



# Environmental and Disposal Liabilities Identification, Documentation And Reporting Handbook v2.0



**TABLE OF CONTENTS**

	<b>Page</b>
1.0 INTRODUCTION .....	1
1.1 Applicable Standards and Guidance .....	1
1.2 Definitions .....	2
1.3 Responsibilities .....	5
2.0 EDL IDENTIFICATION.....	6
2.1 Environmental Location of Concern.....	7
2.2 Deconstruction and Renovation Activities .....	8
2.3 Environmental and Disposal Liabilities.....	9
3.0 LIABILITY STATUS .....	11
3.1 Probable .....	11
3.2 Reasonably Possible .....	12
3.3 Remote .....	12
4.0 EDL COST ESTIMATING.....	13
4.1 Reasonably Estimable.....	13
4.2 Elements of the Cost Estimate.....	15
4.3 Development of Cleanup Actions Cost Estimates.....	16
4.3.1 Total Cleanup Cost Estimates.....	16
4.3.2 Interim Cleanup Action Cost Estimates.....	16
4.3.3 Quantification of the Cost Estimate.....	17
4.3.4 Periodic Review and Update.....	19
4.4 Cost Estimate Documentation .....	20
4.5 Records Management .....	20
5.0 EDL RECORDING AND REPORTING .....	21
5.1 EDL Recording .....	21
5.2 EDL Reporting.....	22
5.2.1 Recognized EDL Amounts .....	22
5.2.2 Disclosed EDL Amounts .....	23
5.2.3 Amounts Not Reported .....	23
6.0 EDL PRIORITIZATION PROCESS.....	24
6.1 Procedures for EDL Site Prioritization.....	24

**LIST OF FIGURES**

Figure 1 EDL Identification, Liability Status, Cost Estimating, Recording and Reporting .....	10
---	----

**LIST OF APPENDICES**

Appendix A Sample Due Care Worksheet	
Appendix B Cost Estimating Guides / References	
Appendix C EDL Cost Estimate Documentation Sheet	
Appendix D EDL Ranking Tool	

## **LIST OF ACRONYMS**

AAPC	Accounting and Auditing Policy Committee
ADEQ	Arkansas Department of Environmental Quality
AST	Above Ground Storage Tank
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BOR	Bureau of Reclamation
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CHF	Central Hazardous Materials Fund
CMS	Corrective Measures Study
CWA	Clean Water Act
Department	Department of the Interior
ECL	Environmental Cleanup Liability
EDL	Environmental and Disposal Liability
EE/CA	Engineering Evaluation and Cost Analysis
FASAB	Federal Accounting Standards Advisory Board
FRTR	Federal Remediation Technologies Roundtable
FUDS	Formerly Used Defense Site
GAAP	Generally Accepted Accounting Principles
GMRA	Government Management Reform Act
Handbook	EDL Handbook Version 2.1
HCAS	Historical Cost Analysis System
IGCE	Independent Government Cost Estimate
LL	Lower Limit
LOC	Location of Concern
LTM	Long-term Monitoring
NPDES	National Pollutant Discharge Elimination System
No.	Number
OEPC	Office of Environmental Policy and Compliance
O&M	Operation and Maintenance
OMB	Office of Management and Budget
PAR	Performance and Accountability Report
P	Probable
PA/SI	Preliminary Assessment / Site Inspection
PFM	Office of Financial Management
PMB	Office of Policy, Management, and Budget
PRP	Potentially Responsible Party
R	Remote
RACER	Remedial Action Cost Engineering and Requirements
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation and Feasibility Study
RP	Reasonably Possible
ROD	Record of Decision
SFFAS	Statement of Federal Financial Accounting Standards
TSCA	Toxic Substances Control Act
UL	Upper Limit
URL	Universal Resource Locator
UST	Underground Storage Tank

## 1.0 INTRODUCTION

Current directive from the Office of Management and Budget (OMB) requires the Department of the Interior (Department) and other federal agencies to prepare annual audited financial statements in accordance with the Chief Financial Officers Act of 1990 (Public Law 101-576) and the Government Management Reform Act of 1994 (GMRA) (Public Law 103-356). OMB also requires quarterly unaudited financial statements in accordance with OMB Circular A-136, *Financial Reporting Requirements*. Per Statement of Federal Financial Accounting Standard (SFFAS) Number (No.) 5, *Accounting for Liabilities of the Federal Government*, federal agencies are required to report information on contingent environmental liabilities in their financial reports. Agencies are required to recognize a contingent liability when a future outflow or other sacrifice of resources as a result of past transactions or events is *probable* and *measurable*. Contingent liabilities that do not meet the criteria of *probable*, but are *reasonably possible*, are disclosed in notes to the financial statement. As such, the Department's bureaus are required to report contingent environmental liabilities to the Office of Financial Management (PFM) on a quarterly basis.

This guidance is intended to provide a consistent approach for estimating and reporting contingent environmental liabilities across all bureaus/offices.

### 1.1 Applicable Standards and Guidance

The reporting of contingent environmental liabilities must conform to specific governmental-accounting practices including:

- Statement of Federal Financial Accounting Standards (SFFAS) Number (No.) 5, *Accounting for Liabilities of the Federal Government*, as amended, issued by the Federal Accounting Standards Advisory Board
- Statement of Federal Financial Accounting Standards No. 6, *Accounting for Property, Plant, and Equipment*, as amended, issued by the Federal Accounting Standards Advisory Board
- *Chief Financial Officers Act of 1990*, Public Law 101-576, 101<sup>st</sup> Congress- Second Session
- *Government Management Reform Act of 1994*, Public Law 103-356, 103<sup>rd</sup> Congress- Second Session
- *Financial Reporting Requirements*, OMB Circular A-136, issued by the Office of Management and Budget, revised annually

Additional guidance developed to facilitate contingent environmental liabilities identification, cost estimating and reporting requirements include:

- *Determining Probable and Reasonably Estimable For Environmental Liabilities in the Federal Government*, Federal Financial Accounting and Auditing, Technical Release Number 2 (Technical Release No. 2), issued by the Accounting and Auditing Policy Committee (AAPC).

- Technical Bulletin 2006-1, *Recognition and Measurement of Asbestos-Related Cleanup Costs*, issued by the Federal Accounting Standards Advisory Board, September 28, 2006
- *Environmental Cleanup Liabilities and Materials Used in Facility Construction*, Director, Office of Financial Management (PFM) and Director, Office of Environmental Policy and Compliance (OEPC), dated October 1, 2003.
- *Updating Database of Sites with Potential Environmental Liability*, Assistant Secretary – Policy, Management and Budget (PMB), dated June 20, 2005.
- *Environmental and Disposal Liabilities and Implementation of the Environmental Database System*, Assistant Secretary—Policy, Management, and Budget (PMB), dated July 3, 2006.
- *Statement of Principles for Collaborative Decision Making for Cleanup of Formerly Used Defense Sites on Federal Lands*, Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-2, dated May 1, 2007.
- *Statement of Principles for Collaborative Decision Making at Mixed Ownerships Sites*, Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-3, dated October 23, 2007.
- *Policy and Procedures for Prioritization of Environmental and Disposal Liability (EDL) Sites*, Director, Office of Environmental Policy and Compliance, Environmental Compliance Memorandum (ECM) 07-4, dated December 21, 2007.
- *Inflation Factors for Environmental and Disposal Liabilities*, Director, Office of Financial Management and Director (PFM) and Office of Environmental Policy and Compliance (OEPC), issued annually.

Copies of Departmental financial guidance can be found on PFM’s public website:

<http://www.doi.gov/pfm/finstate/index.html>. Copies of Departmental environmental policies can be found on OEPC’s public website at <http://www.doi.gov/oepec/eclm>.

## 1.2 Definitions

Various terms have been used to refer to environmental liabilities including environmental contingent liabilities, environmental contaminant liabilities, and environmental cleanup liabilities; all using the acronym ECL. As of fiscal year 2006, the Department uses the terminology environmental and disposal liability (EDL) to be consistent with the terminology used in the Department’s annual Performance and Accountability Report (PAR). EDLs have the same requirements for identifying and reporting as previously applicable to ECLs. The change affects the terminology only. The following is a list of commonly used terms found within applicable environmental liability estimating and reporting standards and guidance.

- **Contaminated** - The terms “contaminated” and “contamination” used throughout this Handbook refer to releases of hazardous substances or petroleum that may pose a threat to human health or the environment.
- **Contingency** - An existing condition, situation, or set of circumstances *involving uncertainty* as to a possible gain or loss that will ultimately occur or fail to occur.

- **Department Lands** - Land or facilities under a Department of the Interior bureau's jurisdiction, custody, or control including soil, surface water, groundwater, and sediments.

For purposes of this definition, land that the United States owns in trust for an Indian tribe or individual Indian is not considered under the jurisdiction, custody, or control of a Department of the Interior bureau or office solely because of its trust status.

- **Disclosure** - Information presented in notes that is considered an integral part of the basic financial statements. A disclosure should include the nature of the contingency and an estimate of the total range of possible liability.
- **Due Care** - The process followed by a bureau or office to use reasonable effort to examine a location of concern to identify the presence or likely presence of contamination at concentrations significant enough to require further study or cleanup. The due care process must be performed by or under the oversight of an environmental professional.
- **Environmental and Disposal Liability (EDL)** - An anticipated future outflow or other sacrifice of resources (e.g., costs) where, based on the results of due care, further study or cleanup is warranted due to past or current operations that have environmental closure requirements or contaminated Department lands.
- **Environmental Professional** - Someone who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases of hazardous substances or petroleum on, at, or to Department lands or facilities.

An environmental professional must have one or more of the following:

- a. A current professional Engineer's or Geologist's license or registration and three years of relevant full time work experience;
  - b. A state- or tribal-issued registration, certification or license and three years of relevant full-time work experience;
  - c. A Baccalaureate degree or higher in science or engineering and five years of relevant full-time work experience; or
  - d. Ten years of relevant full-time work experience.
- **Government-acknowledged Financial Responsibility** - When the bureau/office did not cause or contribute to the contamination and it is not otherwise liable for cleanup costs, but the bureau chooses to accept financial responsibility to protect public health, welfare, or the environment, the cleanup costs are considered government-acknowledged.

