe	2000	The Hamilton/Labree Roads Groundwater Contamination site is located about 2 miles southwest of Chehalis, Washington. According to EPA, past site activities included spilling and dumping tetrachloroethene in Berwick Creek and burying drums and other containers of assorted hazardous chemicals on-site. The release at the site has contaminated soil, sediment, groundwater, and surface water. EPA's selected interim remedy includes rerouting Berwick Creek around contaminated areas, thermally treating tetrachloroethene-contaminated soil and sediment, and treating contaminated groundwater. Remedial design is under way.	milestone not met	milestone not met	milestone not met	milestone not met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WI	Penta Wood Products	St. Croix Chippewa Indians of Wisconsin	1996	Penta Wood Products site is located in the town of Siren in Burnett County, Wisconsin. A wood treatment facility operated at the site from 1953 until 1992, and used pentachlorophenol (PCP) to treat wood posts and telephone poles. Facility operations contaminated soil and groundwater with PCP and arsenic. During cleanup, EPA removed about 28 storage tanks containing liquid and sludge. Also, 43,000 gallons of a PCP/oil mixture and sludge were disposed of off-site. The treatment building was demolished and contaminated soil was cleaned on-site or disposed of off-site. Cleanup was completed in 2000, and operation and maintenance activities and monitoring are ongoing. In September 2014, the State of Wisconsin took over operations and maintenance activities at the site.	milestone met	milestone met	milestone met	milestone met

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Final or deleted site name	Tribe or tribes with known interest in the site	Year listed on NPL	Site overview ^a	Site-wide Cleanup Status: Construction completion (CC)	Site-wide Cleanup Status: Human exposure under control (HEUC)	Site-wide Cleanup Status: Groundwater migration under control (GWMUC)	Site-wide Cleanup Status: Site-wide ready for anticipated use (SWRAU)
WI	Ashland/Northern States Power Lakefront	Bad River Band of the Lake Superior Tribe of Chippewa Indians of the Bad River Reservation, Wisconsin; Red Cliff Band of Lake Superior Chippewa Indians of Wisconsin; Lac Vieux Desert Band of Lake Superior Chippewa Indians of Michigan	2002	The Ashland/Northern States Power Lakefront site is located on the shore of Chequamegon Bay, which is part of Lake Superior, in northern Wisconsin. The site consists of several properties, including those owned by Northern States Power Co. of Wisconsin, Canadian National Railroad and the city of Ashland. 16 acres of contaminated lake sediment just off-shore are also part of the site. The near-shore portion of the site was formed by the placement of fill consisting of sawdust, wood, and wood waste; demolition debris; and other waste materials. Contaminants including tar, oil, PAHs, volatile organic compounds, and metals have been found in sediment, groundwater, and soil. Contamination has also been found in an adjacent residential area. Because groundwater is contaminated at levels of health concern, two artesian wells have been closed as a precautionary measure. Access to a portion of the bay and shore is restricted for boats and swimmers because when sediment is agitated, oil and tar can be released causing a slick to form. Cleanup at the site is ongoing and is being overseen by the Wisconsin Department of Natural Resources and EPA. Phase 1, soil and groundwater cleanup under portions of the site was completed in 2016. This entailed removing contaminated soil, covering the area with clean material, and installing barriers to stop groundwater from migrating. Phase 2, the full-scale wet dredge in the Chequamegon Bay, was completed in 2018. EPA is conducting the first five-year review of the site.	milestone not met	milestone met	milestone met	milestone not met

Legend: X denotes the milestone was reached at the site
 – denotes that the milestone has not been met according to EPA data

Source: GAO analysis of EPA data. | GAO-19-123

^aAll site overview information, unless otherwise attributed, is from publicly available EPA records of decisions or other sources, as of September 2018.

^bThese are deleted National Priorities List (NPL) sites, but there is ongoing tribal interest.

^cIn providing technical comments on a draft of this report, the Confederated Salish and Kootenai Tribes of the Flathead Reservation identified this additional site.

Table 2: Proposed National Priorities National Priorities List (NPL) Sites with Known Native American Interest

State	Name of Site Proposed to the NPL ^a	Site Overview ^b	Tribe or Tribes with Interest in the Site
ID	Blackbird Mine	<p>Blackbird Mine is located 25 miles west of the town of Salmon in the Salmon-Challis National Forest in east-central Idaho. Cobalt, silver, and copper ore were extracted from underground and open-pit mining operations. Contaminated soil, sediment and tailings were released from the mine site during high water flows from thunderstorms and snowmelt. Acid rock drainage and leachate from the mining tunnels, waste piles, and tailings contaminated soil, sediment, surface water, and groundwater with heavy metals such as copper, cobalt, and arsenic. Affected surface waters include Blackbird Creek, the South Fork of the Big Deer Creek, Big Deer Creek, and Panther Creek. Since 1995, cleanup actions have collected contaminated runoff water in the mine area and treated it for copper and cobalt. Cleanup actions have also stabilized waste-rock piles at the mine. Remedy construction is complete except for determining whether to divert Bucktail Creek. Post-construction monitoring of these cleanup activities is ongoing.</p>	Shoshone-Bannock Tribes of the Fort Hall Reservation
MA	General Electric-Housatonic River	<p>Since the early 1900s, General Electric operated a large-scale industrial facility that manufactured and serviced power transformers, defense and aerospace materials, and plastics, and used numerous industrial chemicals at its Pittsfield facility. Years of PCB and industrial chemical use, and improper disposal, led to extensive contamination around Pittsfield, Massachusetts as well as down the entire length of the Housatonic River, which is approximately 150 miles from its source on the East Branch in Hinsdale, Massachusetts and flows through Connecticut into Long Island Sound. After testing groundwater, river sediment, soil, and wildlife, EPA determined that the contamination needed to be addressed and that the greatest concern in the area is the possibility of direct contact or ingestion of PCB contamination. Since 1977, there has been a ban on fishing and consumption of fish from areas of the Housatonic River. These restrictions will remain in place until PCB levels decrease. Data are collected to ensure that the current restrictions protect human health. EPA collects information regarding PCBs in fish and shellfish. In addition to PCBs, other industrial compounds present at the site pose an unacceptable risk to people and the environment.</p>	Wampanoag Tribe of Gay Head (Aquinnah); Stockbridge Munsee Community, Wisconsin

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Name of Site Proposed to the NPL ^a	Site Overview ^b	Tribe or Tribes with Interest in the Site
MT	Smurfit-Stone Mill Frenchtown	<p>The Smurfit-Stone Mill Frenchtown site is located 11 miles northwest of Missoula, Montana. The 3,200-acre site formerly housed a pulp mill that operated from 1957 through 2010. The core industrial footprint of the mill site covers about 100 acres, and there are more than 900 additional acres containing a series of unlined ponds used to store treated and untreated wastewater from the mill, as well as sludge recovered from untreated wastewater. The site also includes landfills used to dispose of solid wastes, including general mill refuse and asbestos. Various hazardous substances were used or produced on-site, including bleaching chemicals that produced dioxins and furans that may have been released into the environment. A screening investigation by EPA determined that the site's primary contamination sources include four sludge ponds, an emergency spill pond, an exposed soil pile adjacent to a landfill, a wastewater storage pond, and a soil land farming area. The results of the investigation will determine cleanup needs and identify potential cleanup options at the site.</p>	Confederated Salish and Kootenai Tribes of the Flathead Reservation
NV	Anaconda Copper Mine	<p>The Anaconda Copper Mine site covers more than 3,400 acres of the Mason Valley, near the city of Yerington, Nevada. Portions of the site are owned by a company, while other areas are public lands managed by the U.S. Bureau of Land Management. Nevada Department of Environmental Protection and EPA have conducted several emergency removal actions at the site to address immediate concerns. Remedial investigations and feasibility studies will be conducted to determine the extent of contamination and potential cleanup options for other areas at the site.</p>	Walker River Paiute Tribe of the Walker River Reservation, Nevada; Yerington Paiute Tribe of the Yerington Colony & Campbell Ranch, Nevada

Appendix I: Site-wide Cleanup Status of National Priorities List Sites with Known Native American Interest

State	Name of Site Proposed to the NPL ^a	Site Overview ^b	Tribe or Tribes with Interest in the Site
WI	Fox River Natural Resource Damage Assessment/Polychlorinated Biphenyls Releases	The Lower Fox River, located in northeastern Wisconsin, begins at the Menasha and Neenah channels leading from Lake Winnebago and flows northeast for 39 miles to where it discharges into Green Bay and Lake Michigan. The Fox River Natural Resource Damage Assessment / Polychlorinated Bisphenyls Releases site addresses releases caused by operations of several pulp and paper mills that, during the 1950s and 1960s, routinely used PCBs in their operations that resulted in contamination of the river. Samples from the site also indicate the presence of polycyclic aromatic hydrocarbons resulting from manufactured gas plant processes co-mingled or underneath the PCB contamination. Approximately 270,000 people live in the communities along the river. 2018 is the 10th year of dredging in the Lower Fox River, and EPA estimates 450,000 cubic yards of PCB-contaminated sediment will be removed before the end of the year. In addition, about 2.1 acres of sediment will be capped and 179 acres will be covered with sand. EPA plans to oversee a second 5 year review in 2019.	Oneida Nation; Menominee Indian Tribe of Wisconsin; Little Traverse Bay Bands of Odawa Indians, Michigan

Source: GAO analysis of EPA data. | GAO-19-123

^aThese sites are proposed for the NPL and have not completed Superfund's public comment and review process to be formally listed on the NPL. Of these sites, only Blackbird Mine has met a site-wide performance measure; it has groundwater migration under control.

