

## HAZARDOUS MATERIAL SITE ASSESSMENT PROCESS

### 1. Purpose

This work instruction describes the process for ensuring that potential involvement of proposed MDT highway projects with hazardous material/substance sites is identified and assessed early in project development. This process also ensures that appropriate measures for avoidance and/or minimization of involvement and cleanup and/or monitoring of sites that cannot be avoided, are coordinated with appropriate regulatory agencies, incorporated in project plan documents and implemented prior to or during project construction.

### 2. Scope

The MDT hazardous material site assessment process is administered by the Solid/Hazardous Waste Specialists (S/HWS) within the MDT Environmental Services Bureau (ESB). As necessary, the S/HWS coordinates with Term Consultants, the MDT Geotechnical Section Core Drilling Staff and appropriate regulatory agencies. The hazardous material site assessment process begins with the Preliminary Field Review (PFR) and ends either with the determination that the project does not involve contaminated sites or that cleanup goals have been met for contaminated sites involved with the project.

### 3. Process

[Figure 1](#) presents a flowchart that illustrates the MDT hazardous material site assessment process. Following the Figure is a description of each process task included within the flowchart.

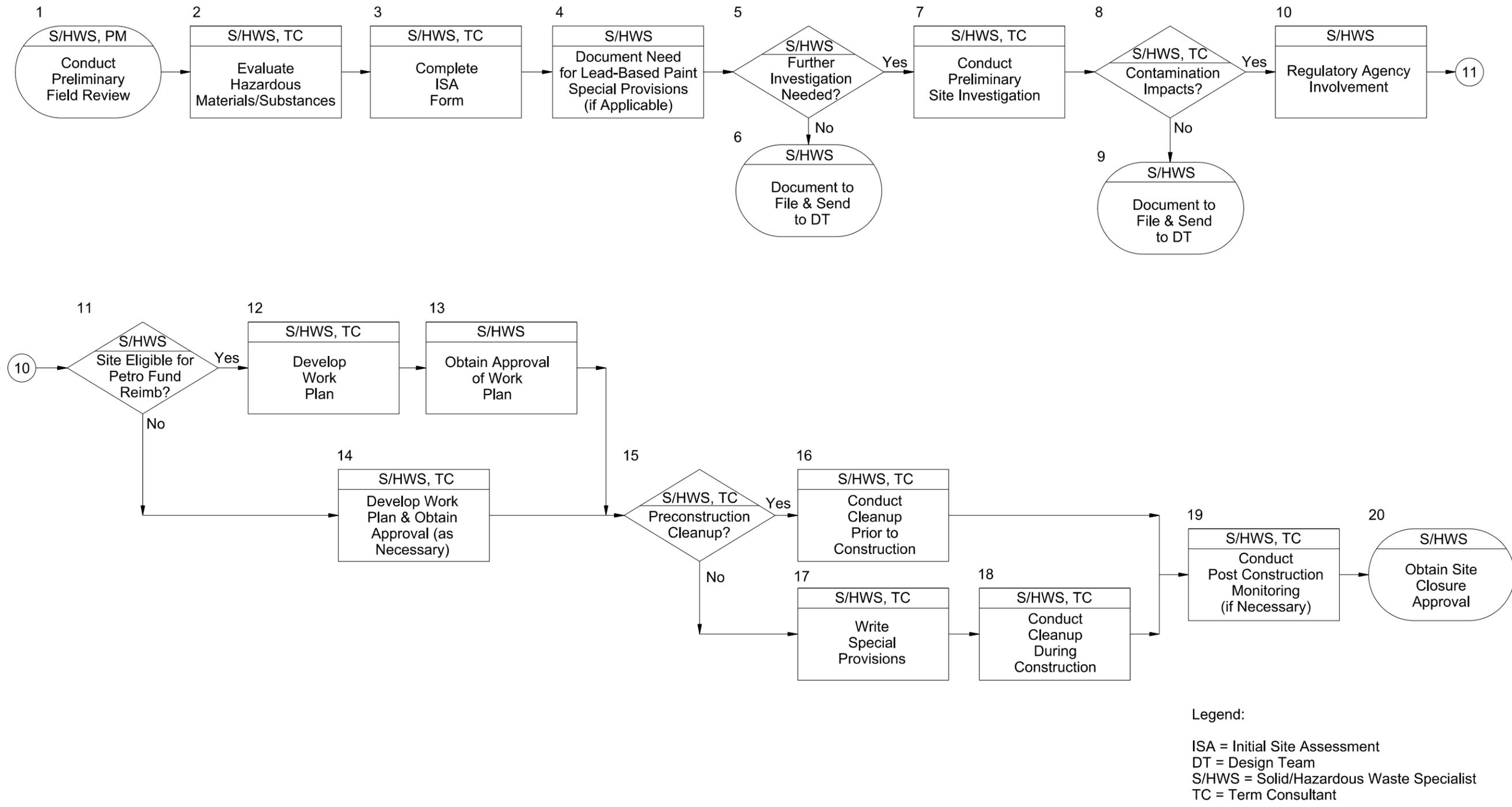


Figure 1 — HAZARDOUS MATERIAL SITE ASSESSMENT PROCESS

## PROCESS TASK

Task Title: Conduct Preliminary Field Review

Task No.: 1

### Task Description

The PFR is the initial step that begins the hazardous material site assessment process for a proposed project. The PFR includes preliminary evaluation of the scope of work and the potential for social, economic, and environmental impacts. The Design Team (DT) ensures that appropriate MDT personnel are notified of the field review and invited to participate.

The S/HWS participates in the PFR, as necessary, to make a preliminary evaluation of available information on the project scope and the potential for involvement with hazardous material sites or contamination associated with the project location.

Following the field review, the DT prepares a PFR Report summarizing the issues discussed during the PFR, including hazardous materials issues. The DT distributes the final PFR Report for review and comment. Within ESB, the Project Development Engineer (PDE) serves as the document champion to collect and coordinate comments from the other sections. The PDE compiles the comments into a PFR review memorandum for signature by the Environmental Services Bureau Chief.

### Regulations and Guidance

*MDT Road Design Manual*, Chapter One, "Road Design Process"