- **Hazardous Substance** - The term “hazardous substance(s)” used throughout this Handbook is an element, compound, mixture, solution, or substance that is defined as a hazardous substance under Comprehensive Environmental Response, Compensation and Liability Act (CERCLA).
- **Liability** - For federal financial accounting purposes, a future outflow or other sacrifice of resources (e.g., costs) as a result of past events or transactions for which the Department is responsible. This definition is derived from generally-accepted accounting principles and does not imply or infer legal liability.
- **Liability Status** - The likelihood (*probable, reasonably possible, or remote*) that the bureau/office will be required to incur a future outflow or other sacrifice of resources for some or all of the study or cleanup at an EDL site. This definition is derived from generally-accepted accounting principles and does not imply or infer legal liability.
- **Location of Concern** - An area on Department lands that is suspected to be contaminated based on known past activities or observed and reported physical indicators, but where no due care has yet been conducted.
- **Probable** - A future outflow or other sacrifice of resources (e.g., costs) is more likely than not to occur.
- **Reasonably Possible** - A future outflow or other sacrifice of resources (e.g., costs) is more than *remote* but less than *likely*.
- **Recognition** - Reporting a dollar amount on the face of the basic financial statements.
- **Remote** - A future outflow or other sacrifice of resources (e.g., costs) is slight (less than *reasonably possible*).
- **Report** - Estimated costs recognized on the federal financial statements or disclosed in notes.

### **1.3 Responsibilities**

Responsibilities for the development and for the recordation of EDLs are shared by environmental program management and the equivalent-level accounting personnel. The bureau-level environmental program management is responsible for identifying EDLs, generating and reviewing cleanup cost estimates and maintaining the associated documentation on a site-by-site basis. The bureaus/offices' accounting personnel are responsible for coordinating with the environmental staff, performing a reasonableness check on reported liability amounts, and for ensuring the liability is correctly categorized as recognized or disclosed according to generally accepted accounting principles (GAAP).

At the Departmental level, the OEPC is responsible for maintaining and enhancing the database used to record EDLs, and to provide guidance to the bureaus/offices' environmental management personnel. The PFM is responsible for coordinating with the OEPC and the bureaus' accounting personnel, consolidating the individual liabilities, and for ensuring that the total liability is recognized or disclosed according to GAAP.

The OEPC and PFM will conduct periodic management reviews of selected EDL sites to check the adequacy of the cleanup cost estimates and the documentation. Bureaus/offices that prepare EDL cleanup cost estimates must retain adequate documentation of the management reviews, as well as, documentation that identify the data sources, estimating method, and assumptions used for preparing the cleanup cost estimates.



## **2.0 EDL IDENTIFICATION**

Contamination can occur from past or current operations (such as solid waste landfills; treatment, storage, or disposal facilities; ware yards; firing ranges; mine and mill sites) or unsanctioned activities (such as illegal dumping) that result in releases of hazardous substances or petroleum to the environment. Departmental bureaus/offices are required to routinely attempt to identify contamination on their lands and report that information to the responsible officials and the Department. However, in many circumstances environmental assessment (due care) activities are necessary to confirm the presence of contamination at suspect areas to determine whether further action is warranted. For example, the illegal dumping of solid waste does not in and of itself mean the area is contaminated. An area containing solid waste with no release of hazardous substances or petroleum to the environment would not be an EDL.

Currently, each bureau/office implements a process for identifying an EDL. Because each bureau has a different mission and a different organizational structure, the Department recognizes that processes and resources will vary. However, in order to ensure that all Department bureaus and offices identify and report EDLs consistently, bureau-specific EDL identification processes will meet, at a minimum, the following criteria:

- A site that is suspected to be contaminated based on known past activities or observed physical indicators, but where due care has not been conducted, will be identified as a location of concern (LOC) (see Section 2.1).
- A site WILL NOT be identified as an EDL until environmental due care has been conducted. If the due care results indicate that further action (study or cleanup) representing a future outflow of resources is warranted, the site will be identified as an EDL (see Section 2.3).

In general, environmental compliance and operation and maintenance (O & M) activities are not considered EDLs. Examples of activities that are NOT EDLs include:

- Permit requirements such as monitoring and reporting under the Resource Conservation and Recovery Act (RCRA), National Pollutant Discharge Elimination System (NPDES), or other permits;
- Indoor air quality corrective measures (with the exception of actions required as part of a cleanup such as volatile contamination in buildings associated with leaking underground storage tanks (USTs) or groundwater plumes);
- Radon mitigation (radon is a naturally-occurring gas);
- Environmental audits;
- Water and sewage systems maintenance and monitoring;
- Routine disposal of hazardous materials, chemicals, or waste or federal personal property as defined by the General Services Administration (e.g., computers);
- UST / above ground storage tank (AST) operation costs (installation of leak detectors, upgrading fill pipes, tank replacements, etc.);
- Physical hazards (e.g., mine adits);
- Physical parameter criteria (e.g., surface water turbidity, dissolved oxygen, biological oxygen demand, pH).

## **2.1 Environmental Location of Concern**

The process for identifying a LOC will vary between bureaus/offices because of different organizational structures, operations, geographic areas, and resources. However, each bureau will examine property/facility inventories, and conduct land reconnaissance. Bureaus are expected to work with other federal or state agencies, and local governments and communities to identify LOCs on Department land, as well as to discuss the progress of cleanups.

Each bureau/office maintains a property/facility inventory. Property/facility inventories will be routinely evaluated to identify areas where releases of hazardous substances or petroleum may have occurred. These areas should be inspected routinely. If physical conditions indicate a potential release of hazardous substances or petroleum may have occurred, appropriate bureau officials will be notified and steps undertaken to ensure that any environmental liabilities are identified and reported.

Additionally, bureau/office personnel routinely conduct mission-related work that involves reconnaissance of the land within their jurisdiction, custody, or control (such as mine and public access areas inspections). During these observations, physical indicators of potential hazardous-substance or petroleum releases will be noted. These physical indicators may include, but are not limited to, stained soil, solvent or petroleum odor, scorched earth, discolored vegetation, illegal dumps, dead animals, discolored water in a stream, surface water sheen, etc. Prior to conducting any additional environmental activities, the bureau/office should verify that the abnormal site conditions are on land within their jurisdiction, custody, or control.

Local bureau/office officials will determine if the abnormal physical condition falls under one of the following scenarios:

- Sufficient evidence exists that the site is an EDL;
- It can be further evaluated or cleaned up using existing O&M or infrastructure funds; or
- Additional support including technical services or site-specific funding is needed for due care to be conducted to determine if a release has occurred that warrants further study or cleanup.

If the site can be evaluated and/or cleaned up using existing O&M or infrastructure funds, then the site is neither a LOC nor an EDL. Instead, these costs are recorded as current O&M expenditures.

If additional support is required for due care to be conducted, the area will be identified as an environmental LOC. The anticipated costs associated with conducting due care are not recorded as EDLs because a determination has not been made as to the presence or suspected presence of contamination. Each bureau is responsible for identifying and tracking its LOCs. Appendix A provides a sample due care worksheet that can be used by bureaus when implementing due care.

The release or suspected presence of hazardous substances or petroleum at a LOC will be confirmed through due care by or under the oversight of an environmental professional with the

appropriate credentials to properly make this determination. Activities conducted during the due care-process may include, but are not limited to:

- Review of recorded chain-of-title documents (including restrictions, covenants and any possible liens) and good faith inquiry and investigation into prior uses of the property;
- Investigation of aerial or satellite photographs that may reflect prior uses, areas of distressed vegetation, or changing population centers;
- Inquiry into records that are available from federal, state, tribal, and/or local jurisdictions that show whether there has been a release or suspected release of hazardous substances or petroleum on the property (and adjacent property that could impact the bureau's property);
- Investigation of complaints regarding abnormal health conditions or concerns raised by the public;
- Visual site inspection of any portions of the property where contamination by hazardous substances or petroleum is known or suspected;
- Collection and analysis of selected samples; and
- Documentation of findings.

Not every activity identified above must be conducted under the due care process. The number and type of activities necessary to appropriately assess the site will be determined by or under the oversight of the environmental professional. If the results of due care indicate that it is likely that contamination is present and requires further study or future cleanup, and a future outflow of resources will be required, the LOC will become an EDL site. If, however, contamination is not present, the level of contamination is NOT significant enough to warrant study or cleanup, or cleanup is warranted but the volume is NOT significant and can be accomplished using O&M or infrastructure funds then the LOC is NOT an EDL.

The date and results of the due care conducted and any action performed will be documented and retained in bureau/office files.

## **2.2 Deconstruction and Renovation Activities**

Many building materials used in the construction or past renovation of Department (bureaus/offices) facilities contain hazardous substances (e.g., asbestos, paint containing heavy metals). These building materials, while in an undisturbed or encapsulated state (e.g. non-friable asbestos, not flaking), do not pose a health risk and are not subject to cleanup under applicable environmental laws. The generally-recognized best management practice for such materials is to monitor them, but leave them undisturbed. Only if they become friable and are released to the environment would they be considered contaminants requiring cleanup.

However, the Federal Accounting Standards Advisory Board (FASAB) established a requirement in 2006 (effective for reporting periods after September 30, 2009) for federal entities to account for all future asbestos-related cleanup and disposal costs as an environmental liability regardless of the current physical condition of the asbestos-containing materials (Technical Bulletin 2006-1). For accounting purposes, buildings or structures with building materials containing greater than one percent (>1%) asbestos are EDLs and subject to the identification,

documentation, and reporting requirements presented in this handbook. The liability recorded is the estimated costs to abate and dispose of the asbestos-containing materials if such actions would constitute an increased, reasonably estimable cost relative to the normal closure, sale, or demolition costs of the facility. This requirement is only applicable to asbestos-containing materials, and is not applicable to building materials containing other hazardous substances (e.g., heavy metals in paint).