^bAll site overview information, unless otherwise attributed, is from publicly available EPA records of decisions or other sources, as of September 2018.

Appendix II: Objectives, Scope, and Methodology

This report (1) examines the extent to which the U.S. Environmental Protection Agency (EPA) has reliable data identifying National Priorities List (NPL) sites that are located on tribal property or that affect tribes, (2) examines the extent to which EPA has reliable data on the agency's consultation with tribes and (3) describes what actions, if any, EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at NPL sites.

To examine the extent to which EPA has reliable data identifying NPL sites that are located on tribal property or that affect tribes, we reviewed relevant provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 as amended and policies and guidance regarding EPA's identification and clean-up of NPL sites. We obtained and evaluated EPA data from the Superfund Enterprise Management System (SEMS) on proposed, final, and deleted NPL remedial sites that have tribes associated with them or that EPA has designated as having Native American Interest (NAI). We limited our review to examining proposed, final, and deleted NPL sites because they represent sites with the highest national priority due to the significance of releases, or threatened releases, of hazardous substances. EPA also indicated whether such sites may be located within 10 miles of known tribal property by comparing the sites' coordinates to the tribal geographic location as recorded in publicly available EPA data. We also obtained information about whether a site was considered a federal facility because other federal agencies may have different consultation policies than EPA. We did not determine whether EPA has information about consultation with tribes for sites considered federal facilities.

EPA initially identified 265 NPL Superfund sites that were on tribal property, had NAI, had a tribe or tribes with potential interest in the site, or may have been within 10 miles of tribal property. We then worked with EPA headquarters officials and each regional office to perform data quality checks and identify any errors or omissions, in order to develop a revised list of a total of 87 NPL sites—of which 11 were federal facilities—known to affect tribes or to be located on tribal property. As an example of the data quality checks, officials from each EPA regional office reviewed

the list of sites for their respective regions and made corrections to the sites' designation as having NAI or tribes with interest in the sites. As another example, we compared data from EPA's Tribal Consultation Opportunity Tracking System (TCOTS) database with the list of sites EPA provided us and determined that a tribal consultation had occurred for a site that EPA had not identified as having NAI. We checked with officials from the appropriate EPA regional office and they told us that the site should have been designated as having NAI, so we added it to our list. We also interviewed officials from EPA's headquarters and regional offices to better understand the agency's management, use, and the reliability of these data. In providing comments on a draft of this report, the Confederated Salish and Kootenai Tribes of the Flathead Reservation identified an additional site that was not included in EPA's data, which we reviewed with EPA and added to our list of NPL sites known to be on tribal property or that affect tribes, bringing the total to 88 sites. We recognize that there may be additional sites at which there is tribal interest but determined that the data were sufficiently reliable to provide information on NPL sites known to be on tribal property or that affect tribes, and to select six sites for nongeneralizable case studies for our work. We did not select case studies from sites located on federal facilities because federal agencies may have different tribal consultation policies. For the case studies, we selected sites based on geographic diversity, and in order to represent sites that have been listed since the publication of EPA's tribal consultation policy in 2011. We also selected sites that had at least two assessments or inspections performed according to EPA data so the tribes would have sufficient information to share with us about their experiences. In one of the case studies, we had to change to a different site from the same region when the tribe associated with the site we had initially selected did not wish to participate. We chose a replacement site in the same EPA region that was at a similar point in the cleanup process as the site we originally selected.

To examine whether EPA has reliable data regarding its consultation with tribes about NPL sites, we reviewed EPA-specific guidance that applies to tribal consultation on NPL sites. We evaluated data from EPA's TCOTS, reviewed related agency documentation, interviewed knowledgeable agency officials, and compared TCOTS data with other information EPA provided. Specifically, we compared data from TCOTS with information that officials from EPA headquarters and each EPA region provided to us regarding consultation for each of the nonfederal sites that had NAI. In order to determine the frequency with which EPA consults with tribes on cleanup actions of NPL sites, we examined and compared available data

on consultation from the TCOTS system with other information provided by EPA in light of EPA's consultation guidance. We also interviewed officials from EPA and selected tribes from our six nongeneralizable case studies regarding consultation. While we selected case studies based on nonfederal NPL sites EPA has identified as being on tribal property or affecting tribes, our interviews with tribal and EPA officials covered a broader range of sites and included officials' views about any Superfund activities in which they had been involved. For each case study, we requested information documenting EPA's consultation with tribes as well as any materials that demonstrated whether and how agency decisions took into account unique tribal needs associated with the site. We also conducted semi-structured interviews with officials from the tribe or tribes involved at each of our case study sites, as well as EPA regional officials for the region in which the site is located. We visited the Jackpile-Paguate Uranium Mine site and conducted interviews with tribal officials in person. We evaluated EPA and tribal officials' experiences with consultation at our selected case study sites based on EPA's consultation policies.

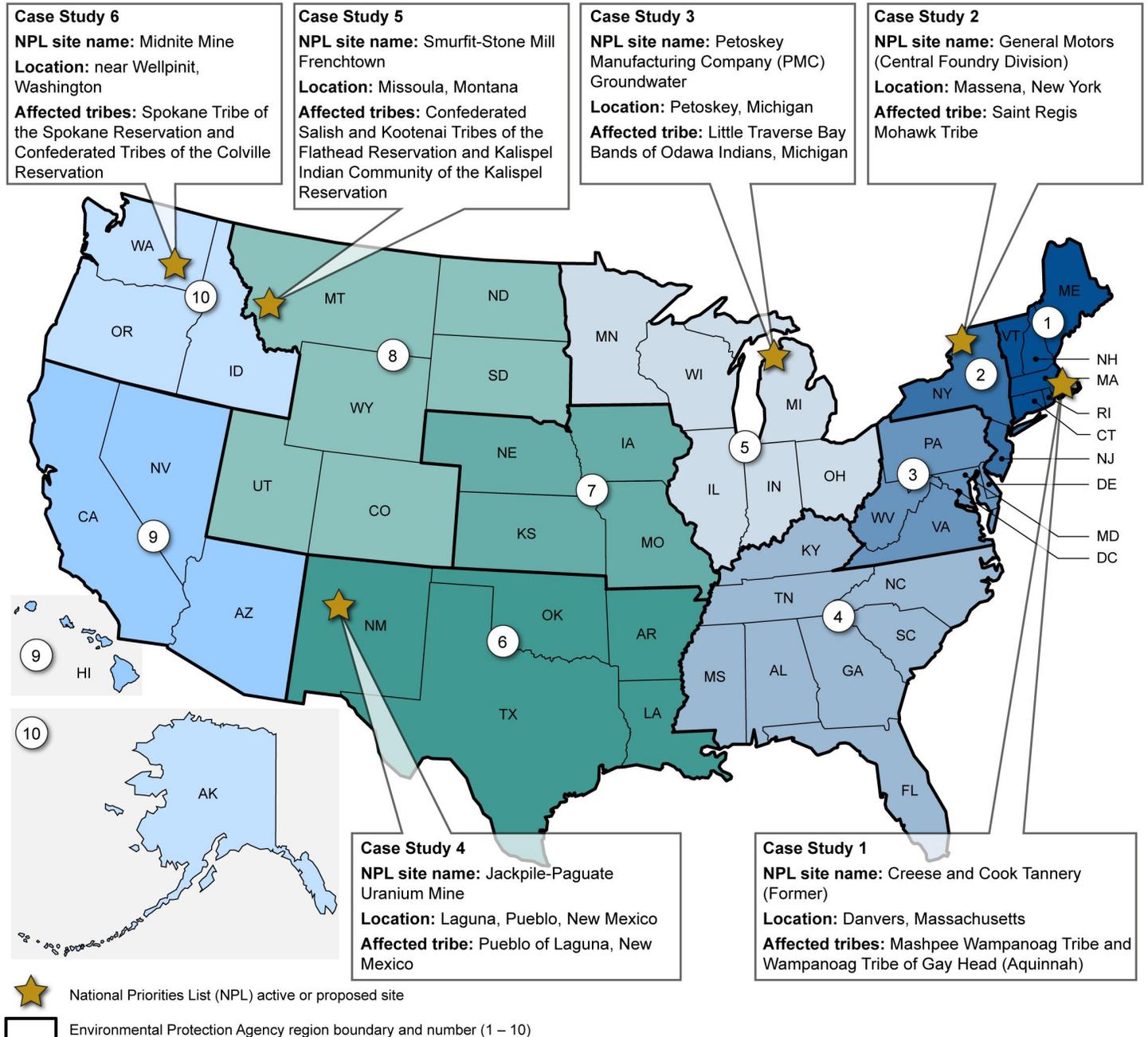
To describe what actions EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at NPL sites, we interviewed EPA officials from the regional offices associated with our selected case study sites about consultation regarding our case study sites, as well as at other NPL sites that affect tribes in their region. We also conducted semi-structured interviews with tribal officials who had consulted or coordinated with EPA regarding each of the selected sites in our review. We asked the tribes to describe the effects of the site on any unique needs such as subsistence fishing and gathering, and whether EPA has explored or addressed these needs during the agency's cleanup actions.