## PROCESS TASK

Task Title: Evaluate Hazardous Materials/Substances

Task No.: 2

### Task Description

After the project is programmed into OPX2, the S/HWS evaluates the project scope and location for potential involvement with hazardous materials/substances. The evaluation generally includes the following:

- in-house review of preliminary plans (if available), historic as-built plans, TIS image viewer, historic and current aerial photos and on-site review (if warranted);
- review of historic land uses, Sanborn maps, State and Federal Superfund site list, Montana Natural Resource Information System (NRIS) data, Montana Department of Environmental Quality (DEQ) Underground Tank Program files and other relevant databases; and
- consultation with appropriate environmental regulatory and local agencies to determine if hazardous materials/substances or groundwater quality issues could potentially impact the project.

### Regulations and Guidance

40 CFR 312 "Innocent landowners, standards for conducting all appropriate inquiry"  
ASTM Standard E1527-05 "Standard Practice for Environmental Site Assessments: Phase I  
Environmental Site Assessment Process"

## PROCESS TASK

Task Title: Complete ISA Form

Task No.: 3

### Task Description

The S/HWS, a Term Consultant (TC) tasked by the S/HWS, or the consultant for a Consultant Design project, documents the results of the initial evaluations for hazardous materials/substances, air quality and noise for the proposed project on the MDT Initial Site Assessment (ISA) Form and attaches appropriate supporting information, as applicable.

The Conclusions section of the ISA Form indicates whether further evaluation is needed for hazardous materials, air quality or noise.

For the hazardous material site assessment process, the S/HWS proceeds to [Task 4](#).

For air quality and noise, the S/HWS addresses further analyses and decisions, as needed, in processes that are separate from the hazardous material site assessment process.

**PROCESS TASK**

Task Title: Document Need for Lead-Based Paint Special Provisions  
(If Applicable)

Task No.: 4

Task Description

If the ISA determines the proposed project will involve disturbance of lead-based paint (e.g., on highway structures), the S/HWS documents in the project file the need for preparing Special Provisions ([Task 17](#)) for inclusion in project plans to ensure measures are implemented for worker safety and appropriate containment, collection and disposal of lead-based paint dust and/or debris. The S/HWS proceeds to [Task 5](#) and does not need to take further action to address lead-based paint issues until [Task 17](#).

If lead-based paint is not involved, the S/HWS proceeds to [Task 5](#).