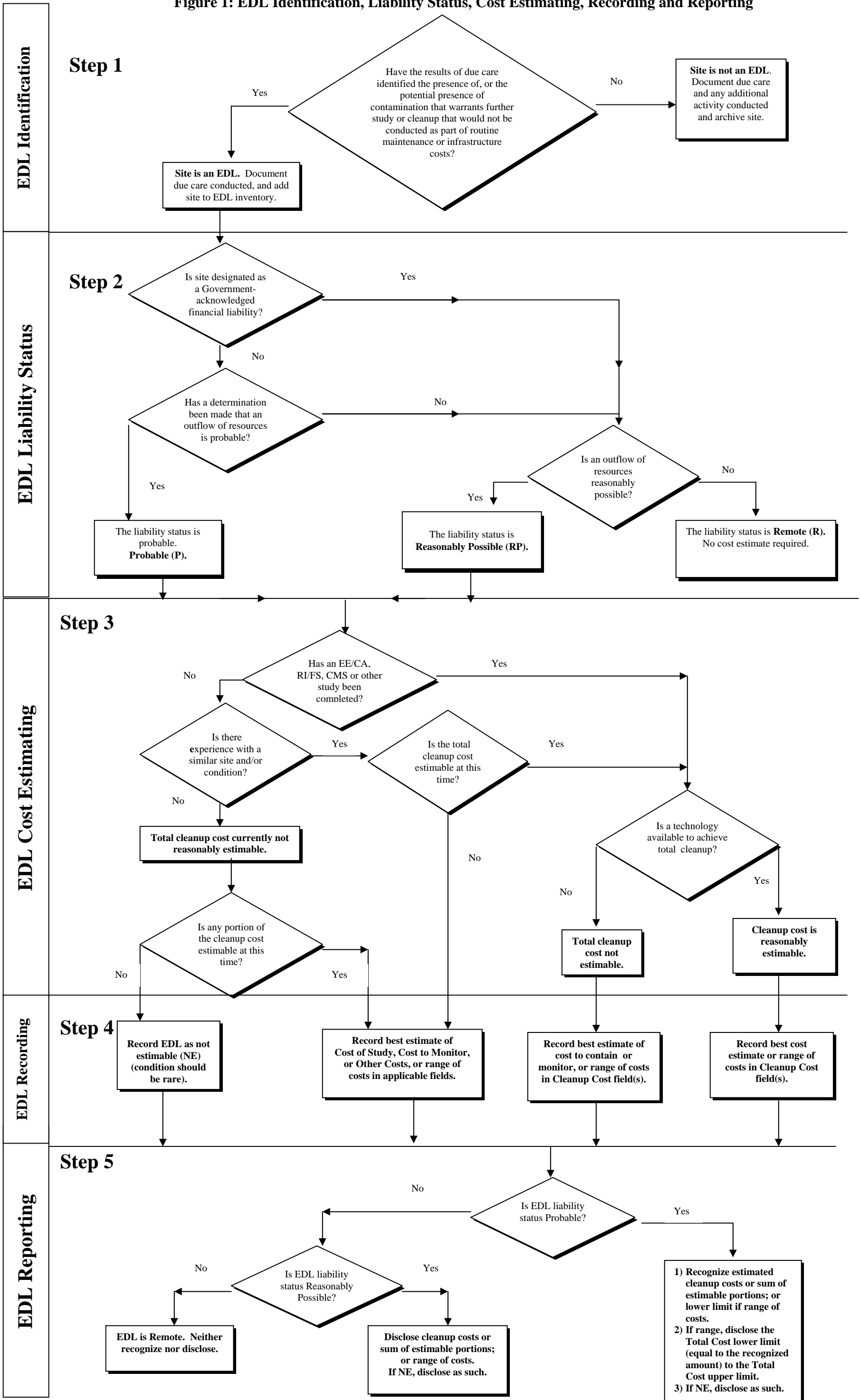
If building materials containing hazardous substances (e.g., asbestos, heavy metals in paint, or other) are in poor condition and a release to the environment at a concentration that requires further study or future cleanup has occurred, then the release site will be identified as an EDL unless the release site can be cleaned up using existing O&M or infrastructure funds, as stated in Section 2.1.

### **2.3 Environmental and Disposal Liabilities**

The process that will be used by the Department and its bureaus/offices to identify and report an EDL is illustrated in Figure 1. A LOC will be identified as an EDL if the results of the due care indicate that a known or suspected release of hazardous substances or petroleum to the environment has occurred that warrants further study or cleanup, and the cleanup is not part of routine O&M or infrastructure actions.

The date and results of the due care process and any action performed will be documented and retained in bureau files. If it is determined that the LOC meets the criteria of an EDL, it will be tracked in the Department's environmental database as an EDL. If however, the LOC does not meet the criteria of an EDL, no further action is required.

Figure 1: EDL Identification, Liability Status, Cost Estimating, Recording and Reporting



### 3.0 LIABILITY STATUS

Once an EDL has been identified, its liability status will be determined. An EDL's liability status is the likelihood that the bureau/office will incur a future outflow or other sacrifice of resources (costs) for some or all of the study or cleanup at an EDL site. The likelihood classifications are *probable* (P), *reasonably possible* (RP), or *remote* (R).

Often, the Department and its bureaus/offices expend resources to study or cleanup contamination at an EDL site in order to protect public health and the environment even though a determination regarding the Department's or bureaus' legal liability has not been decided. The Department has the right to pursue cost recovery for costs expended from responsible parties for past and future costs. However, for planned cleanup actions, the EDL liability status, as used here for federal financial accounting purposes, is determined as a current cost estimate without consideration of potential future cost recovery. Only an existing agreement, order or other legally-binding document is considered when determining the liability status of planned actions. The terms and conditions of the existing agreement or other legally-binding document govern the estimated amount reported or disclosed. Bureau environmental managers and accountants should consult with the Office of the Solicitor to reach conclusions on the likelihood of a legal liability, or the status of a legally-binding agreement, order, or other document. If the site is being addressed under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the bureau/office should contact the Federal Facilities Compliance Branch in the Solicitor's Office in Washington, D.C. For all other sites, the bureau/office should contact the appropriate Regional Solicitor's Office.

#### 3.1 Probable

An EDL has a liability status of *probable* (a future outflow or other sacrifice of resources is likely to occur) only when a determination has been made (in consultation with the Solicitor's Office, if necessary) that at least one of the following is true:

- a. The bureau/office caused or contributed to the contamination and cleanup is warranted,
- b. The outflow of resources is expected pursuant to a duty or responsibility pertaining to statute or regulation,
- c. The bureau/office has agreed to assume responsibility for cleanup costs in an interagency agreement, settlement agreement, or similar legally-binding document,
- d. The bureau/office is required to incur cleanup costs under a court decision or administrative order, or,
- e. The bureau/office will expend future resources for cleanup-related activities.

In general, if a determination has not been made regarding whether any of the criteria for *probable* apply (a through e), and a cleanup action is planned, the expected future outflow of resources (costs) is *probable*. If a legally-binding agreement, order, or other document is issued subsequent to the initiation of the cleanup action, the expected future outflow of resources (estimated costs) will be adjusted based on the requirements of the legally-binding document.

Government-acknowledged financial responsibilities do not meet the criteria necessary to be recognized as a future liability (i.e., a *probable* EDL). A government-acknowledged financial responsibility occurs when the Department (its bureaus/offices) **did not** cause or contribute to the contamination and it **is not otherwise liable** for the cleanup costs, but the bureau chooses to accept financial responsibility to protect public health, welfare, or the environment. When an appropriation has been issued and the bureau has incurred cleanup costs, any unpaid amounts for work performed are included as accounts payable on the financial statements.

The government-acknowledged designation for cleanup actions should be rare. Examples of government-acknowledged EDLs include cleanup actions on lands held in trust or cleanups associated with natural disasters.

### **3.2 Reasonably Possible**

An EDL has a liability status of *reasonably possible* if a determination has not been made regarding whether any of the criteria for *probable* apply (a through e), but the likelihood that a future outflow or other sacrifice of resources will be required is less than *probable* but greater than *remote*.

The EDL process involves uncertainty; therefore, there are circumstances where the likelihood of a future outflow of resources is not obvious. For example, contamination may be present on a bureau's land, but the bureau has not determined whether they caused or contributed to the contamination (e.g., a potential upgradient source that may have migrated on to bureau land). If no cleanup action is currently planned, the bureau may classify this site as a *reasonably possible* (or *remote*) likelihood of incurring future cost.

Additionally, if a responsible party(s) is or will be actively cleaning up the contamination and incurring all the costs, but the viability of the responsible party(s) is questionable, the bureau may classify the site as a *reasonably possible* likelihood of incurring future costs.

### **3.3 Remote**

An EDL has a liability status of *remote* if a determination has not been made regarding whether any of the criteria for *probable* apply (a through e), but the likelihood that a future outflow or other sacrifice of resources will be required is slight (less than *reasonably possible*).

Examples of *remote* EDLs include:

- Where a viable responsible party(s) is or will be actively cleaning up the contamination and incurring all the costs,
- Inaccessible locations where contamination is unlikely to affect human health or pose a risk to the environment, (cleanup is not warranted) or
- Additional expenditures are not expected to occur at the site, but information has not been received (e.g., closure letter from the regulating agency) to document and support removing the site from the EDL report.

## 4.0 EDL COST ESTIMATING

If an EDL has a liability status of *probable* or *reasonably possible*, every effort should be made to develop a total cleanup cost estimate, if it is reasonable to do so. The EDL amount will be recognized or disclosed in financial statements based on the liability status (Section 3.0). If the total cleanup cost is not reasonably estimable at the time the financial report is due, a portion of the cleanup cost that is reasonably estimable (such as the cost to study) should be reported. If no portion of the cleanup cost is estimable at the time the financial report is due, the bureau should document that a cost estimate cannot be made at this time and the reason why. However, this condition is only applicable if the EDL has recently been identified and there is insufficient time between identification and reporting to develop a cost estimate. The Department requires a cost estimate (at least a portion of the total cost estimate, e.g., cost to study) for *probable* and *reasonably possible* EDL's within one fiscal year of identification. The Department does not require cost estimates to be developed for EDLs that have a liability status of *remote*.

### 4.1 Reasonably Estimable

Various key factors (tests) should be considered in determining whether future cleanup costs can be reasonably estimated. The factors are:

1. Completion of an Engineering Evaluation/Cost Analysis (EE/CA), Remedial Investigation/Feasibility Study (RI/FS), Corrective Measures Study (CMS), or Other Study,
2. Experience with a Similar Site and/or Conditions, and
3. Availability of the Cleanup Technology.

Step 3 of Figure 1 illustrates the application of these tests. Cost estimates should be based on the application of professional environmental engineering knowledge using all relevant information and meaningful site comparisons. Estimates should be reproducible and documentation supporting the estimates should be maintained.

The following discusses the three key factors:

1. **Completion of EE/CA, RI/FS, CMS, or Other Study:** The first test in determining whether future costs are reasonably estimable is to ascertain whether there is a completed study upon which to base an estimate. For example, if an EE/CA, RI/FS, CMS, or other investigation study has been completed for a particular site, these studies would form the basis upon which to begin estimating the cleanup costs.

The fact that a site does not have a comprehensive study completed does not exempt the bureau/office from making a best effort to estimate the cleanup costs for financial statement purposes, or for reporting a cost estimate for that portion of its obligation (or potential obligation) that can be estimated (see No. 2 below). The Department recognizes that if a comprehensive study has not been completed, the quality of the cleanup cost estimate will be less reliable than if a comprehensive study has been completed. Cleanup cost estimates for sites that have not completed a comprehensive study would necessarily



be based on a set of assumptions that will be subject to change. Therefore, the level of required documentation for cleanup cost estimates where a comprehensive study has not been completed will be much less than cleanup cost estimates for EDLs where a comprehensive study has been completed (see Section 4.2).

If the results of the study indicate that no contamination exists or no further action is warranted, then an EDL does not exist and the EDL will be removed from the Department's EDL inventory. The justification for removing the EDL from the inventory must be documented.

2. **Experience With Similar Site and/or Conditions:** If no study has been completed, the next test is to determine whether a site appears to be similar to any other site or condition where experience has been gained through either a completed study or actual cleanup. Similar sites or conditions used for developing a cost estimate can be associated with other federal agencies or non-federal entities (public or private).