We conducted this performance audit from May 2017 to January 2019 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix III: Description of Case Study Sites

To analyze examples of consultation and better understand the tribal perspective on consultation with the Environmental Protection Agency (EPA), we conducted six nongeneralizable case studies of final or proposed National Priorities List (NPL) sites with Native American Interest (NAI). We selected these case studies on the basis of geographic diversity and in order to represent sites that have been listed since the publication of EPA's tribal consultation policy in 2011. For each of these case studies, we collected documentation and interviewed the relevant tribal and EPA regional officials. Figure 2 provides an overview of these case studies.

Figure 2: Overview of the Six NPL Case Studies



Source: GAO analysis of Environmental Protection Agency data; Map Resources (map). | GAO-19-123

Case Study 1: Creese and Cook Tannery (Former)—EPA Region 1

General Information on the Site

According to EPA, the Creese and Cook Tannery site is located on the Crane River in Danvers, Massachusetts. According to an October 2018 proposed cleanup plan, several businesses operated at the site, including leather tanneries that operated from the late 1800s until the early 1980s and a former railroad station. Use of arsenic and chromium at tanneries resulted in these chemicals contaminating soil at the site. Other soil contaminants include dioxins, furans, and polycyclic aromatic hydrocarbons from railroad operations, combustion, and use of asphalt pavement. In the mid-1980s, the Massachusetts Department of Environmental Protection conducted an initial investigation to determine the nature and extent of contamination and evaluate the potential remedial options under state law. The department then reviewed and approved, pursuant to state law, a plan for excavation of the waste and its placement in a containment cell. EPA began investigations in 2010 and found arsenic in surface soils. As a result, in 2012 EPA removed 450 tons of contaminated soil from the site. EPA conducted six site assessments, including an archaeological assessment, and placed the site on the NPL in 2013.

Site Status in Cleanup Process

The site is in the early stages of the cleanup process. The feasibility study for the site was completed in September 2018, and EPA issued a cleanup proposal for comment in October 2018. According to information provided by EPA, the site has not yet reached any Superfund site-wide milestones because the remedial action has not begun.

Tribal Interest in the Site

EPA officials stated that both the Mashpee Wampanoag Tribe and Wampanoag Tribe of Gay Head (Aquinnah) have expressed interest in the site due to possible adverse impacts on significant cultural resources in the contaminated area. EPA officials told us they notified both tribes of the site concurrently with notification to the Massachusetts Historical Commission in August 2014. In a consultation response form dated

September 2014, the Mashpee Wampanoag Tribe indicated that the cleanup has the potential to have adverse effects on historical or cultural resources important to the tribe and requested that the tribe be notified prior to any archaeological activity on-site, and that they be provided any archaeological assessment documents.

EPA's Consultation and Coordination with the Tribes for the Site

The National Historic Preservation Act requires federal agencies to take into account the effects of their undertakings on historic properties, including properties to which Indian tribes attach religious and cultural significance.¹ According to EPA Region 1 officials, they are consulting with both tribes under the act. EPA sent an archaeological survey to the tribes in June 2017. Officials from the Mashpee Wampanoag Tribe indicated that they agree with the survey's findings and required that consultation continue. EPA officials told us that the Wampanoag Tribe of Gay Head (Aquinnah) did not comment on the assessment. Both tribes have asked EPA to inform them of cleanup status for the site and share any reports.

Perspectives of Tribal and EPA Officials on Consultation and Coordination for the Site

EPA officials told us they were consulting with both tribes under section 106 of the National Historic Preservation Act. Officials also told us that EPA will negotiate a memorandum of understanding with both tribes once the final cleanup is selected, if it is determined that the selected remedy will have an adverse effect on any resources that are eligible for the National Register of Historic Places. With regard to coordination, both tribes noted that resource constraints prevent their further involvement with the site cleanup process. Officials from the Wampanoag of Gay Head (Aquinnah) tribe indicated that EPA has been available for discussions if the tribe raises an issue.

¹In particular, agencies must complete a process mandated in regulations implementing section 106 of the National Historic Preservation Act issued by the Advisory Council on Historic Preservation. EPA sent the archaeology survey to the tribe as part of the section 106 process.

Case Study 2: General Motors (Central Foundry Division)—EPA Region 2

General Information on the Site

The General Motors (Central Foundry Division) site is located on the St. Lawrence River in Massena, New York, adjacent to the Saint Regis Mohawk Tribe's reservation. According to an EPA document, General Motors operated an aluminum die casting plant on the site beginning in 1959 and used polychlorinated biphenyls (PCB) in the manufacturing process through 1980. EPA found contamination in soils and industrial lagoons on the General Motors site property, in groundwater, in the St. Lawrence and Raquette Rivers, in Turtle Cove, and in soils and sediment within the Saint Regis Mohawk reservation. After General Motors' bankruptcy, ownership of the site was transferred to a trust. This General Motors site was placed on the Superfund NPL in September 1983.

Site Status in Cleanup Process

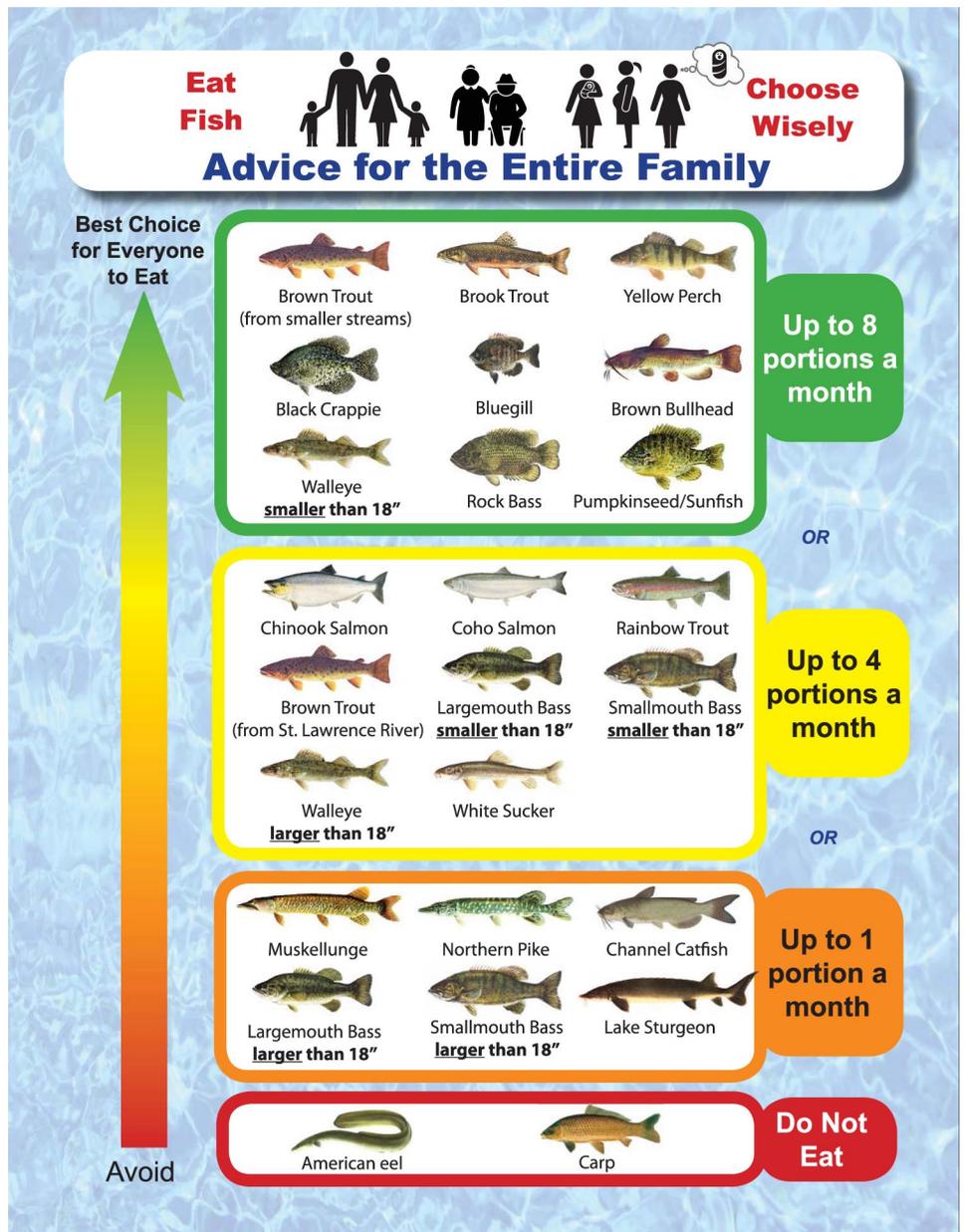
According to information provided by EPA, the cleanup of the General Motors site is ongoing, with the last substantial cleanup of the Remedial Design and Remedial Action phase focused on a 10-million-gallon industrial lagoon. To date, contractors have dredged sediment in the St. Lawrence River, Turtle Cove, and Raquette River systems. EPA officials told us that, in addition to these dredging activities, they have completed other significant cleanup work, including installation of a groundwater collection system, installation of a multi-layer cap on the industrial landfill on-site, and demolition of the 1-million-square-foot factory building. EPA officials stated that consultation with the tribe led to excavating a portion of the industrial landfill in order to establish a 150-foot buffer between a landfill on the site and the tribe's reservation. EPA declared human exposure to contaminants at the site under control in 2008. EPA officials told us there is no requirement to consult with tribes to determine that site-wide milestones have been reached, and that the Saint Regis Mohawk Tribe was not consulted regarding the designation of human exposure under control. Tribal officials do not agree with this determination and stated that EPA has not asked the tribe for any input on this measure. EPA officials responded that while EPA did not consult with the tribe on the human exposure under control environmental indicator, they coordinated extensively with the tribe with respect to

