

# Environmental Remediation on Native Lands

- EXPERIENCE
- INTEGRITY
- SERVICE

## Water Treatment Plant Impacts Cultural Property



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ENGINEERING • HYDROGEOLOGY

Environmental investigations and remediation on Native lands requires a unique set of qualifications: environmental experts who understand how to navigate the complexity of environmental regulation and jurisdiction, consider cultural sensitivities and mitigate adverse impacts to cultural values and environmental resources, maintain stakeholder engagement, and promote environmental justice.

A Native American tribe retained Hargis as its technical consultant in a litigation support capacity after a utility constructed a groundwater remediation facility. The litigation alleged that the facility adversely impacted a sacred area.

### Background

In the early years of utility operation, a chemical biocide had been used in the plant's cooling tower waters. The cooling water blowdown was discharged to a nearby wash. As a result of this discharge, groundwater in the underlying aquifer was contaminated with the biocide. Recognition of the potential for impacted groundwater to enter a nearby river prompted the regulatory agency, under its Resource Conservation and Recovery Act (RCRA) authority, to require the utility to enact interim measures to control the plume.

Accordingly, the utility constructed a groundwater extraction and treatment (GET) system comprised



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of extraction wells to maintain a landward groundwater gradient away from the river and an onsite treatment plant to treat contaminated groundwater.

### Native Lands Impacted

Normally, such a remedial measure would be considered a positive environmental measure. However, at this site, construction and operation of the treatment plant and the associated actions adversely affected traditional cultural property sacred to the tribe and defaced a portion of a sacred religious ground.

### Project Scope

Hargis assisted the tribe in its review of the myriad of state and federal regulatory documents issued

### KEY ACCOMPLISHMENTS

- Successful stakeholder engagement through consultative and technical working groups
- Construction engineering and hydrogeological on-site monitoring
- RCRA Facility Investigation, CERCLA Remedial Investigation, RCRA Corrective Measures Study, CERCLA Feasibility Study, Human Health and Ecological Risk Assessment
- Liaison between government agencies, public utility, and the tribe to achieve balance of regulatory compliance, sensitivity to culturally sacred lands, and protection of human health and the environment.

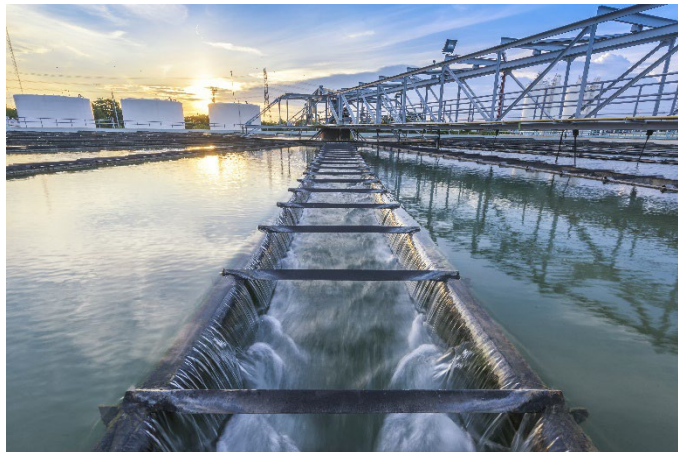
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for the project and the contamination of both groundwater and soils.

At each stage, Hargis' responsibility was to perform a technical review of these documents; attend consultative and technical meetings of tribes and stakeholders; assess the information on the project developments and schedules; conduct construction engineering and hydrogeological on-site monitoring; and make presentations back to the tribal council and members.

In addition to the RCRA process, the U.S. Department of the Interior's (DOI) ownership of adjacent lands necessitated Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) involvement and oversight.

Accordingly, Hargis has supported the tribe via technical review of documents related to the concurrent RCRA Facility Investigation and CERCLA Remedial Investigation, the RCRA Corrective Measures Study and CERCLA Feasibility Study, Human Health and Ecological Risk Assessment, and other related groundwater and soil contamination studies. This support has included preparing various presentations for the tribe, including cultural orientation seminars provided to the utility and its remediation contractors.

## Project Status

A groundwater remediation system involving in situ reduction has been constructed and is in a start-up phase. Remediation of contaminated soil is planned by the utility and is currently in the design phase.

Hargis acts as a liaison between government agencies, the public utility, and the tribe to achieve a balance of regulatory compliance, sensitivity to culturally sacred lands, and protection of human health and the environment.

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