If there is a similar site or condition with experience gained (through actual cleanup and/or a completed study), the EDL cost estimate for a site could be based on the similar experience or conditions. The quality of a cost estimate based on a similar site may be very different from the actual cleanup costs if the actual site conditions are different than those of the similar site. Future studies will result in improved estimates as site-specific conditions become known.

If no actual remediation or study costs of a similar site and/or condition exist, but cost estimates have been developed for similar sites, these similar site-cost estimates may be used. A cost estimate developed for a similar site type (such as a firing range, landfill) with comparable assumptions (e.g., comparable climates, comparable size, comparable contaminants) can be used as a single cost estimate, or a range of cost estimates developed for similar site types could be recorded. A range of similar site type cleanup cost estimates would capture the variability of the unknown site conditions until site-specific information is obtained.

3. **Availability of a Cleanup Technology:** If a study has been completed, or a bureau or other agency has experience with a similar site and/or condition as noted above, the next test is whether there is a technology available to achieve total cleanup. If no technology exists to achieve total cleanup, then total cleanup costs would not be reasonably estimable. However, the bureau/office would be required to report the costs to contain the contamination and any other relevant costs, such as costs of future studies, treatment, or monitoring that will be implemented to minimize and control the contamination. For example, the total cleanup of certain volatiles in groundwater is often difficult to achieve. However, partial cleanup actions are implemented such as removal of the primary source of contamination, groundwater extraction and treatment, and long-term groundwater monitoring to ensure capture or natural attenuation is occurring. The costs of these actions are estimable and would be recorded. The bureau/office would calculate an amount to be recorded based on the type and length of containment required. If a record of decision (ROD) or other pertinent decision document has not been written, and

therefore, a length of time has not been determined, a reasonable length of time based on similar conditions should be assumed in the cost estimate.

If a cleanup technology is available, then cleanup costs are reasonably estimable, and the bureau/office would record the best estimate at current cost. If no amount within a range of estimates is a better estimate than any other amount, the bureau should record a range of amounts. If the estimate is based on similar site criteria, the agency would also include the anticipated cost of an EE/CA, RI/FS, CMS or other study, if required.

If management has not determined what cleanup action should be taken for an active contaminated site (current facility or operations), the cost of containment at the end of the facility's useful life, plus the cost of a study, if not yet done, should be considered as the low end of the range of future estimated cleanup costs.

## 4.2 Elements of the Cost Estimate

EDL cost estimates should include any cleanup activity or portion of an activity that has not yet been completed, such as:

- Studies, plans, designs, removal activities, cleanup activities, and cleanup operations (including O&M costs of cleanup systems) necessary to comply with applicable legal and regulatory requirements, and the costs of contractors, engineers, and consultants. **Do not include O&M costs associated with routine operations.** Only the O&M costs associated with actions to close the operation in accordance with environmental regulatory requirements should be included. For example, if a bureau was operating an active landfill, the O&M costs associated with the landfill's routine operations or infrastructure would not be considered an EDL. Even environmental sampling, analysis and reporting required under a RCRA permit during operation would not be an EDL. However, O&M costs associated with an environmental cleanup action or the closure of an inactive site, such as the O&M associated with a groundwater treatment system, would be an EDL.
- Machinery and equipment dedicated to a response action (removal or remedial) that do not have alternative uses, and their associated operating and maintenance costs would be an EDL cost element.
- Compensation and benefits of government personnel that devote significant time to an environmental cleanup effort would be an EDL cost element.
- Site restoration activities conducted as part of an environmental cleanup would be an EDL cost element.
- Long-term monitoring (LTM) associated with a response action would be an EDL cost element.

### **4.3 Development of Cleanup Actions Cost Estimates**

The Department requires bureaus/offices to develop a total cleanup cost estimate for *probable* and *reasonably possible* EDLs within one fiscal year of identification. If a total cleanup cost estimate cannot be developed (possibly because a study has not been completed and insufficient information is available regarding the type or extent of contamination), the bureaus/offices are required to develop a cost estimate for the portion of the cleanup (interim cleanup activities) that are known and estimable (such as the cost to study).

#### **4.3.1 Total Cleanup Cost Estimates**

Estimates should be calculated for the total site cleanup cost, or for a range of the total cleanup costs. A range of the total cleanup costs would be reported if site conditions have not yet been fully determined, such as the extent and/or nature of contamination or if several cleanup alternatives are possible and a preferred alternative has not been selected. Reporting a range of costs allows the estimator to capture the uncertainty inherent when predicting future cleanup costs early in the cleanup process. The assumptions used to develop the low and high end of the cost estimate range must be documented such that the estimate is reproducible and easy to revise as new site information becomes available.

For sites regulated under CERCLA that have one or more potentially responsible parties (PRPs), but the bureau/office's cleanup financial responsibilities have not yet been legally documented (under an agreement or other legally-binding documents) the bureau can develop a cost range that reflects the bureau/office's likely financial liability (such as oversight of the cleanup or long-term monitoring) on the low end of the range, and the total cleanup costs on the high end of the range. The assumptions used for creating such a range must be documented.

If the preferred cleanup alternative has been selected, the total cleanup cost estimate will be developed based on the preferred alternative as documented in the proposed plan, ROD, or other decision document. If the preferred alternative has not been selected, but a total cleanup cost estimate can be developed based on professional engineering judgment and similarities with other site conditions, the bureau should develop a total cleanup cost estimate though uncertainty exists. If several alternatives are possible, the cost estimate can be based on an assumed cleanup action, or cost estimates may be developed for different possible cleanup actions. Bureaus are encouraged to develop total cleanup cost estimates even if the preferred alternative has not been selected. These cost estimates will be used for reporting contingent liabilities on financial statements, and facilitate project and program management activities. They should not be misconstrued as a pre-decisional selection of the preferred alternative. As cost estimates are confidential, Department and bureau personnel and auditors shall not disclose this information to external parties without consultation with the Office of the Solicitor or other appropriate parties.

If the estimate is developed using a single assumed cleanup action, a range of costs could be developed to capture any uncertainty regarding actual site conditions. If a single preferred cleanup action is assumed, the reasons for selecting the action must be documented. However, the estimator may elect to develop cost estimates for several possible cleanup actions and record

a range that captures the different actions. The different cleanup actions used for developing the cost estimate range and the assumptions used must be documented.

### **4.3.2 Interim Cleanup Action Cost Estimates**

If the total cleanup cost is not currently estimable (possibly because no studies have been completed) cost estimates should be developed for those portions of the total cleanup cost (interim cleanup activities) that are known and estimable. Interim cleanup activities for which a cost is estimable, though the total cleanup cost is not, include site studies such as an EE/CA, RI/FS, CMS, etc.; or monitoring activities (conducted as part of a study) if a cleanup technology is not available. Cost estimates for interim cleanup activities should be recorded under “study” in the EDL database.

### **4.3.3 Quantification of the Cost Estimate**

Cost estimates must be based on site-specific information, and can be calculated using engineering estimates or cost models. Cost estimates are subject to audit, and therefore, adequate documentation identifying data sources, estimating method, rationale used, and assumptions must be retained and readily accessible. Detailed backup materials that support the cost estimate reported must be maintained in the project files (see Section 4.4, Cost Estimate Documentation).

If a cost model is used for estimating EDL costs, the model must be accredited by organizations with experience in estimating environmental cleanup costs.

Cost data can be obtained from a variety of sources:

- Cost estimating guides/references (see Appendix B)
- Cleanup action vendors or contractor quotes
- Professional judgment based on experience with similar projects
- Cost estimating software/databases (e.g., Remedial Action Cost Engineering and Requirements [RACER])

Cost estimating guides or references (e.g., unit price books) can provide costs for a wide variety of construction activities, including those related to remedial actions. Some guides are specifically tailored to estimate costs for environmental remediation projects. Cost data in these references are sometimes broken down into labor, equipment, and material categories, and may or may not include contractor markups. Generally, each cost is associated with a specific labor and equipment crew, and production rate. Costs are typically provided on a national average basis for the year of publication of the reference.

Quotes from cleanup action vendors or construction contractors can provide costs that are more site-specific in nature than costs taken from standard guides and references. These quotes usually include contractor markups and are usually provided as a total cost rather than

categorized as labor, equipment, or materials. If possible, more than one vendor quote should be obtained.

Quotes from multiple sources can be averaged, or the highest quote can be used in the cost estimate if the collected quotes seem to be at the low end of the industry range. Vendors or contractors can also be an important source of design-related information, including operating capacity, production rates, operating life, and maintenance schedules that may have implications for O&M costs.

Estimates and actual costs of similar projects can also be used as a source of cost data. Professional-engineering judgment should be exercised where cost data taken from another project need to be adjusted to take into account site- or technology-specific parameters. Sources of actual cost data from government remediation projects are maintained by various federal agencies. These sources include the Historical Cost Analysis System (HCAS) <http://www.frtr.gov/ec2/ecanalysisystem.htm> and Federal Remediation Technologies Roundtable (FRTR) cost and performance reports (<http://www.frtr.gov/costperf.htm>). HCAS and the FRTR reports are two initiatives that are currently being used to collect and record treatment technology costs in a standardized format. If estimates and actual costs of similar projects are used to develop a cost estimate, the estimator should document the name of the similar site used, the similarities that justify use of this site's estimate or actual costs, and any adjustments applied (including an inflation factor if the estimate or actual cost used is not current). This information would be maintained in the project file as detailed backup material that supports the cost estimate.

Cost estimating software and databases can also be used as sources of cost data. The majority of available software tools are designed to estimate the cost for all or selected cost elements of an alternative. One such Government-sponsored software tool is the RACER cost estimating system, which is sponsored by the U.S. Air Force, U.S. Army Corps of Engineers, and the Department. More information on RACER can be found at the following internet site: <http://talpart.earthtech.com/racer.htm>

The Department's Central Hazardous Materials Fund (CHF) Program uses RACER as a uniform method for estimating CERCLA-related cleanup costs. RACER has been reviewed and approved by PricewaterhouseCoopers (LLP) and is accredited to provide automated, consistent, repeatable, and documented estimates for environmental cleanup of contaminated sites. RACER provides a reasonable cost estimate for program funding purposes using site information available at the time the estimate is prepared (see memorandum from Assistant Secretary, PMB dated June 20, 2005 in Section 1.1).

#### **4.3.4 Periodic Review and Update**

Changes / updates to cleanup cost estimates are required so that periodic financial statements are fairly presented. Future costs cannot be known with certainty; therefore, estimating requires the exercise of judgment. Therefore, cost estimates change when there is a material change in the status of the site, as cleanup process progresses, as more experience is acquired, and as additional information is obtained. Even if no new site information has been obtained and no cleanup

activities have occurred, the existing cost estimate will be reviewed at least annually and adjusted for inflation (once annually). Any changes to the estimate must be documented in the detailed backup materials that support the cost estimate (Section 4.4).