cleanup status, strategy, and site-wide milestones prior to making the designation.

Tribal Interest in the Site

Tribal officials noted concern regarding contamination of tribal property and the effect on subsistence fishing in the St. Lawrence River and tribal member health. The Saint Regis Mohawk Tribe is concerned that PCB contamination from the site is airborne and affecting the health of tribal members. Further, the tribe is concerned that PCB accumulation in fish tissue results in fish that are unsafe to eat in the quantities typically consumed by tribal members who rely on subsistence fishing. See figure 3 below for a fish consumption advisory issued by the tribe because of PCB contamination concerns. Tribal officials also told us the tribe is concerned that PCBs may be transferred through breast milk, exposing future generations to the contamination. Tribal officials told us that tribal members also complain of a strong odor emanating from the site, and have advocated for the tribe to take a more active role in the site cleanup.

Figure 3: Saint Regis Mohawk Family Guide to Eating Locally-Caught Fish



Saint Regis Mohawk Family Guide to Eating Locally-Caught Fish

Source: © Saint Regis Mohawk Tribe. | GAO-19-123

Note: This figure was published by the Saint Regis Mohawk Tribe in 2013 as part of a guide to eating locally-caught fish; however, fish consumption advisories were in effect prior to publication of this figure.

EPA's Consultation and Coordination with the Tribe for the Site

According to EPA, the agency sent an official consultation letter to the tribe in 2011, as directed by EPA's 2011 Policy on Consultation and Coordination with Indian Tribes. Consultations with the tribe focused on the tribal role in the cleanup process at the General Motors (Central Foundry Division) site, as well as the Alcoa Aggregation and Reynolds Metals sites, which also affect the tribe.² EPA officials told us they have responded to tribal concerns, in part, by agreeing to a stricter treatment threshold for maximum allowable PCB contamination (10 parts per million instead of 500 parts per million), based on the tribe's objection to the originally-proposed plan. EPA officials also told us that they have responded to tribal concerns by adopting practices to mitigate air contamination during response activities, such as minimizing the size of excavation areas to reduce potential exposure and wetting contaminated soils before removal. EPA officials told us that coordination with the tribe began in the 1980s, and that the region coordinates extensively with the Saint Regis Mohawk Tribe. Additionally, these officials told us that, through annual meetings with tribes in the region and periodic visits to individual tribes, they coordinate with all tribes in the region, including the Saint Regis Mohawk Tribe, at least once a year. In technical comments provided in response to the draft of this report, EPA officials told us that the Saint Regis Mohawk Tribe has been treated as a support agency, equivalent to the state of New York, since 1995, and that the tribe has been asked to concur on all records of decision for the site as early as 1990, though they have not always concurred.

Perspectives of Tribal and EPA Officials on Consultation and Coordination for the Site

Tribal and EPA officials have differing perspectives on the effectiveness or utility of consultation. Saint Regis Mohawk Tribe officials noted that they have met repeatedly with EPA over the years but the consultation has felt perfunctory and like a "box checking exercise." Tribal officials stated that EPA did not consider their input as seriously as General Motors' input, and they believe that EPA is over-reliant on the initial research conducted by scientists from the company, and has not

²The Alcoa Aggregation and Reynolds Metal sites are not NPL sites.

sufficiently considered updated and independent research. Saint Regis Mohawk tribal officials noted that EPA did not recognize tribal members' stronger reliance on the environment and exposure to contamination. The tribe also provided us with examples of less formal coordination with EPA, including a letter from EPA responding to tribal officials' requests for additional air monitoring at the site.

EPA Region 2 officials stated that consultation with the Saint Regis Mohawk Tribe has become more extensive and sophisticated since the issuance of the 2011 tribal consultation policy. The region held a consultation with the tribe in 2011 to address coordination with the tribe about three Superfund sites. In a summary of that consultation, EPA noted that they will take steps to further the tribe's partnership role with respect to the three sites by providing as much time and opportunity as feasible for consultation, consistent with the mutual desire to move the cleanups forward expeditiously; continuing to share, for advance review, drafts of pertinent documents; consulting with the tribe prior to taking actions or implementing decisions that may affect the tribe's interests; inviting tribal officials to technical meetings where potentially responsible parties and other trustees are present; and informing the tribe of the results of meetings or substantive decisions with any potentially responsible party. Further, EPA officials noted that they cannot fulfill some requests made by the Saint Regis Mohawk Tribe; however, EPA officials stated that tribal activism led to a more stringent 10 parts-per-million treatment threshold for PCBs on the site, rather than the originally proposed 500 parts-per-million standard. EPA also provided documentation of less-formal coordination with the tribe, including correspondence regarding approaches to addressing the tribe's concerns of PCB air impacts during cleanup.

Case Study 3: Petoskey Manufacturing Company (PMC) Groundwater—EPA Region 5

General Information on the Site

According to information provided by EPA, the PMC Groundwater site is located in a former industrial area on the shores of Lake Michigan's Little Traverse Bay in Petoskey, Michigan. PMC was established in 1946 as a small fabricating and painting business that later produced parts for the automotive industry until 2000. During this period PMC improperly disposed of solvents used in plant operations, contaminating groundwater and Petoskey's municipal well with volatile organic compounds and inorganic contaminants.

Site Status in Cleanup Process

According to EPA officials, the agency has gone through several rounds of cleanups at PMC Groundwater. EPA initially listed the PMC Groundwater site on the NPL in 1983. The City of Petoskey completed construction of a new municipal water source in 1996. EPA began cleanup in 1999 and declared the site as ready for anticipated use in 2007; the site was subsequently redeveloped with condominiums. In the site's 2014 5-year review, EPA noted that the remedies they had put in place, including excavation and off-site disposal of contaminated soil, installation and operation of a system to remove volatile organic compounds from subsurface soil, and a groundwater monitoring plan, were protective of human health and the environment in the short term, but that an effective long-term remedy would require additional steps. According to EPA officials, EPA is conducting a remedial investigation and feasibility study to determine the nature and extent of soil and groundwater contamination, which is expected to be completed in 2019. According to EPA officials, in 2016, EPA fieldwork indicated that trichloroethene concentrations exceeded acceptable levels under some condominiums' slab foundations, and in 2017, EPA conducted an emergency removal action to address the intrusion of the vapors.

Tribal Interest in the Site

Little Traverse Bay Bands of Odawa Indians officials told us the tribe's interest in the site is due to potential exposure of tribal members and the effects on nearby surface waters. Tribal members rely on subsistence fishing in the Bear River in close proximity to the site. These officials also told us the tribe also conducts commercial fishing in Lake Michigan. Tribal members residing in Petoskey relied on the contaminated municipal well. Additionally, tribal officials told us that they want to understand the status of the site because they may be interested in future land acquisitions in the area and the U.S. Department of the Interior may not be willing to take contaminated land into trust for the tribe.

