

## SIN 899-8 – Remediation Services

- ***Preparation, Characterization, Field Investigation, Conservation, and Site Closures***
- ***Long-Term Monitoring/Long-Term Operation***
- ***Containment, Monitoring, and/or Reduction of Hazardous Waste Sites***
- ***Excavation, Removal, Transportation, Storage, Treatment, and/or Disposal of Hazardous Waste***
- ***UST/AST Removal***
- ***Wetland Restoration***
- ***Air Monitoring***
- ***Emergency Response***
- ***Soil Vapor Extraction, Stabilization/Solidification, Bio-Venting, Carbon Absorption, and Reactive Walls and Containment***



## Remediation Services

MCS engineers and scientists have conducted many environmental restorations under regulations such as the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Superfund Amendments and Reauthorization Act (SARA). We are experienced in the containment, removal, transportation, and disposal of contaminants that may include hazardous, toxic, radioactive, and petroleum-based substances. MCS has the ability to deal with these contaminants in soils, sediments, liquids, air, groundwater, surface water, and structures.

### ***Preparation, Characterization, Field Investigation, Conservation, and Site Closures***

MCS provides oversight and coordination of excavation, removal, transportation, storage, treatment and/or disposal of hazardous waste for CERCLA removal actions, underground storage tank (UST) programs, and RCRA interim measures and closures. MCS has designed, constructed, and installed many remediation systems.

### ***Long-Term Monitoring/Long-Term Operation***

We also provide operation and maintenance (O&M) services for long-term remedial sites, prepare the O&M manuals, and train personnel in maintenance of long-term monitoring.

### ***Excavation, Removal, Transportation, Storage, Treatment, and/or Disposal of Hazardous Waste***

For many years MCS has assisted clients with waste treatment issues. We are skilled in securing the proper agency permits, coordinating waste transportation and storage, and providing and overseeing disposal of hazardous waste.

### ***UST/AST Removal***

UST and above-ground storage tank (AST) systems are the most common sources of soil and groundwater contamination. MCS is experienced in government regulations for USTs/ASTs and in the development of storage tank management programs, as well as preparation and execution of tank closures and removals.

### ***Wetland Restoration***

An important aspect of our clients' construction and/or remediation activity is the protection and restoration of valuable

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wetlands. MCS personnel specialize in providing plans and specifications for habitat restoration and are acquainted with all permit regulations.

### ***Air Monitoring***

MCS has conducted comprehensive asbestos surveys and lead-based paint surveys in a variety of locations. We also provide on-site abatement monitoring for renovation and demolition.



### ***Emergency Response***

MCS offers 24-hour emergency spill response services. We quickly analyze and control the response effort to minimize exposure to the environment.

### ***Soil Vapor Extraction, Stabilization/Solidification, Bio-Venting, Carbon Absorption, and/or Reactive Walls and Containment***

MCS scientists and engineers have designed, prepared, and applied groundwater extractions, water and wastewater treatments, vapor extraction, soil and groundwater air sparging, vapor emission abatement, and landfill siting and closures.



## **Projects**

### ***Stevensville/Darby Hazardous Materials Storage Facilities and Soils Remediation, Bitterroot National Forest, US Forest Service***

MCS designed and installed five hazardous materials (HAZMAT) storage and dispensing facilities, replacing outdated buildings which failed to meet current regulations. All five HAZMAT facilities were completed within the required 90 days.

To bring the Darby Ranger Site into full compliance with current Forest Service HAZMAT regulations, MCS

- performed a remedial investigation and risk assessment of suspected diesel-impacted soils;
- developed a soil removal and disposal plan;
- performed the soil removal while providing regulated-waste manifesting; and
- oversaw a subcontractor for the hauling and disposal of the waste at a permitted facility prior to demolition of the existing HAZMAT storage building.



*Remedial Investigation and Risk Assessment*

*Identified PCBs and Petroleum Compounds*

*Removed and Disposed of Waste*

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The investigation identified pentachlorophenol (PCB) and petroleum compounds in the soils. The risk assessment determined that PCBs and petroleum compounds in surface soil would not migrate to groundwater.

### **Phase 1 Remedial Action, Tongue Point Landfill Site, US Army Corps of Engineers**

The Phase 1 remediation site of the Tongue Point Landfill in Astoria, Oregon is approximately 5 acres, borders the Columbia River and Mill Creek, and was used as the dumping location for construction debris, waste petroleum, woody debris, and miscellaneous material. MCS constructed the Phase 1 components—from site clearing to placement/movement of surcharge soil piles—to measure the landfill compressibility. We installed silt fence and other erosion control systems; cleared the site; abandoned or protected groundwater monitoring wells; set up the project staging areas; installed new water, phone, and electrical service; removed metal debris and an abandoned 5,000-gallon fuel tank; erected a concrete-foundation compressor building; installed new roads; imported 12,000 cy of fill to be used as surcharge, and installed a light nonaqueous-phase liquid (LNAPL) recovery system. LNAPL was recovered using top-loading pumps driven by an air compressor. The recovered LNAPL was contained in two 1,100-gallon stainless steel tanks and disposed of as Toxic Substances Control Act waste because of its high PCB content. MCS maintains the LNAPL recovery system and performs regular inspections of the site.



#### *Phase I Remediation*

*Installed a LNAPL Recovery System*

*Cleared the Site of Waste Material and Wood Debris*

*Long-Term Maintenance and Inspection of the Site*



#### *UST Removal*

*Soil/Groundwater Contamination Testing*

*Removal and Treatment of Hydrocarbon-Contaminated Soil*

### **Del Bonita Underground Storage Tank Removal, US Army Corps of Engineers**

This project involved the remedial assessment of 37 USTs to determine potential soil/groundwater contamination; permitting, pumping, and disposal of approximately 10,000 gallons of product (bunker C); disposal of approximately 10,000 gallons of hydrocarbon-contaminated water; removal of 37 USTs—the largest being 25,000 gallons in size; removal and land-treatment of 5,800 cy of hydrocarbon-contaminated soil; and generation of the final project report. To successfully complete the project, extensive coordination and communication was required between MCS and the involved parties, including the US Army Corps of Engineers, the Blackfoot Indian Nation, the State of Montana Department of Environmental Quality, the US Environmental Protection Agency, and county agencies.