New or clarifying information that would affect a cost estimate may include:

- The type and extent of contaminants at the site
- The identification, number and financial position of PRPs
- The allocation of costs among PRPs based on judgments, assessments, or consent decrees
- Data regarding the remediation experiences at other sites
- Results of an EE/CA, RI/FS, CMS or other study
- Approval of a ROD or other decision document
- Refinements of the remediation plan
- The type of technology available to remediate
- Unanticipated problems identified during remediation
- The type and duration of post-closure monitoring required
- Unanticipated problems encountered during the post-closure monitoring period
- New regulations regarding the appropriate method of disposing hazardous wastes
- New laws regarding the acceptable levels of contamination
- Actual cost expended for active cleanup sites

As an example, the preferred alternative presented in the proposed plan can undergo changes as a result of public comment or new information such as additional site characterization data. Any changes to the selected cleanup alternative should be reflected in an updated EDL cost estimate (Section 4.4).

Cost estimates generated in previous fiscal years should be escalated to reflect a current cost. The Department currently applies an inflation factor developed by the State of Arkansas Department of Environmental Quality (ADEQ) to adjust environmental cleanup cost-to-complete estimates. The inflation factors are obtained from ADEQ's website ([www.adeg.state.ar.us/hazwaste/branch\\_programs/rcra\\_financial\\_assurance.htm](http://www.adeg.state.ar.us/hazwaste/branch_programs/rcra_financial_assurance.htm)) and provided to the bureaus. The Department builds the applicable inflation factor into the Department's environmental database (Section 5.1, EDL Recording) on an annual basis (see Inflation Factors memorandum from PFM/OEPC in Section 1.1). If no changes to the cost estimate of a site have been made, then at the end of the fiscal year, bureau accounting personnel should apply the built-in inflation factor to their bureau's sites. The escalation (or inflation factor) applied should be documented in the detailed backup materials that support the cost estimate.

For sites where work has been completed within the fiscal year, but no new site information has been obtained that would alter the existing cost estimate, it would be appropriate to reduce the existing EDL estimate by the cost of the work completed, since the last reporting period and apply the annual inflation factor (e.g., [existing estimate - cost of work completed] x [inflation factor]). In certain cases, the cost of the work completed may be immaterial compared to the total cleanup cost estimate (i.e., less than  $\pm 10$  percent [%]). In these cases, the bureau/office may decide not to change the EDL cost estimate.

If no work was completed within the fiscal year and no new site information has been obtained that would alter the existing cost estimate, the inflation factor alone would be applied to the previous cost estimate (e.g., existing estimate x inflation factor) once annually.

#### **4.4 Cost Estimate Documentation**

All cost estimates will be documented such that costs and underlying assumptions are clearly presented and understood. Documentation should include:

- Detailed backup materials that support the cost estimate for interim cleanup activities and total site cleanup (including assumptions used)
- Cost summary of individual cleanup alternatives
- Comparative cost summary of cleanup alternatives (if costs for multiple alternatives are estimated)

The cost estimate of each cleanup action will be documented. The Department has developed a form for the appropriate documentation of cost estimates. The EDL Cost Estimate Documentation Sheet (Appendix C) can be used by bureaus/offices, or they can use their own bureau-developed forms. If the total cleanup cost is estimable, the estimator should fill out the portion of the Department's documentation sheet applicable to the total cleanup cost. However, if only a portion of the total cleanup cost is estimable, the applicable interim cleanup action sections of the documentation sheet should be filled out. The cost estimate should be presented by activity-based work elements and include all capital costs, all labor costs, annual O&M costs, and any periodic costs (LTM). The detailed backup materials that demonstrate how the work element costs were derived need to be maintained with the cost estimation documentation sheet in the project files. The EDL Cost Estimate Documentation Sheet is also available directly from the Cost Estimate module of the Department's environmental database.

All EDL cost estimates will be reviewed and approved by the bureaus. This process will be documented in the Department's environmental database. Detailed site information and backup materials to support the cost estimate will be maintained in the project files.

#### **4.5 Records Management**

All records and documentation associated with the development of a cost estimate or with the development of a revised cost estimate needed to support a site's listing on the Department's environmental database must be retained by the preparing field office. All applicable documentation should be readily accessible for review even after the EDL is removed from the inventory. Therefore, EDL records and documents will be maintained for no less than two years after the site cleanup action is complete. This retention applies to any required long-term site maintenance and LTM, but does not supersede any regulatory requirements. The cost estimates will be further documented in the Department's environmental database (Section 5.0).

## **5.0 EDL RECORDING AND REPORTING**

Each bureau/office must provide the PFM and the OEPC with information on their estimated EDLs to be used in preparing quarterly and annual financial statements no later than one week before the end of each quarter. To facilitate the recording, tracking and reporting of EDLs, the Department has developed an environmental database. Bureaus were required to utilize the Department's environmental database for the recording, tracking and reporting of EDLs starting in the third quarter, fiscal year 2006.

### **5.1 EDL Recording**

The term "record" as used here refers to the information documented in the Department's environmental database. The database is located on the Department's intranet at the universal resource locator (URL) <http://ecl.doi.gov>. The database can be accessed by approved Department and bureau personnel. Access to bureau data and specific privileges (such as edit, read only) will be determined by a designated EDL bureau administrator and approved by the Department. Training on how to use the environmental database can be requested by contacting OEPC directly. Within the Environmental Database, there is also an EDL tutorial which provides background information about EDL issues, as well as, instructions on using the database.

New EDL sites can be recorded into the database as they are identified and site-specific information and cleanup cost estimates can be revised as new information is obtained. Per memorandum "Environmental and Disposal Liabilities and Implementation of the Environmental Database System" issued by the Assistant Secretary-Policy, Management, and Budget (July 3, 2006), bureaus/offices are required to follow a set schedule for reporting data to the Environmental Database. At the start of the first business day of the new quarter, PFM/OEPC personnel will "freeze" (archive) the current data in the database. Once frozen, the quarterly data cannot be changed. If a situation arises within one week after the data has been frozen that may affect the materiality of the financial statements, the bureau can request PFM to open the database. Any new EDL sites and revisions to existing EDL sites that will be reported on the next financial statement (for the current, active quarter) can be made at any time during the current, active quarter by approved users. Bureau administrators will be responsible for approving all data that are reported on the financial statements and archived. Before the end of the quarter, bureaus will inform PFM/OEPC via email that they have finished approving and certifying their sites. Reviews and approval by designated bureau personnel will be recorded in the Department's environmental database.

In order for Department personnel and bureau/office users to track the progress of cleanup at EDL sites, compare cost estimates developed at similar sites, or generate EDL site statistics for assessing purposes, the database requires bureaus to provide site-specific general information including:

- Facility name and site name
- Location (region, city [if applicable], state, zip [if applicable], latitude and longitude)



- Site type (e.g., landfill / dump, firing range, underground storage tank)
- Contaminants of Concern
- Affected Media
- Stage (e.g., the stage of the cleanup process such as study, cleanup / remediation / removal, LTM)
- CHF Site (identifies the EDL site as receiving cleanup funds under the Department's Central Hazardous Materials Fund [CHF] Program)
- Law / Regulation (CERCLA, RCRA, UST, CWA [Clean Water Act], CAA [Clean Air Act], TSCA [Toxic Substances Control Act], or Other)
- EPA's Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) ID and name, or Federal Docket name (if applicable).

The bureaus/offices will also be required to record in the database the likelihood of incurring future costs as *probable*, *reasonably possible*, or *remote*, based on the criteria specified in Section 3.0, Liability Status.

Cost estimates, the date the cost estimate was generated, and the planned and actual completion dates (in fiscal year) will also be recorded in the database. The relevancy of the cost estimate will be captured in the database by the user selecting the cost estimating method used (independent government cost estimate [IGCE], contractor supplied, professional judgment based on known comparable site costs, or model) will be captured in the database.

Database users with edit privileges can add notes and attach pertinent electronic documents (e.g., PDF, Microsoft files, etc.) associated with EDL sites within the database. Notes can include (but are not limited to) reasons for general information, liability status, or cost estimate revisions. Attached documents can include (but are not limited to) executive summaries of detailed studies, maps, RODs, letters stating no-further-action required received from the state, etc.

## **5.2 EDL Reporting**

As used in this guidance, the term "reporting" means to recognize an amount on the face of financial statements or to disclose an amount, a range of amounts, or a comment regarding the uncertainty of the EDL cost estimate in the financial statements notes. EDL cost estimate reporting is illustrated in Figure 1, Step 5. The estimated recognized or disclosed amounts will be obtained from reports generated from the Department's environmental database. Reports have been designed that will calculate individual and aggregate recognized and disclosed amounts.

### **5.2.1 Recognized EDL Amounts**

The Department and its bureaus/offices are required to recognize an EDL when the future outflow or other sacrifice of resources is *probable* and *reasonably estimable*. If both these conditions exist, the EDL cost estimate, or the portion of the total cleanup cost that is estimable at this time, will be included in the amount recognized on the face of financial statements.

If the cost estimate is a single amount, this amount will be recognized. However, if the EDL cost estimate is a range of amounts, the minimum amount (lower limit [LL]) would be recognized. Although it is understood that the minimum amount of the range is not necessarily the amount that will ultimately be expended, it is not likely that the ultimate amount will be less than the minimum amount.

The environmental database is designed to calculate the amount to recognize on financial statements. The recognized amount can be calculated for each site, each bureau, and for all bureaus (the Department). For EDLs having a liability status of *probable* (P), the sum of Cost to Study LL, Cost to Monitor LL, Other Costs LL, and Cleanup Cost LL, equal to the Total Cost LL, would be included in the amount recognized.

### **5.2.2 Disclosed EDL Amounts**

The total estimated loss is disclosed in notes in financial statements. There are two conditions under which the EDL cost estimate is included in the estimated loss. The two conditions are described below, and illustrated in Figure 2, Step 5.

1. If the EDL has a liability status of *probable*, the entire range of the estimated total cleanup costs for *probable* sites is disclosed in notes associated with the financial statements. For example, if the estimated cost range was \$100,000 to \$1,000,000, \$100,000 would be recognized and a range of \$100,000 to \$1,000,000 would be disclosed as the estimated loss.
2. If the EDL has a liability status of *reasonably possible*, *no costs would be recognized, but* the estimated total cleanup costs, or the range of estimated costs, would be included in the estimated loss.