EPA's Consultation and Coordination with the Tribe for the Site

According to tribal officials, the tribe contacted EPA officials in 2017 when local news reported vapor intrusion issues into condominiums built on the site. Neither tribal officials nor EPA have found any indication of previous consultation or coordination for the site. Since the tribe's initial contact, EPA officials have shared relevant information and spoken with the tribe regarding the site. EPA officials told us that representatives from the tribe attended a public meeting about the site in June 2018 and that EPA is in close contact with an official from the tribe and will provide him with reports as appropriate.

Perspectives of Tribal and EPA Officials on Consultation and Coordination for the Site

According to EPA and tribal officials, EPA has not consulted with the tribe about the site. With respect to coordination, tribal officials told us that they were satisfied with EPA's response following the tribe's initial contact. EPA officials told us that the tribe is aware that consultation is available if the tribe desires it, and officials will coordinate with the tribe. EPA officials stated that the relationship with tribes in the region has evolved considerably since the 1990s and that coordination with tribes in the region has improved.

Figure 4: Proximity of Petoskey Manufacturing Company Groundwater Site to Tribal Fishing Resource



-  Extent of contaminated groundwater that exceeds federal drinking water standards
-  Approximate property boundary of the former Petoskey Manufacturing Company (PMC)
-  Distance marker represents distance between tribal resource (Bear River) and contamination

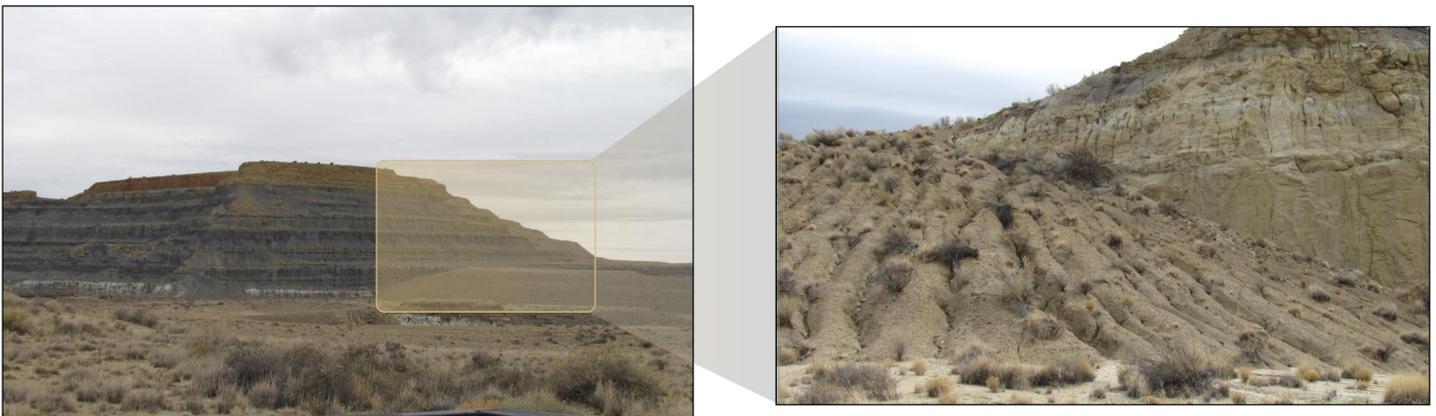
Source: GAO analysis of Environmental Protection Agency data. | GAO-19-123

Case Study 4: Jackpile-Paguate Uranium Mine—Region 6

General Information on the Site

According to information provided by EPA, the Jackpile-Paguate Uranium mine is a 2,656-acre site located on the Pueblo of Laguna, New Mexico, about 40 miles west of Albuquerque. Anaconda Copper Mining and The Anaconda Company, predecessors to the Atlantic Richfield Company, moved more than 400 million tons of rock within the mine between 1952 and 1982 area in addition to 25 million tons of uranium ore off-site for additional processing. Mining operations contaminated surface water with hazardous substances. Additionally, according to a report by the U.S. Department of Health and Human Services, people living in villages near the site could be exposed to contamination through radioactive materials from the site being used in home construction, or through contact with mine contaminants suspended in air or present in dust blown or tracked from the mine. Reclamation of the mine began in 1990 and was closed out in June 1995; however, EPA was not involved in the initial reclamation prior to the site being listed on the NPL. Figure 5 is a photograph of Gavalon Mesa, one of the major mining areas at the site, and erosion typical to a previously reclaimed area.

Figure 5: Erosion of Remediated Mountainsides at the Jackpile-Paguate Uranium Mine



Source: GAO. | GAO-19-123

Site Status in Cleanup Process

EPA listed the site on the NPL in 2013. EPA officials conducted four assessments at the site. The site is currently in its remedial investigation and feasibility study stage, and the site has not met any site-wide milestones.

Tribal Interest in the Site

The site is located within the boundaries of the Pueblo of Laguna's reservation. Pueblo of Laguna officials stated that the site impacted the Pueblo in several ways, including radon contamination in homes due to use of contaminated mining debris in home construction, contamination of water sources, and dust from mining operations reaching homes and gardens.

EPA's Consultation and Coordination with the Pueblo for the Site

EPA officials stated that neither EPA nor the Pueblo of Laguna have initiated consultation for the Jackpile-Paguate Uranium Mine under the 2011 consultation policy. EPA consulted with the tribe for the site in 2009, which resulted in a memorandum of understanding (MOU) to facilitate coordination in performing removals and site assessments for the site. According to EPA officials, once the remedial investigation and feasibility study is complete, they will seek to consult with the tribe before making a decision about cleanup goals. EPA officials noted that the agency has consistently coordinated with the tribe, including regular briefings to the tribe and working closely with the tribe's Environmental and Natural Resources Department since EPA became involved at the site. In addition, the tribe is a support agency for the site—which means EPA must provide the tribe substantial and meaningful involvement in the initiation, development, and selection of the remedial action at the site. The Pueblo has a Superfund support contract with EPA to facilitate its support agency work helping EPA perform oversight of the response work, and reviewing and commenting on EPA documents, according to EPA officials.

Perspectives of Pueblo and EPA Officials on Consultation and Coordination for the Site

Pueblo officials told us that they have been satisfied with the coordination for the site, and they prefer that coordination be face-to-face when possible. Officials told us that consultation requires a senior EPA official to present in person to the Pueblo Council, and all other interactions are considered coordination. According to the Pueblo, coordination with EPA has been effective, in part, because EPA acknowledges that site contamination extends beyond the mine lease boundaries.

EPA officials told us that they are in frequent communication with the Pueblo. EPA officials noted that they hold regular briefings with tribal officials, as well as through routine electronic and phone communication. EPA officials noted that coordination with the tribe early in the Superfund cleanup process facilitates their work. For example, since the site is on tribal property, EPA worked with the Pueblo to gain site access to investigate the extent of the contamination.

Case Study 5: Smurfit-Stone Mill Frenchtown— Region 8

General Information on the Site

According to information provided by EPA, the Smurfit Stone Mill-Frenchtown site is a 3,200-acre area located northwest of Missoula, Montana. The site was originally a pulp mill operated from 1957 through 2010. It includes more than 900 acres of unlined ponds that were used to store wastewater effluent from the mill, as well as sludge recovered from untreated wastewater. Contamination includes dioxins and furans produced through bleaching of pulp, as well as PCBs.

Site Status in Cleanup Process

EPA proposed to add the site to the NPL in 2013 and is evaluating public comments on the proposal before making a final decision. EPA negotiated an administrative settlement agreement and order on consent in 2015 with three potentially responsible parties to conduct a remedial investigation and feasibility study at the site. EPA officials told us that these parties have completed several site tasks contributing to the remedial investigation and feasibility study for the site.

Tribal Interest in the Site

Both the Confederated Salish and Kootenai Tribes of the Flathead Reservation and the Kalispel Indian Community of the Kalispel Reservation (hereafter Kalispel or Kalispel Indian Community) have interest in the site. Officials from the Confederated Salish and Kootenai Tribes of the Flathead Reservation stated that their interest in the site is drawn from the Hellgate Treaty of 1855. According to these officials, the site is located on land where the tribes retain treaty hunting, fishing, and gathering rights in portions of the Clark Fork River that are potentially contaminated by the site. The two tribes are concerned about adverse health impacts on tribal members due to exposure through consumption of fish from near and downstream from the site and ensuring that tribal cultural and historical resources are protected during cleanup activities. Officials from the Kalispel Indian Community believe that contaminants from the site and throughout the watershed have reached its reservation in Northeast Washington. These contaminants may affect tribal members'

nutrition and exercise of their culture. The tribe would like EPA to sample for contamination from Smurfit Stone Mill further down the Clark Fork River to the areas where the Kalispel have interest.