**PROCESS TASK**

Task Title: Further Investigation Needed?

Task No.: 5

Task Description

The S/HWS evaluates the results of the ISA to determine if further investigation of hazardous materials/substances and/or groundwater contamination is needed (e.g., to determine the extent of contamination and the potential for impacting the project).

If further investigation is not needed, the S/HWS proceeds to [Task 6](#).

If further investigation is warranted, the S/HWS proceeds to [Task 7](#).

**PROCESS TASK**

Task Title: Document to File and Send to DT

Task No.: 6

Task Description

The S/HWS documents for the project file the basis for determining further investigation of hazardous materials/substances and groundwater contamination sites is not needed and provides a copy of the documentation to the DT.

## PROCESS TASK

Task Title: Conduct Preliminary Site Investigation

Task No.: 7

### Task Description

The S/HWS, or a TC tasked by the S/HWS, accomplishes any needed further evaluation of hazardous materials/substances and groundwater contamination sites through a Preliminary Site Investigation (PSI). The PSI typically includes the following actions:

- Perform additional research on historic land use to fill in any gaps in the information obtained in the ISA.
- Coordinate with the Core Drilling Staff in the MDT Geotechnical Section or a TC to conduct subsurface investigation delineating the extent and magnitude of soil and groundwater contamination in the right-of-way along the project corridor. Limit investigation to depths and locations likely to be impacted by construction activities. If necessary, install additional monitoring wells. Monitor groundwater wells for water level and water quality information to determine monthly or seasonal groundwater fluctuations. Report new releases to DEQ and affected landowners and businesses, as necessary.
- Determine eligibility of sites in project corridor for Montana Petroleum Tank Release Compensation Fund (Petro Fund) reimbursement.
- Coordinate with DT to minimize or avoid impacts, to add information on project plans and to estimate quantities. Coordinate with municipalities who may be designing utilities and storm drains in conjunction with the MDT project. Complete any needed agreements for cost-sharing and assignment of responsibilities with local governments.
- Prepare PSI report to document all available information on contamination, water quality and levels, mitigation recommendations, responsible parties, draft Special Provisions and treatment/disposal options, and recommendations for further work (e.g., a Detailed Site Investigation (DSI)).
- Inform interested parties (e.g., local municipality, MDT District Preconstruction Engineer, District Construction Engineer, Right-of-Way Bureau, DT) of the project findings.

**PROCESS TASK**

Task Title: Contamination Impacts?

Task No.: 8

Task Description

Using the results of the PSI and DSI, if applicable, the S/HWS or TC determines if hazardous materials/substances will be encountered during the project.

If the project will not encounter hazardous materials/substances contamination, the S/HWS proceeds to [Task 9](#).

If the project will encounter hazardous materials/substances contamination, the S/HWS proceeds to [Task 10](#).

**PROCESS TASK**

Task Title: Document to File and Send to DT

Task No.: 9

Task Description

The S/HWS documents, in the project file, the basis for determining that the project will not encounter hazardous materials/substances and provides a copy of the documentation to the DT.

**PROCESS TASK**

Task Title: Regulatory Agency Involvement

Task No.: 10

Task Description

Based on the type of hazardous materials/substances and the project's involvement with the contamination, the S/HWS identifies regulatory agencies that need to be involved (e.g., DEQ, the Montana Petroleum Tank Release Compensation Board (Petro Board), US Environmental Protection Agency (USEPA)). The S/HWS communicates with the agencies to apprise them of the contamination and the nature and extent of the project's involvement, and to determine the level of documentation necessary for compliance with regulatory requirements and for seeking reimbursement of cleanup costs (i.e., through the Petro Fund). For sites involving petroleum contamination for which MDT may want to pursue reimbursement of cleanup costs, the coordination with regulatory agencies also addresses formal determination of eligibility for reimbursement from the Petro Fund.

Regulations and Guidance

DEQ, *Application for Petroleum Release Eligibility* (Form 1R)

**PROCESS TASK**

Task Title: Site Eligible for Petroleum Fund Reimbursement?

Task No.: 11

Task Description

For petroleum tank release sites eligible for reimbursement from the Petro Fund, the S/HWS proceeds to [Task 12](#). If a site is not eligible for Petro Fund reimbursement or if a site is eligible but MDT chooses not to pursue reimbursement, the S/HWS proceeds to [Task 14](#). For non-petroleum contamination sites, the S/HWS proceeds to [Task 14](#).