The environmental database has been designed to calculate the estimated loss amount that is disclosed in notes in the financial statements. The disclosed amount range can be calculated for each site, each bureau, and for all bureaus (the Department). In the database, the lower limit of the disclosed range is calculated as the sum of Cost to Study LL, Cost to Monitor LL, Other Costs LL, and Cleanup Cost LL, equal to the Total Cost LL for all sites with a liability status of *probable and reasonably possible*. The upper limit of the disclosed range is calculated as the sum of Cost to Study upper limit [UL], Cost to Monitor UL, Other Costs UL, and Cleanup Cost UL, equal to the Total Cost UL for all sites with a liability status of *probable and reasonably possible*.

If the aggregate of either the *probable* or *reasonably possible* EDL sites is not estimable, a comment that the EDL costs are not estimable at this time and an explanation would be included in the disclosure notes associated with the financial statements. However, this occurrence should be rare and would be applicable if the EDL has recently been identified and there is insufficient time between identification and reporting to develop a cost estimate.

### **5.2.3 Amounts Not Reported**

If an EDL has a liability status of *remote*, no reporting (i.e., recognizing or disclosing) is necessary in the financial statements.

## **6.0 EDL PRIORITIZATION PROCESS**

All bureaus/offices must rank and prioritize their EDL sites and record the results in the Department's environmental database. This prioritization process nationally ranks the Department's contaminated sites as Priority 1, 2, or 3 and meets the Department's objective of identifying the most critical sites. This directive is detailed in Environmental Compliance Memorandum (ECM) 07-4 issued by OEPC on December 21, 2007.

This prioritization system is a Department management tool. Although it will reside in the EDL database, it is not part of the environmental contingency liability process. Therefore, it is not subject to review by financial auditors.

Bureaus/offices may continue to use their existing ranking system as long as they incorporate the Department's key elements, which include consideration of human health and environmental risk and legal factors. Bureaus/offices that do not have a ranking system, or have a system that is missing the Department's key elements, must either develop a compliant ranking scheme or use the Department's EDL ranking tool (Appendix D). In any event, bureaus must then categorize their sites as Priority 1, 2 or 3.

### **6.1 Procedures for EDL Site Prioritization**

***Step 1 - Numerical Ranking*** – Bureaus/offices must rank their sites based on the key elements of consideration of human health and environmental risk, and legal factors. This will result in all sites within a bureau/office being ranked in an ordinal fashion.

***Step 2 - Categorize Sites as Priority 1, 2, or 3*** - Based on the ranking results, the bureaus/offices will categorize their EDL sites as Priority 1, Priority 2, or Priority 3. Priority 1 sites will represent the highest priority sites based on potential risk. The bureaus/offices will provide OEPC a brief description for their categorization based on their ranking process.

***Step 3 - Verify Financial Liability Status*** – Bureaus/offices will verify that Priority 1 sites have a corresponding *probable* liability status. Priority 1 sites that are not *probable* would require a defensible reason (e.g., a legally-binding agreement with a responsible party conducting the cleanup, including bureau oversight costs) documented in the Department's environmental database. CHF sites will likely have a high rank and a corresponding *probable* liability, with a few exceptions due to responsible party agreements.

Sites with a *reasonably possible* or *remote* liability status (recognizing exceptions as cited above) will likely have a lower ranking than sites with a *probable* liability status, with few exceptions.

***Step 4 - Document Prioritization Results*** – Bureaus/offices will document the numerical ranking result and prioritization category for each EDL site in the Department's environmental database. High ranked sites that do not have a corresponding *probable* liability must have a defensible reason for the lower liability status documented in the environmental database. Bureaus/offices will be required to review and revise, as appropriate, this information in the environmental database by the end of the fourth quarter of each fiscal year.

**Environmental and Disposal Liabilities**  
**Identification, Documentation and Reporting Handbook v2.0**  
**Appendices**

## **Appendix A**

### **Sample Due Care Worksheet**

**Due Care Documentation Sheet**

1.	Bureau	Select ▼	
2.	Date reported:		
	a. Reported by: (name/title/contact information)		
	b. Reported to: (name/title/contact information)		
3.	Date inspected: (mm/dd/yyyy)		
	a. Inspected by: (name/title/contact information)		
4.	Current FY Quarter	Select Quarter ▼	Select FY ▼
5.	Facility/Site Name		
6.	Facility ID Number		
7.	Location Description		
8.	City / State (XX)		
9.	Longitude/Latitude (in Decimal Degrees)		Conversion Note ▼
10.	GPS coordinates		
11.	Site Type / Source	Select ▼	
12.	Describe the abnormal physical conditions observed (text format).		
13.	Due Care Status	Select Status ▼	
14.	Due Care Scheduled Date	Select ▼	
15.	Date Due Care to be completed (mm/dd/yyyy)		
16.	If Due Care has been completed, describe the activities conducted and results (text format), and select the applicable disposition of the LOC (pull down).		
	a. Description:		
	b. Disposition:		Disposition ▼
17.	Date added to EDL inventory (mm/dd/yyyy)		
18.	Due Care conducted by: name/title/contact information		
19.	Date Due Care conducted (mm/dd/yyyy)		
20.	a. Reviewed/Approved by: (name/title/contact information)		

**Data Elements**

**Select ▼**

BIA  
BLM  
BOR  
FWS  
NPS  
USGS

**Select Quarter ▼**

1st Quarter  
2nd Quarter  
3rd Quarter  
4th Quarter

**Select FY ▼**

2006  
2007  
2008  
2009  
2010

**Conversion Note ▼**

Convert Degrees, Minutes, Seconds to Decimal Degrees by dividing the minutes by 60 and the seconds by 3600 and adding to the degrees (e.g. 40 + 12'/60 + 50"/3600 = 40.2138889DD)

**Select ▼**

Abandoned Mine/Mineral Processing Mill/ Tailings  
Abandoned Oil, Gas or Fluid Well(s)  
Active Mine/Mineral Processing Mill/ Tailings  
Active Oil, Gas or Fluid Well(s)  
Acquired Federal Facility  
Acquired Industrial Facility  
Acquired Private Property  
Agricultural / Dip Vats  
Airfield  
DOI Facility  
Illegal Dumping / Burning of Hazardous Substances  
Improper Disposal  
Firing Range  
Landfill/Dump  
Leaking Aboveground Storage Tank(s)  
Leaking Underground Storage Tank(s)  
Mixed Federal Industrial Facility  
Pipeline Leaks/Spills  
Reserve or Treatment Pit  
School / Buildings  
Spills  
Utilities  
Other (specify below)

**Select Status ▼**

Schedule Planning  
Scheduled  
Completed

**Select ▼**

Not Yet Scheduled  
Within a FY  
Within 3 FYs  
Within 5 FYs

**Disposition ▼**

Further study or cleanup is warranted. Site is an EDL.  
Move site to EDL inventory.  
No further study or cleanup is warranted. Site is NOT an EDL. Remove site from LOC inventory.

## **Appendix B**

### **Cost Estimating Guides / References**



## **Appendix B. Cost Estimating Guides and References**

The following documents can provide a reasonable basis for the development of an EDL cost estimate. However, this list is not intended to be all inclusive and is subject to periodic updating.

Association for the Advancement of Cost Engineering International. 1990. Standard 10S-90. Standard Cost Engineering Terminology. (AACE 1990)  
<http://www.aacei.org/technical/rps/10s-90.pdf>

Code of Federal Regulations (CFR). Title 40, Part 300. National Oil and Hazardous Substances Pollution Contingency Plan (NCP)  
[http://www.access.gpo.gov/nara/cfr/waisidx\\_07/40cfr300\\_07.html](http://www.access.gpo.gov/nara/cfr/waisidx_07/40cfr300_07.html)

United States Environmental Protection Agency. October 1988. Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA. Interim Final EPA/540/G-89/004. (USEPA 1988)  
<http://www.epa.gov/superfund/policy/remedy/pdfs/540g-89004-s.pdf>

United States Environmental Protection Agency. April 1990. A Guide to Selecting Superfund Remedial Actions. OSWER Publication 9335.0-27FS. (USEPA 1990).  
[http://www.epa.gov/superfund/community/relocation/gui\\_sel.htm](http://www.epa.gov/superfund/community/relocation/gui_sel.htm)

United States Environmental Protection Agency. June 25, 1993. Memorandum: Revisions to OMB Circular A-94 on Guidelines and Discount Rates for Benefit-Cost Analysis. OSWER Directive No. 9355.3-20. (USEPA 1993).  
<http://www.epa.gov/superfund/policy/remedy/pdfs/revision.pdf>

United States Environmental Protection Agency. September 1996. The Role of Cost in the Superfund Remedy Selection Process. Quick Reference Fact Sheet. (USEPA 1996).  
[http://www.epa.gov/superfund/policy/remedy/pdfs/cost\\_dir.pdf](http://www.epa.gov/superfund/policy/remedy/pdfs/cost_dir.pdf)

United States Environmental Protection Agency. August 1997. Rules of Thumb for Superfund Remedy Selection. (USEPA 1997).  
<http://www.epa.gov/superfund/policy/remedy/rules/rulesthm.pdf>

United States Environmental Protection Agency. February 1990. Scopers Notes – An RI/FS Costing Guide. Bringing in a Quality RI/FS on Time and Within Budget. EPA/540/G-90/002. (USEPA 1990).  
<http://www.epa.gov/superfund/policy/remedy/pdfs/540g-90002-s.pdf>

United States Environmental Protection Agency. July 1999. A Guide to Preparing Superfund Proposed Plans, Records of Decision, and Other Remedy Selection Decision Documents. EPA/540/R-98/031. (USEPA 1999).  
<http://www.epa.gov/superfund/policy/remedy/rods/index.htm>

United States Environmental Protection Agency. July 2000. A Guide to Developing and Documenting Cost Estimates During the Feasibility Study. EPA/540/R-00/002. (USEPA 2000). <http://www.epa.gov/superfund/policy/remedy/pdfs/finaldoc.pdf>

United States Department of the Interior, Bureau of Reclamation. Generic Cost Estimate Tables and Ranges using 2007 Inflation Factors. Prepared for the Central Hazardous Materials Fund, March 2008.

## **Appendix C**

### **EDL Cost Estimate Documentation Sheet**

## EDL Cost Estimate Documentation Sheet

### Disclaimer

This form is designed to document the cost estimate for the referenced site in DOI's EDL report as required and defined by applicable federal accounting standards. Nothing on this form constitutes or should be construed as an admission of fact or the assertion, adoption, or concession of any legal, regulatory, financial, accounting, environmental, scientific or engineering position, projection or conclusion. Estimating future costs associated with the cleanup of environmental damage is fraught with uncertainty. The uncertainty may be high early in the cleanup process, but should decrease as site conditions are better understood. As such, the cleanup cost estimates presented at this time may not accurately reflect the actual cost required to achieve total cleanup. Moreover, the information on this form is strictly confidential and is protected by all applicable privileges.