EPA's Consultation and Coordination with the Tribes for the Site

According to EPA officials, EPA has not consulted with the tribes but has coordinated with the natural resource trustees, which include the Confederated Salish and Kootenai Tribes, and told us they have also coordinated with the Kalispel Indian Community. EPA officials told us that coordination with the Kalispel Indian Community differs from coordination with the Confederated Salish and Kootenai Tribes because the Kalispel do not have treaty rights at the site. Region 8 notified the Confederated Salish and Kootenai Tribes about the site in 2014, but told us they did not send corresponding notification to the Kalispel Indian Community because they had not been identified as having tribal interest during the preliminary assessment and site investigation. EPA officials told us the reason they have not yet consulted with the tribes under the 2011 policy is that the site is still being characterized. According to officials from the Confederated Salish and Kootenai Tribes, they were first informed of the site by the Missoula County Water Quality district in 2012. Officials from this tribe told us that in December 2012, they sent a letter to the state Governor supporting NPL listing for the site, and also indicated their support of NPL listing to EPA when responding to a Federal Register notification indicating EPA's intent to add the site to the NPL. EPA officials told us that the agency wants to improve communication with the tribes by scheduling quarterly calls, site visits, and offering opportunities to review and comment on documents produced during the remedial investigation process.

Perspectives of Tribal and EPA Officials on Consultation and Coordination for the Site

Officials from the Confederated Salish and Kootenai Tribes have been dissatisfied with the extent of coordination with EPA. Specifically, they told us that EPA has not provided the tribes with sufficient information to engage in the cleanup process in a meaningful way. For example, officials stated EPA did not involve them when EPA entered into the administrative settlement agreement and order on consent to conduct the remedial investigation and feasibility study. Tribal officials told us that this

experience is inconsistent with other Superfund sites where EPA has given the tribes greater opportunity for meaningful input.

EPA officials told us they coordinated with the interested tribes through communications with the natural resources trustees in the region as a whole.³ EPA officials told us that they officially notified the tribes about the site after the preliminary assessment and site investigation, and that they typically do not issue a trustee notification letter or invite tribes to consult until after EPA completes a preliminary assessment. Officials told us that the Confederated Salish and Kootenai Tribes was notified at the same point as other natural resource trustees, and that this was sufficiently early to allow for meaningful input because it occurred prior to any major decisions.

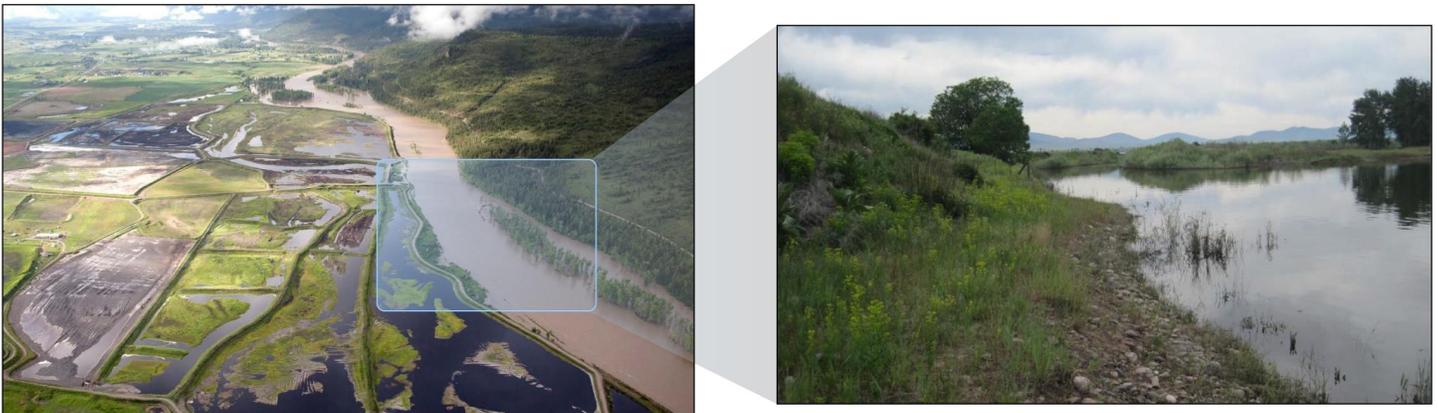
According to Kalispel tribal officials, coordination with EPA has been limited. Kalispel tribal officials told us that they have faced some difficulties coordinating with EPA about the site because they are located in EPA Region 10, while the site is managed by EPA Region 8. One tribal official we spoke with expressed that he felt EPA may be trying to exclude the Kalispel Indian Community from cleanup decisions at the site. For example, this official told us that the tribe had requested that EPA Region 8 extend their water sampling area further downstream on the Clark Fork River to determine the extent of releases from the site, but that EPA issued its sampling plan without taking the tribe's concerns into account. However, these officials told us that they are developing their relationship with EPA region 8. They also told us that coordination with EPA is valuable, and that they consider consultation as a tool to be employed when coordination is insufficient.

Region 8 officials acknowledged the letter from the natural resource trustees requesting a stronger role in decision-making and highlighted improvements EPA has made to communication. Further, officials cited several actions to demonstrate their commitment to working with the

³CERCLA requires the President to seek to coordinate assessments, investigations, and planning for response actions with natural resource trustees, which can include federal agencies, states, and tribes. Tribal natural resources may include resources on tribal trust, restricted, or fee lands as well as resources on lands held in trust or restricted status for tribal members and resources, such as water and hunting rights, the tribe exercises governmental control over. Trustees often have information and technical expertise about the biological effects of hazardous substances, the location of sensitive species and habitats and other information that can assist EPA in characterizing the nature and extent of site-related contamination and impacts.

tribes: evaluating the berms at the site, as the Confederated Salish and Kootenai Tribes requested; evaluating contamination's impact on tribal health through fish consumption patterns; and responding in writing to natural resource trustee letters. However, EPA considers the role of the Kalispel Indian Community in the cleanup to be different because that tribe does not have treaty rights within the site boundaries. EPA officials stated that they keep the tribe informed of meetings and invite them to site visits. Figure 6 shows the berms during a high-water event in 2011 and a portion of a berm indicated to be in poor condition by the work plan for the remedial investigation and feasibility study in 2017.

Figure 6: Images Showing Berms Along the Clark Fork River



Source: Gary Matson and NewFields. | GAO-19-123

Case Study 6: Midnite Mine—Region 10

General Information on the Site

The Midnite Mine site is a former open-pit uranium mine located in eastern Washington state on the Spokane Indian Reservation, near Wellpinit, Washington. According to information from EPA, Dawn Mining Company and Newmont USA Limited operated an open-pit uranium mine intermittently between 1955 and 1981. During mining operations, over 33 million tons of rock was blasted and excavated to access uranium ore. The waste was dumped in piles, used to fill mine pits, or spread on the surface. About 2.4 million tons of ore and near ore-grade rocks were also stockpiled at the mine in anticipation of later processing. The former mine site includes approximately 350 acres directly affected by mine operations, as well as affected groundwater, surface water, and sediment. Hazardous substances released at the site as a result of mining include numerous metals and radio-nuclides. Key contaminants of concern that EPA identified in the human health risk assessment for the site include uranium, radium, lead, and manganese.

Site Status in Cleanup Process

According to EPA, construction of the remedies is currently under way for the site. EPA listed the site on the NPL in 2000 and performed the remedial investigation and feasibility study from 1998 through 2006. In 2012, the potentially responsible parties and the United States agreed to a consent decree that required the potentially responsible parties to develop a design for and implement the remedial action at the site. No site-wide milestones have been met.

Tribal Interest in the Site

According to tribal officials, the Spokane Tribe of Indians is interested in the effect of contamination from the site on subsistence hunting and fishing, particularly elk and rainbow trout, respectively. Tribal officials stated that contamination from the mine flows into Blue Creek, which impacts the tribe's ability to conduct traditional practices such as sweat lodges. Tribal officials stated their ultimate goal would be for the site to be sufficiently clean for wildlife to safely live on the site, for fish to thrive in

water adjacent to the site, and for the tribe to resume its traditional hunting and gathering activities in the area.⁴

EPA's Consultation and Coordination with the Tribe for the Site

EPA consulted with the Spokane Tribe of Indians in June 2013 regarding a potential change to water treatment practices. Tribal officials stated the tribe is pleased that the new water treatment plant will operate year-round and will discharge treated water via a pipe into Lake Roosevelt, which is a larger body of water with less direct impact on the tribe's natural resources. In addition, tribal officials stated that EPA invited the tribe to consult at other times but the tribe did not think it was necessary.

Perspectives of Tribal and EPA Officials on Consultation and Coordination for the Site

Tribal officials told us that their coordination with EPA has resulted in more consideration of the natural resources and hopefully a fuller remediation of the site. For example, EPA applied the tribe's more stringent water quality standards to discharge from the site, which EPA supported by providing technical assistance to the tribe during the development and approval processes. Spokane tribal officials stated that during the Remedial Investigation and Feasibility Study phase, EPA's program manager offered to consult with the tribe at various points, which the tribe declined because the tribe felt they had sufficient interactions with EPA. The Superfund cleanup process has been a learning process for tribal officials but, overall, the tribe is pleased with the result and the open exchange of information with EPA.

