



7 Stakeholder and Tribal Perspectives

This section provides guidance to regulators, technology vendors, and responsible parties on identifying and engaging with public and tribal stakeholders. This section also provides guidance to public and tribal stakeholders on the use of ASCT in the evaluation, monitoring, and remediation of contaminated sites; outlines some potential issues, needs, and concerns that stakeholders may have; and supplies examples of how stakeholders can engage in and improve upon site characterization.

Public and tribal stakeholders include affected tribes, community members, representatives of environmental and community advocacy groups, and local governments. Stakeholders are generally open to using innovative technologies and approaches, particularly if the technologies help improve CSMs, accelerate the remediation process, test the effectiveness of a remediation process, and lead to faster solutions. Affected stakeholders are not limited only to residents adjacent to a site. Residents located downgradient of a site, for example, may be affected. Tribes also may have treaties or other pacts with the federal government that grant them fishing, hunting, or access rights in areas that are not necessarily near present-day reservations; this issue is an especially important consideration in the identification of affected tribes. Additionally, at some sites, tribes have regulatory oversight and, thus, play a major regulatory role that is different from that of other stakeholders.

Individual states and Native American communities recognize certain tribes that are not recognized by the federal government. A list of federally recognized tribes, by state, may be obtained from the National Conference of State Legislatures (NCSL) (NCSL 2019). For state-recognized tribes, refer to the individual states. Current lists of state-recognized tribes may be incomplete. One such list is available from NCSL (NCSL 2019). Another is a list of nonfederally recognized tribes (Giese 1997).

Peoples whose lifestyles are not anticipated in the thinking of the majority culture nor accounted for in standardized risk assessments may be disproportionately affected by environmental contamination. In Native American communities, those who practice subsistence fishing may be more affected than the general population by contaminants in water. Those who practice the sweat lodge ritual may perhaps be disproportionately affected by inhalation of contaminants in water. It is important to make remedial decisions informed by the actual practices of the people who are potentially impacted as opposed to attributing majority culture practices upon such communities.

Tribes are sovereign nations and should be approached as such, with the proper protocol. Each tribe has its own customs and protocols, and it is important to learn about them in advance. General protocol requires that tribal leaders be addressed with their appropriate title (such as Chairman, Chairwoman, Chief, Councilman, Councilwoman) and treated with the same respect afforded for equivalent heads of state or members of the federal legislature.

Public and tribal stakeholders should be approached early and often in the site characterization process. They often have valuable information about site characteristics and history that can enhance the evaluation process and improve the CSM, leading to better-quality remediation decisions. Public and tribal stakeholders should be asked about their aspirations for future use of land and resources and whether they have specific desires about reclamation and property redevelopment. If mutual trust and respect have been established through open and honest communication from the beginning of the project, consensus can be reached in favor of a scientifically meritorious solution. Problems can be addressed faster, and remediation efforts can proceed more smoothly and efficiently when decisions have earned the support of the stakeholders.

While stakeholders are generally open to innovative technologies, the lack of existing agency guidelines for ASCTs in some states may be a source of apprehension or suspicion. It is important to present the facts about the efficacy of ASCT methods as clearly and honestly as possible. Explanations for how ASCT methods work should be offered.

At sites where remediation objectives have not been achieved, stakeholders may have lost trust in technical professionals and therefore be skeptical of new technologies proposed. Particularly at these sites it is important to show evidence of the effectiveness – and limitations – of ASCT methods. Honest communication, with evidence presented in understandable forms, is essential to achieve stakeholder agreement.

An example of how stakeholders contribute to the site characterization process is summarized below.

Example - How the Great Falls Citizens Association Helped Characterize a MTBE Site

Great Falls is an unincorporated city in Northern Virginia. The website of the Great Falls Citizens Association (GFCA) (GFCA 2019) states: "Since Great Falls is not legally a city, we lack a town government to represent our local interests. GFCA acts in an unofficial capacity to represent the voices of the citizens of Great Falls." The population of Great Falls is generally well educated and includes former USEPA employees. Most homes in Great Falls have private wells.

About five years ago, concern arose about MTBE contamination in the aquifer from a closed gas station. The plan for the site was to install monitoring wells to the southeast. GFCA members believed that a fracture zone was present to the south near a subdivision and posed a risk to private wells. GFCA members recruited three outside experts to evaluate the site free of charge and eventually convinced the state agency to address their concerns.

ASCTs, specifically surficial geophysical methods including seismic refraction, ER, and MASW, were used to guide placement of the monitoring wells. Results confirmed the suspicions of the GFCA members— a fracture zone was present to the south. Monitoring wells were installed in the areas of the vadose zone and fractured rock. As suspected, high levels of MTBE were found. Remediation in the form of pump and treat has been ongoing for about four years.

The engineers of the responsible party held several meetings with GFCA members, sometimes with about 100 citizens in attendance. Citizens were accepting of the ASCTs and use of the ASCTs enabled their assertions to be confirmed and their concerns to be addressed.

After four years of pumping and treating the groundwater, MTBE concentrations have gradually reduced to below the end points set by the state agency. GFCA members continue to monitor results of postcleanup monitoring.

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