Note: Work sheet tab 1 alone will be sufficient to document a site's cleanup cost estimate if the site does not consist of multiple sub-areas (e.g., operable units or other) or include several cleanup action alternatives. If the site consists of multiple sub-areas with different cleanup actions activities, a cost estimate will be developed for each sub-area. Tabs 2 and 3 can be used to document different sub-areas. The total cost estimate will combine the cost estimates of the sub-areas (tabs 1, 2, and 3). Additional tabs can be added for additional sub-areas as needed.

Additionally, cost estimates can be developed for several response alternatives if the preferred alternative has not been determined and the estimator cannot assume the alternative that will be preferred. The individual sub-area sheets (tabs 1, 2, and 3) can be used to document individual response alternatives.

1. **Date Completed** \_\_\_\_\_
2. **Current FY Quarter** \_\_\_\_\_
3. **Site Name** \_\_\_\_\_
4. **Sub-area or Alternative Name (if applicable)** \_\_\_\_\_
5. **Location / State** \_\_\_\_\_
6. a. **Estimator's Name** \_\_\_\_\_
- b. **Estimator's Position** \_\_\_\_\_
- c. **Estimator's Signature** \_\_\_\_\_
7. a. **Reviewer's / Approver's Name** \_\_\_\_\_
- b. **Reviewer's / Approver's Position** \_\_\_\_\_
- c. **Reviewer's / Approver's Signature** \_\_\_\_\_
8. **Site /Sub-area Type**      **Select Applicable**

**Date** \_\_\_\_\_

- |   |   |
|---|---|
| Abandoned Mine/Mineral Processing Mill/ Tailings  | <input type="checkbox"/>                  |
| Abandoned Oil, Gas or Fluid Well(s)               | <input type="checkbox"/>                  |
| Active Mine/Mineral Processing Mill/ Tailings     | <input type="checkbox"/>                  |
| Active Oil, Gas or Fluid Well(s)                  | <input type="checkbox"/>                  |
| Acquired Federal Facility                         | <input type="checkbox"/>                  |
| Acquired Industrial Facility                      | <input type="checkbox"/>                  |
| Acquired Private Property                         | <input type="checkbox"/>                  |
| Agricultural / Dip Vats                           | <input type="checkbox"/>                  |
| Airfield  | <input type="checkbox"/>                  |
| DOI Facility                                      | <input type="checkbox"/>                  |
| Illegal Dumping / Burning of Hazardous Substances | <input type="checkbox"/>                  |
| Improper Disposal                                 | <input type="checkbox"/>                  |
| Firing Range                                      | <input type="checkbox"/>                  |
| Landfill/Dump                                     | <input type="checkbox"/>                  |
| Leaking Aboveground Storage Tank(s)               | <input type="checkbox"/>                  |
| Leaking Underground Storage Tank(s)               | <input type="checkbox"/>                  |
| Mixed Federal Industrial Facility                 | <input type="checkbox"/>                  |
| Pipeline Leaks/Spills                             | <input type="checkbox"/>                  |
| Reserve or Treatment Pit                          | <input type="checkbox"/>                  |
| School / Buildings                                | <input type="checkbox"/>                  |
| Spills  | <input type="checkbox"/>                  |
| Utilities   | <input type="checkbox"/>                  |
| Other (specify below)                             | <input style="width: 100%;" type="text"/> |

**Select Affected Media**

- |               |                          |
|---------------|--------------------------|
| Air           | <input type="checkbox"/> |
| Soil          | <input type="checkbox"/> |
| Sediment      | <input type="checkbox"/> |
| Groundwater   | <input type="checkbox"/> |
| Surface Water | <input type="checkbox"/> |

9. Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)

a.	
b.	
c.	
d.	

10. State The Problem (text format)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

- a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.
- b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) \_\_\_\_\_
- c. Remedial / Removal Action or equivalent (includes design and construction)
- d. O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)
- e. LTM (long-term monitoring)


Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other \_\_\_\_\_

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes

No

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes

No

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

18. Select the Cost Estimating Method Used.

- IGCE
- Contractor Estimate
- RACER or Other Cost Model
- Professional Judgment / Based on Comparable Site Costs
- Other (specify below)

\_\_\_\_\_

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

Total Cleanup Cost Estimate Buildup						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
<b>Total Site / Sub-area Cleanup Cost Estimate</b>					<b>\$0</b>	<b>\$0</b>

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete

21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Study Estimate**

\$0

\$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Monitor Estimate**

\$0

\$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Other Cost Estimate**

	\$0	\$0
--	-----	-----

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete



**EDL Cost Estimate Documentation Sheet**

**Disclaimer**

This form is designed to document the cost estimate for the referenced site in DOI's EDL report as required and defined by applicable federal accounting standards. Nothing on this form constitutes or should be construed as an admission of fact or the assertion, adoption, or concession of any legal, regulatory, financial, accounting, environmental, scientific or engineering position, projection or conclusion. Estimating future costs associated with the cleanup of environmental damage is fraught with uncertainty. The uncertainty may be high early in the cleanup process, but should decrease as site conditions are better understood. As such, the cleanup cost estimates presented at this time may not accurately reflect the actual cost required to achieve total cleanup. Moreover, the information on this form is strictly confidential and is protected by all applicable privileges.

Note: Work sheet tab 1 alone will be sufficient to document a site's cleanup cost estimate if the site does not consist of multiple sub-areas (e.g., operable units or other) or include several cleanup action alternatives. If the site consists of multiple sub-areas with different cleanup actions activities, a cost estimate will be developed for each sub-area. Tabs 2 and 3 can be used to document different sub-areas. The total cost estimate will combine the cost estimates of the sub-areas (tabs 1, 2, and 3). Additional tabs can be added for additional sub-areas as needed.

Additionally, cost estimates can be developed for several response alternatives if the preferred alternative has not been determined and the estimator cannot assume the alternative that will be preferred. The individual sub-area sheets (tabs 1, 2, and 3) can be used to document individual response alternatives.

- 1. **Date Completed** \_\_\_\_\_
- 2. **Current FY Quarter** \_\_\_\_\_
- 3. **Site Name** \_\_\_\_\_
- 4. **Sub-area or Alternative Name (if applicable)** \_\_\_\_\_
- 5. **Location / State** \_\_\_\_\_
- 6. a. **Estimator's Name** \_\_\_\_\_
- b. **Estimator's Position** \_\_\_\_\_
- c. **Estimator's Signature** \_\_\_\_\_
- 7. a. **Reviewer's / Approver's Name** \_\_\_\_\_
- b. **Reviewer's / Approver's Position** \_\_\_\_\_
- c. **Reviewer's / Approver's Signature** \_\_\_\_\_
- 8. **Site /Sub-area Type**      **Select Applicable**

- Date** \_\_\_\_\_
- Select Affected Media**
- Air
  - Soil
  - Sediment
  - Groundwater
  - Surface Water

Abandoned Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>
Abandoned Oil, Gas or Fluid Well(s)	<input type="checkbox"/>
Active Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>
Active Oil, Gas or Fluid Well(s)	<input type="checkbox"/>
Acquired Federal Facility	<input type="checkbox"/>
Acquired Industrial Facility	<input type="checkbox"/>
Acquired Private Property	<input type="checkbox"/>
Agricultural / Dip Vats	<input type="checkbox"/>
Airfield	<input type="checkbox"/>
DOI Facility	<input type="checkbox"/>
Illegal Dumping / Burning of Hazardous Substances	<input type="checkbox"/>
Improper Disposal	<input type="checkbox"/>
Firing Range	<input type="checkbox"/>
Landfill/Dump	<input type="checkbox"/>
Leaking Aboveground Storage Tank(s)	<input type="checkbox"/>
Leaking Underground Storage Tank(s)	<input type="checkbox"/>
Mixed Federal Industrial Facility	<input type="checkbox"/>
Pipeline Leaks/Spills	<input type="checkbox"/>
Reserve or Treatment Pit	<input type="checkbox"/>
School / Buildings	<input type="checkbox"/>
Spills	<input type="checkbox"/>
Utilities	<input type="checkbox"/>
Other (specify below)	<input type="checkbox"/>

9. Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)

a.	
b.	
c.	
d.	

10. State The Problem (text format)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

- a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.
- b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) \_\_\_\_\_
- c. Remedial / Removal Action or equivalent (includes design and construction)
- d. O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)
- e. LTM (long-term monitoring)


Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other \_\_\_\_\_

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes	<input type="checkbox"/>
No	<input type="checkbox"/>

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

18. Select the Cost Estimating Method Used.

- IGCE
- Contractor Estimate
- RACER or Other Cost Model
- Professional Judgment / Based on Comparable Site Costs
- Other (specify below)

\_\_\_\_\_

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

Total Cleanup Cost Estimate Buildup						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
<b>Total Site / Sub-area Cleanup Cost Estimate</b>					<b>\$0</b>	<b>\$0</b>

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete

21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Study Estimate**

\$0

\$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Monitor Estimate**

\$0

\$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Other Cost Estimate**

\$0

\$0

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete

## EDL Cost Estimate Documentation Sheet

### Disclaimer

This form is designed to document the cost estimate for the referenced site in DOI's EDL report as required and defined by applicable federal accounting standards. Nothing on this form constitutes or should be construed as an admission of fact or the assertion, adoption, or concession of any legal, regulatory, financial, accounting, environmental, scientific or engineering position, projection or conclusion. Estimating future costs associated with the cleanup of environmental damage is fraught with uncertainty. The uncertainty may be high early in the cleanup process, but should decrease as site conditions are better understood. As such, the cleanup cost estimates presented at this time may not accurately reflect the actual cost required to achieve total cleanup. Moreover, the information on this form is strictly confidential and is protected by all applicable privileges.

Note: Work sheet tab 1 alone will be sufficient to document a site's cleanup cost estimate if the site does not consist of multiple sub-areas (e.g., operable units or other) or include several cleanup action alternatives. If the site consists of multiple sub-areas with different cleanup actions activities, a cost estimate will be developed for each sub-area. Tabs 2 and 3 can be used to document different sub-areas. The total cost estimate will combine the cost estimates of the sub-areas (tabs 1, 2, and 3).

Additionally, cost estimates can be developed for several response alternatives if the preferred alternative has not been determined and the estimator cannot assume the alternative that will be preferred. The individual sub-area sheets (tabs 1, 2, and 3) can be used to document individual response alternatives.