Speaking generally, EPA officials noted that the 2011 consultation policy has had a positive effect on the frequency of consultation with tribes in the region. The policy has led Superfund remedial project managers to more routinely invite tribes to consult.

⁴The Confederated Tribes of the Colville Reservation is also included in EPA's data as having NAI for the Midnite Mine site; however, an official from the tribe told us that the tribe has had no direct involvement in the site. This official also told us that the tribe's primary point of interest has been the discharge of radioactive elements into the Columbia River via Blue Creek on the Spokane Indian Reservation, and that there are no significant concerns with the proposed discharge limits or site remediation activities.

Appendix IV: Comments from the Environmental Protection Agency



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 20 2018

Mr. Alfredo Gomez
Director
Natural Resources and Environment
U.S. Government Accountability Office
Washington, DC 20548

Dear Mr. Gomez:

Thank you for the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report, *EPA Should Improve the Reliability of Data on National Priorities List Sites Affecting Indian Tribes*. This letter provides the U.S. Environmental Protection Agency's (EPA) response to GAO's draft report findings, conclusions and recommendations. The draft report: (1) examines the extent to which EPA has reliable data identifying National Priorities List (NPL) sites that are located on tribal property or that affects tribes; (2) examines the extent to which EPA has reliable data on the agency's consultation with tribes regarding NPL sites; and (3) describes the actions EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at NPL sites.

The EPA appreciates the GAO's work on this subject area and your collegial working relationship and dialogue with our staff. EPA understands the need for complete and accurate data for tracking sites on tribal property, sites with Native American interest (NAI), and tracking consultations with tribes. EPA extensively coordinates and consults with tribes at Superfund sites across the country and better documentation of that work is in the interests of both EPA and tribes. The EPA generally agrees with the GAO's findings, conclusions, and recommendations and is providing technical comments we believe will improve the accuracy and clarity of the final report.

Below are EPA's comments on the GAO recommendations.

GAO Recommendation 1

The Director of EPA's Office of Superfund Remediation and Technology Innovation [OSRTI] should develop a regular review process to ensure the quality of SEMS [Superfund Enterprise Management System] data identifying sites on tribal property and revise automated reports used to check the accuracy of SEMS data to include on tribal property data.

EPA Response

EPA agrees with this recommendation. During the course of the GAO engagement, SEMS tribal data was reviewed for quality control and corrections were made to the existing data. OSRTI will create a schedule to review tribal data in SEMS.

To support fulfilling the first recommendation, OSRTI is planning the following action:

- Annual dissemination of SEMS tribal data to Superfund regional tribal coordinators for Quality Assurance/Quality Control review. (March 2019 and annually thereafter)

**Appendix IV: Comments from the
Environmental Protection Agency**

GAO Recommendation 2

The Assistant Administrator of EPA's Office of Land and Emergency Management [OLEM] should clarify guidance to regional offices on how to determine whether sites have NAI, including by adding criteria for when a site should be designated as having NAI in the SEMS database and how, if at all, to adjust SEMS data if a tribe is no longer interested in a site.

EPA Response

EPA generally agrees with this recommendation. The NAI indicator is part of the Superfund Program Implementation Manual (SPIM) (OLEM 9200.3-152). There are a variety of circumstances under which a tribe may have interest in a NPL site. OLEM/OSRTI will identify relevant criteria that may be used to support the NAI indicator in the SPIM.

To support fulfilling the second recommendation, OLEM/OSRTI is planning the following actions:

- OSRTI has created a headquarters/regional workgroup to review and update tribal data collected in SEMS.
- Workgroup will (no later than October 2019):
 - Provide guidance to clarify the NAI determination, including:
 - Identification of criteria for when a site should be designated as having NAI.
 - As needed, identify a process to update SEMS when a tribe is no longer interested in a site.

GAO Recommendation 3

The Director of EPA's Office of Superfund Remediation and Technology Innovation should clarify agency guidance regarding tribal consultation to clearly identify the circumstances under which the agency should consider consulting tribes.

EPA Response

EPA believes that this recommendation is intended to clarify guidance for consulting specifically on NPL sites rather than clarifying agency-wide guidance which would not be within OSRTI's purview. If this interpretation is consistent with the intent of GAO's recommendation, the Director of OSRTI will clarify circumstances under which Regions may consider tribal consultation for the Superfund program.

To support fulfilling the third recommendation, OSRTI is planning the following action:

- Issue a memo to the Regions that clarifies circumstances under which regions may consider tribal consultation for the Superfund program (no later than March 2020).

GAO Recommendation 4

The Assistant Administrator of EPA's Office of International and Tribal Affairs [OITA] should develop or revise existing guidance to clearly direct regional officials to document all invitations to consult with tribes in the TCOTS [Tribal Consultation Opportunities Tracking System] database and provide the guidance to those officials.

EPA Response

OITA agrees with the fourth recommendation. Overall, we see this GAO Report as an opportunity to engage the new leadership on the importance of consultation and to gain greater consistency and reliability on EPA's consultation efforts.

To support fulfilling the fourth recommendation, OITA is planning the following actions:

**Appendix IV: Comments from the
Environmental Protection Agency**

- Issue a memorandum from OITA's Assistant Administrator or OITA's Principle Deputy Assistant Administrator to EPA Regional Administrators on the importance of following EPA's Tribal Consultation and Coordination Policy and documenting consultation actions into TCOTS (January 2019).
- Begin to issue a monthly TCOTS report to Deputy Assistant Administrators/Regional Assistant Administrators on the status of consultations recorded in TCOTS (January 2019).
- Initiate OLEM and OITA-led trainings specifically targeted to EPA's Regional Superfund staff on when and how to document consultation actions into TCOTS (February-March 2019).
- Conduct OITA and Agency's designated Tribal Consultation Advisors-led training on tribal consultation topics, with a specific emphasis on entering consultation information into TCOTS (March - April 2019).

Thank you for the opportunity to review the draft report. We believe there is useful information in this report that will strengthen EPA's efforts to work with tribes within the Superfund program and we appreciate the opportunity to comment. EPA has enclosed technical comments on the draft report. If you have any questions or need additional information, please contact Christine Poore (OSRTI) at 703-603-9022, Amanda Van Epps (OSRTI) at 703-603-8855, or Dona Harris (AIEO) at 202-564-6633.

Sincerely,



Barry Breen
Acting Assistant Administrator
Office of Land and Emergency Management



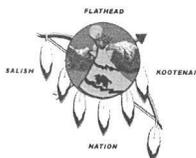
Jane Nishida
Principal Deputy Assistant Administrator
Office of International and Tribal Affairs

Enclosure

cc: James Woolford, OSRTI
Felicia Wright, AIEO
EPA GAO Liaison Team
EPA Superfund Regional Tribal Coordinators

Appendix V: Comments from the Confederated Salish and Kootenai Tribes of the Flathead Reservation

**Appendix V: Comments from the Confederated
Salish and Kootenai Tribes of the Flathead
Reservation**



A Confederation of the Salish,
Pend d' Oreille
and Kootenai Tribes

THE CONFEDERATED SALISH AND KOOTENAI TRIBES
OF THE FLATHEAD NATION
P.O. BOX 278
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A People of Vision

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James Steele Jr.
Carole Lankford
Dennis Clairmont
Charmel R. Gillin
Myrna L. DuMontier

December 13, 2018

Emily Norman
Senior Analyst, Natural Resources & Environment
U.S. Government Accountability Office – Atlanta Field Office

Re: Draft report GAO-19-123 (102047) – EPA Should Improve the Reliability of Data on National
Priorities List Sites Affecting Indian Tribes (December 2018)

Dear Ms. Norman,

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**Appendix V: Comments from the Confederated
Salish and Kootenai Tribes of the Flathead
Reservation**

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Again, thank you for the opportunity to participate in the GAO's study of Superfund sites affecting Tribes. Please do not hesitate to contact me or May Price, Legal Department Staff Scientist if we can be of further assistance

Sincerely,



Ronald Trahan, Chairman

Confederated Salish and Kootenai Tribes

² <https://cumulis.epa.gov/supercpad/cursites/csinfo.cfm?id=0800392>

Appendix VI: Comments from the Pueblo of Laguna

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December 13, 2018

BY ELECTRONIC MAIL

Mr. J. Alfredo Gómez
Director, Natural Resources and Environment
Government Accountability Office
441 G St. N.W.
Washington, DC 20548
gomezj@gao.gov

Dear Mr. Gómez:

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Page 2

Second, the measure of “tribal interest” in EPA’s databases must not be overly simplistic. In determining a tribe’s interest, it is important that EPA contact potentially interested tribes throughout the life of an NPL listing even if a tribe at some single point states it has no interest. Information developed during the process, for example during the RI/FS stage, regarding the scope or type of contamination may highlight a tribal interest that was not apparent at an earlier stage. New tribal land acquisitions, new tribal leadership, evolving tribal expertise, and other intervening changes may also affect a tribe’s objective interest and/or its assessment of its interest in a site. Especially given the long lifespan of many NPL listings, continual inquiry from EPA to tribes is important.