**PROCESS TASK**

Task Title: Develop Work Plan

Task No.: 12

Task Description

The S/HWS, or a TC tasked by the S/HWS, prepares a Work Plan to establish the actions and estimated costs necessary for cleanup of the petroleum tank release contamination. In developing the Work Plan, the S/HWS or TC coordinates with DEQ Remediation Division and Petro Board in an iterative process to refine the work items and estimated costs for site cleanup to be approved by DEQ and the Petro Board.

**PROCESS TASK**

Task Title: Obtain Approval of Work Plan

Task No.: 13

Task Description

When the DEQ and Petro Board are satisfied with the corrective action work items and estimated costs in the draft Work Plan, the S/HWS transmits the final Work Plan to DEQ for approval. If necessary, the S/HWS provides copies of the transmittal to the USEPA and to affected Tribes if the contamination is on Reservation land.

After the S/HWS receives approval from DEQ and the Petro Board, proceed to [Task 15](#).

**PROCESS TASK**

Task Title: Develop Work Plan and Obtain Approval (as Necessary)

Task No.: 14

Task Description

For contamination sites that will not be reimbursed by the Petro Fund and for non-petroleum contaminated sites, the S/HWS or a TC tasked by the S/HWS, prepares a Work Plan to establish the actions necessary for cleanup of the contamination. The scope of the Work Plan is commensurate with the nature and extent of the hazardous materials/substances and the level of the project's involvement with the site and reflects the results of coordination with regulatory agencies. In some cases, the Work Plan may be written in the form of Special Provisions that describe the tasks to be accomplished for site cleanup.

In developing the Work Plan, the S/HWS or TC coordinates with DEQ and/or USEPA and obtains their approval of the Work Plan.

**PROCESS TASK**

Task Title: Preconstruction Cleanup?

Task No.: 15

Task Description

If the approved Work Plan provides for conducting site cleanup prior to construction, the S/HWS proceeds to [Task 16](#).

If the approved Work Plan provides for conducting site cleanup during construction, the S/HWS proceeds to [Task 17](#).

**PROCESS TASK**

Task Title: Conduct Cleanup Prior to Construction

Task No.: 16

Task Description

Prior to initiation of project construction, the S/HWS provides oversight and direction to a qualified contractor or TC that conducts hazardous material/substance cleanup in accordance with the provisions of the Work Plan for addressing contaminated sites involved with the project.

## PROCESS TASK

Task Title: Write Special Provisions

Task No.: 17

### Task Description

The S/HWS, or a TC tasked by the S/HWS, prepares Special Provisions necessary to implement tasks from the Work Plan for clean up of the contaminated site during project construction.

If the ISA identified involvement with lead-based paint on the project, the S/HWS or TC also prepares Special Provisions to ensure measures are implemented for worker safety and appropriate containment, collection and disposal of lead-based paint dust and/or debris.

The S/HWS coordinates with the DT and MDT Contract Plans Bureau to ensure the Special Provisions associated with hazardous material/substance clean up are accurately reflected in the final engineering plan documents.

### Regulations and Guidance

*MDT Road Design Manual*, Chapter Six, "Specifications/Special Provisions/Detailed Drawings"

**PROCESS TASK**

Task Title: Conduct Cleanup During Construction

Task No.: 18

Task Description

The S/HWS, or a TC tasked by the S/HWS, provides oversight during project construction, to ensure the project contractor(s) accomplishes hazardous material/substance cleanup in accordance with the Special Provisions included in the project plans.

**PROCESS TASK**

Task Title: Conduct Post Construction Monitoring (if necessary)

Task No.: 19

Task Description

If necessary, the S/HWS or a TC conducts post-construction monitoring to determine the need for any further corrective action for hazardous materials/substances involved with the project and/or to confirm that site cleanup goals have been met.

**PROCESS TASK**

Task Title: Obtain Site Closure Approval

Task No.: 20

Task Description

When the site cleanup goals are met, the S/HWS obtains closure documentation from the appropriate regulatory agencies.

The hazardous material site assessment process is complete when site cleanup goals are achieved and site monitoring can be terminated.