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Comments Specific to the Pueblo of Laguna

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The Jackpile-Paguate Mine is Case Study 4 in the draft report. We propose a number of revisions to the draft text in the attached markup. The most significant, on page 69, seeks to replace language that is incorrect. To illustrate, while BIA and BLM prepared the EIS, EPA did participate. For example, EPA did radon surveys in 1976. EIS at 2-37. Atlantic Richfield did not pay the Pueblo, it paid the United States, which then paid the Pueblo (and ultimately Laguna Construction Co.) through contractual arrangements. Especially because the matter is still in litigation, we would prefer to minimize the characterization of facts. Simpler is better in this context.

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Conclusion

Again, thank you for your and your colleagues' efforts in preparing the draft. Please contact me with any questions or concerns. The Pueblo of Laguna wishes you and your families happy holidays.

Sincerely,

PUEBLO OF LAGUNA



Virgil Siow
Governor

Enclosures:

1. Marked-up version of GAO Draft

Appendix VII: GAO Contact and Staff Acknowledgements

GAO Contact

J. Alfredo Gómez, (202) 512-3841 or gomezj@gao.gov

Staff acknowledgements

In addition to the individual named above, Barbara Patterson (Assistant Director), Emily Norman (Analyst-in-Charge), Matthew Bond, John Delicath, Justin Fisher, Andrew Furillo, Jeanette Soares, Ruth Solomon, Sara Sullivan, and Kiki Theodoropoulos made significant contributions to this report.

Appendix VIII: Accessible Data

Data Tables

Accessible Data for Figure 1: Phases in the Superfund Cleanup Process When the Environmental Protection Agency Should Document Consultation with Tribes

1. Preliminary Assessment
2. National Priorities List Site Listing Process
3. Remedial Investigation
4. Record of Decision - on-Time Critical Removal Action
5. Remedial Design / Remedial Action
6. Construction Completion
7. Post Construction Completion
8. NPL Deletion
9. Site Reuse / Redevelopment

Accessible Data for Figure 2: Overview of the Six NPL Case Studies

- Case Study 1 = Creese and Cook;
- Case Study 2 = GM Central Foundry;
- Case Study 3 =PMC Groundwater;
- Case Study 4 = Jackpile Paguante;
- Case Study 5 = Smurfit Stone;
- Case Study 6 = Midnite Mine

Agency Comment Letters

Accessible Text for Appendix IV: Comments from the Environmental Protection Agency

Page 1

DEC 20 2018

Mr. Alfredo Gomez Director

Natural Resources and Environment

U.S. Government Accountability Office

Washington, DC 20548

Dear Mr. Gomez:

Thank you for the opportunity to review and comment on the U.S. Government Accountability Office's (GAO) draft report, EPA Should Improve the Reliability of Data on National Priorities List Sites Affecting Indian Tribes. This letter provides the U.S. Environmental Protection Agency's (EPA) response to GAO's draft report findings, conclusions and recommendations. The draft report: (1) examines the extent to which EPA has reliable data identifying National Priorities List (NPL) sites that are located on tribal property or that affects tribes; (2) examines the extent to which EPA has reliable data on the agency's consultation with tribes regarding NPL sites; and (3) describes the actions EPA has taken to address the unique needs of tribes when making decisions about cleanup actions at NPL sites.

The EPA appreciates the GAO's work on this subject area and your collegial working relationship and dialogue with our staff. EPA understands the need for complete and accurate data for tracking sites on tribal property, sites with Native American interest (NAI), and tracking consultations with tribes. EPA extensively coordinates and consults with tribes at Superfund sites across the country and better documentation of that work is in the interests of both EPA and tribes. The EPA generally agrees with the GAO's findings, conclusions, and recommendations and

is providing technical comments we believe will improve the accuracy and clarity of the final report.

Below are EPA's comments on the GAO recommendations.

GAO Recommendation 1

The Director of EPA's Office of Superfund Remediation and Technology Innovation [OSRTI] should develop a regular review process to ensure the quality of SEMS [Superfund Enterprise Management System] data identifying sites on tribal property and revise automated reports used to check the accuracy of SEMS data to include on tribal property data.

EPA Response

EPA agrees with this recommendation. During the course of the GAO engagement, SEMS tribal data was reviewed for quality control and corrections were made to the existing data. OSRTI will create a schedule to review tribal data in SEMS.

To support fulfilling the first recommendation, OSRTI is planning the following action:

- Annual dissemination of SEMS tribal data to Superfund regional tribal coordinators for Quality Assurance/Quality Control review. (March 2019 and annually thereafter)

Page 2

GAO Recommendation 2

The Assistant Administrator of EPA's Office of Land and Emergency Management [OLEM] should clarify guidance to regional offices on how to determine whether sites have NAI, including by adding criteria for when a site should be designated as having NAI in the SEMS database and how, if at all, to adjust SEMS data if a tribe is no longer interested in a site.

EPA Response

EPA generally agrees with this recommendation. The NAI indicator is part of the Superfund Program Implementation Manual (SPIM) (OLEM 9200.3-152). There are a variety of circumstances under which a tribe may have

interest in a NPL site. OLEM/OSRTI will identify relevant criteria that may be used to support the NAI indicator in the SPIM.

To support fulfilling the second recommendation, OLEM/OSRTI is planning the following actions:

- OSRTI has created a headquarters/regional workgroup to review and update tribal data collected in SEMS.
- Workgroup will (no later than October 2019):
 - Provide guidance to clarify the NAI determination, including:
 - Identification of criteria for when a site should be designated as having NAI.
 - As needed, identify a process to update SEMS when a tribe is no longer interested in a site.

GAO Recommendation 3

The Director of EPA's Office of Superfund Remediation and Technology Innovation should clarify agency guidance regarding tribal consultation to clearly identify the circumstances under which the agency should consider consulting tribes.

EPA Response

EPA believes that this recommendation is intended to clarify guidance for consulting specifically on NPL sites rather than clarifying agency-wide guidance which would not be within OSRTI's purview. If this interpretation is consistent with the intent of GAO's recommendation, the Director of OSRTI will clarify circumstances under which Regions may consider tribal consultation for the Superfund program.

To support fulfilling the third recommendation, OSRTI is planning the following action:

- Issue a memo to the Regions that clarifies circumstances under which regions may consider tribal consultation for the Superfund program (no later than March 2020).

GAO Recommendation 4

The Assistant Administrator of EPA's Office of International and Tribal Affairs [OITA] should develop or revise existing guidance to clearly direct regional officials to document all invitations to consult with tribes in the TCOTS [Tribal Consultation Opportunities Tracking System] database and provide the guidance to those officials.

EPA Response

OITA agrees with the fourth recommendation. Overall, we see this GAO Report as an opportunity to engage the new leadership on the importance of consultation and to gain greater consistency and reliability on EPA's consultation efforts.

To support fulfilling the fourth recommendation, OITA is planning the following actions:

Page 3

- Issue a memorandum from OITA's Assistant Administrator or OITA's Principle Deputy Assistant Administrator to EPA Regional Administrators on the importance of following EPA's Tribal Consultation and Coordination Policy and documenting consultation actions into TCOTS (January 2019).
- Begin to issue a monthly TCOTS report to Deputy Assistant Administrators/Regional Assistant Administrators on the status of consultations recorded in TCOTS (January 2019).
- Initiate OLEM and OITA-led trainings specifically targeted to EPA's Regional Superfund staff on when and how to document consultation actions into TCOTS (February-March 2019).
- Conduct OITA and Agency's designated Tribal Consultation Advisors-led training on tribal consultation topics, with a specific emphasis on entering consultation information into TCOTS (March - April 2019).

Thank you for the opportunity to review the draft report. We believe there is useful information in this report that will strengthen EPA's efforts to work with tribes within the Superfund program and we appreciate the opportunity to comment. EPA has enclosed technical comments on the draft report. If you have any questions or need additional information, please contact Christine Poore (OSRTI) at 703-603- 9022, Amanda Van Epps (OSRTI) at 703-603-8855, or Dona Harris (AIEO) at 202-564-6633.

Sincerely,

Barry Breen

Acting Assistant Administrator

Office of Land and Emergency Management

Jane Nishida

Principal Deputy Assistant Administrator

Office of International and Tribal Affairs

Enclosure

cc: James Woolford, OSRTI

Felicia Wright, AIEO

EPA GAO Liaison Team

EPA Superfund Regional Tribal Coordinators

Accessible Text for Appendix V: Comments from the
Confederated Salish and Kootenai Tribes of the Flathead
Reservation

Page 1

December 13, 2018

Emily Norman

Senior Analyst, Natural Resources & Environment

U.S. Government Accountability Office -Atlanta Field Office

Re: Draft report GAO-19-123 (102047) — EPA Should Improve the
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Government Accountability Office

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Virgil Siow

Governor

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