<b>1.</b>	<b>Date Completed</b>	<hr/>	
<b>2.</b>	<b>Current FY Quarter</b>	<hr/>	
<b>3.</b>	<b>Site Name</b>	<hr/>	
<b>4.</b>	<b>Sub-area or Alternative Name (if applicable)</b>	<hr/>	
<b>5.</b>	<b>Location / State</b>	<hr/>	
<b>6. a.</b>	<b>Estimator's Name</b>	<hr/>	
<b>b.</b>	<b>Estimator's Position</b>	<hr/>	
<b>c.</b>	<b>Estimator's Signature</b>	<hr/>	
<b>7. a.</b>	<b>Reviewer's / Approver's Name</b>	<hr/>	
<b>b.</b>	<b>Reviewer's / Approver's Position</b>	<hr/>	
<b>c.</b>	<b>Reviewer's / Approver's Signature</b>	<hr/>	
<b>8.</b>	<b>Site /Sub-area Type</b>	<b>Select Applicable</b>	<b>Date</b> <hr/> <b>Select Affected Media</b>
	Abandoned Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>	Air <input type="checkbox"/>
	Abandoned Oil, Gas or Fluid Well(s)	<input type="checkbox"/>	Soil <input type="checkbox"/>
	Active Mine/Mineral Processing Mill/ Tailings	<input type="checkbox"/>	Sediment <input type="checkbox"/>
	Active Oil, Gas or Fluid Well(s)	<input type="checkbox"/>	Groundwater <input type="checkbox"/>
	Acquired Federal Facility	<input type="checkbox"/>	Surface Water <input type="checkbox"/>
	Acquired Industrial Facility	<input type="checkbox"/>	
	Acquired Private Property	<input type="checkbox"/>	
	Agricultural / Dip Vats	<input type="checkbox"/>	
	Airfield	<input type="checkbox"/>	
	DOI Facility	<input type="checkbox"/>	
	Illegal Dumping / Burning of Hazardous Substances	<input type="checkbox"/>	
	Improper Disposal	<input type="checkbox"/>	
	Firing Range	<input type="checkbox"/>	
	Landfill/Dump	<input type="checkbox"/>	
	Leaking Aboveground Storage Tank(s)	<input type="checkbox"/>	
	Leaking Underground Storage Tank(s)	<input type="checkbox"/>	
	Mixed Federal Industrial Facility	<input type="checkbox"/>	
	Pipeline Leaks/Spills	<input type="checkbox"/>	
	Reserve or Treatment Pit	<input type="checkbox"/>	
	School / Buildings	<input type="checkbox"/>	
	Spills	<input type="checkbox"/>	
	Utilities	<input type="checkbox"/>	
	Other (specify below)	<input type="checkbox"/>	

9. Potential Primary Contaminants of Concern (select up to 4 contaminants) (pull down)

a.	
b.	
c.	
d.	

10. State The Problem (text format)

11. What stage in the cleanup action process is currently in progress? (check appropriate stage)

- a. Due care complete. Site/Sub-area identified as an EDL, but no other activity.
- b. Studies/investigations (specify, e.g., PA, RI, FS, CMS, etc.) \_\_\_\_\_
- c. Remedial / Removal Action or equivalent (includes design and construction)
- d. O&M (applicable after remedy has achieved cleanup action goals and determined operational and functional, or 1 year after construction [whichever is earlier] except for water treatment alternatives)
- e. LTM (long-term monitoring)

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

Note: Under CERCLA, groundwater and surface water treatment actions to restore water quality to a protected level is considered part of the remedial action for the 1st 10 years of operation, and O&M for any additional years.

12. Last cleanup action document approved by EPA, State, or Other

---

13. Is the total cleanup cost estimable at this time? (check appropriate)

Yes

No

14. If response to 13 is yes, go to 18. If no, proceed to 15.

15. Is any portion of the total cleanup cost (interim response activities) estimable at this time?

Yes

No

16. If response to 15 is yes, go to 18 then 21. If no, proceed to 17.

17. Provide the basis for no portion of the cleanup cost estimable at this time.

18. Select the Cost Estimating Method Used.

- IGCE
- Contractor Estimate
- RACER or Other Cost Model
- Professional Judgment / Based on Comparable Site Costs
- Other (specify below)

---

19. **Total Cleanup Cost Estimate: Specify the response alternative used for the basis of the total cleanup cost and complete the cost estimate buildup below.**

<b>Total Cleanup Cost Estimate Buildup</b>						
	<b>Work Element</b>	<b>Estimated Cost - Single Amount or Low End if Range (\$)</b>	<b>Estimated Cost - High End if Range (\$)</b>		<b>Bureau's Cost - Low End (\$) (calculated)</b>	<b>Bureau's Cost - High End (\$) (calculated)</b>
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0
(Add additional work elements as necessary)						
<b>Total Site / Sub-area Cleanup Cost Estimate</b>					\$0	\$0

20. **Total Cleanup Cost Estimate Buildup Assumptions by Work Element**

	<b>Work Element</b>	<b>Assumptions</b>
a.	0	
b.	0	
c.	0	
d.	0	
e.	0	
f.	0	
g.	0	

(Add additional work elements as necessary or separate work sheets)

Cost Estimate Documentation Complete



21. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Study						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Study Estimate** \$0 \$0

22. **Cost to Study Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

23. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Cost To Monitor						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Cost to Monitor Estimate** \$0 \$0

24. **Cost to Monitor Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

25. **Interim Cleanup Action Cost Estimate Buildup (use only if Total Cleanup Cost not Estimable)**

Other Interim Action Cost						
	Work Element	Estimated Cost - Single Amount or Low End if Range (\$)	Estimated Cost - High End if Range (\$)		Bureau's Cost - Low End (\$) (calculated)	Bureau's Cost - High End (\$) (calculated)
a.					\$0	\$0
b.					\$0	\$0
c.					\$0	\$0
d.					\$0	\$0
e.					\$0	\$0
f.					\$0	\$0
g.					\$0	\$0

(Add additional work elements as necessary)

**Other Cost Estimate**

\$0

\$0

26. **Other Interim Action Cost Estimate Buildup Assumptions by Work Element**

Work Element	Assumptions
a.	0
b.	0
c.	0
d.	0
e.	0
f.	0
g.	0

(Add additional work elements as necessary or separate work sheet)

Cost Estimate Documentation Complete

**Combined Sub-areas Cleanup or Interim Cleanup Action Cost Estimates**

Current FY Quarter	0	0
Site Name	0	

<b>Total Cleanup Cost Estimate</b>			
No.	Sub-area or Alternative Name	Total Cleanup Cost Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$) (calculated)	Bureau's Cost - High End if Range (\$) (calculated)
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
<b>Total Cleanup Cost Estimate</b>		\$0	\$0

**Interim Cleanup Action Cost Estimates**

<b>Cost To Study Estimate</b>			
No.	Sub-area Name	Cost To Study Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$) (calculated)	Bureau's Cost - High End if Range (\$) (calculated)
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
<b>Cost To Study Estimate</b>		\$0	\$0

<b>Cost To Monitor Estimate</b>			
No.	Sub-area Name	Cost To Monitor Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$) (calculated)	Bureau's Cost - High End if Range (\$) (calculated)
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
<b>Cost To Monitor Estimate</b>		\$0	\$0

<b>Other Interim Action Cost Estimate</b>			
No.	Sub-area Name	Other Interim Action Cost Estimate	
		Bureau's Cost - Single Amount or Low End if Range (\$) (calculated)	Bureau's Cost - High End if Range (\$) (calculated)
1.	0	\$0	\$0
2.	0	\$0	\$0
3.	0	\$0	\$0
<b>Other Interim Action Cost Estimate</b>		\$0	\$0

<b>Site Cleanup Cost Estimate</b>			
		Bureau's Cost - Single Amount or Low End if Range (\$) (calculated)	Bureau's Cost - High End if Range (\$) (calculated)

	\$0	\$0
--	-----	-----

## Work Elements

Preliminary Assessment =	Total Studies
Site Inspection =	Work Plan
Preliminary Assessment / Site Inspection =	PA
Potentially Responsible Party Activities =	SI
Remedial Investigation =	PA/SI
Feasibility Study =	PRP Activities
Remedial Investigation/Feasibility Study =	RI
RCRA Facility Investigation =	FS
Corrective Measures Study =	RI/FS
	RFI
	CMS
	Decision Document
Engineering Evaluation/Cost Analysis =	EE/CA

Total Remedial Action  
Total Removal Action  
Total Corrective Action  
Remedial Action  
Removal Action  
Corrective Action  
Planning/Design  
Construction  
1st 10 yrs GW or SW monitoring  
O&M

Total Monitoring  
Develop Plan  
Installing GW Wells  
Installing Piezometers  
Installing Other Monitoring Devices  
Sampling & Reporting

## Primary Contaminants of Concern

<b>Anions (general)</b>
Cyanide
Fluoride
<b>Polychlorinated Dibenzo-Dioxins/Furans (general)</b>
TCDD (2,3,7,8-Tetrachlorodibenzo-p-dioxin)
PeCDD (1,2,3,7,8-Pentachlorodibenzo-p-dioxin)
HxCDD (1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin)
HxCDD (1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin)
HxCDD (1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin)
HpCDD (1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin)
OCDD (1,2,3,4,6,7,8,9-Octochlorodibenzo-p-dioxin)
TCDF (2,3,7,8-Tetrachlorodibenzofuran)
PeCDF (1,2,3,7,8-Pentachlorodibenzofuran)
PeCDF (2,3,4,7,8-Pentachlorodibenzofuran)
HxCDF (1,2,3,6,7,8-Hexachlorodibenzofuran)
HxCDF (1,2,3,7,8,9-Hexachlorodibenzofuran)
HxCDF (1,2,3,4,7,8-Hexachlorodibenzofuran)
HxCDF (2,3,4,6,7,8-Hexachlorodibenzofuran)
HpCDF (1,2,3,4,6,7,8-Heptachlorodibenzofuran)
HpCDF (1,2,3,4,7,8,9-Heptachlorodibenzofuran)
OCDF (1,2,3,4,6,7,8,9-Octochlorodibenzofuran)
<b>Explosives (general)</b>
1,3,5-TNB (1,3,5-Trinitrobenzene)
1,3-DNB (1,3-Dinitrobenzene)
2,4,6-TNT (2,4,6-Trinitrotoluene)
HMX (Octahydro-1,2,5,7-tetranitro-1,3,5,7-tetrazocine)
RDX (Hexahydro-1,3,5-trinitro-1,3,5-triazine)
Tetryl (Methyl-2,4,6-trinitrophenylnitramine)
<b>Nitrobenzene</b>
4-Amino-2,6-dinitrotoluene
2-Amino-4,6-dinitrotoluene
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Nitrotoluene
3-Nitrotoluene
4-Nitrotoluene

### Reasons for No Cost Estimable

The presence of contamination is suspected but not confirmed  
 The type and extent of contamination has not been determined  
 The extent of contamination has not been determined

Site is unique. No similar site estimate or actual cost available.

## Primary Contaminants of Concern

<b>Metals (general)</b>
Aluminum
Antimony
Arsenic
Barium
Beryllium
Boron
Cadmium
Calcium
Chromium
Cobalt
Copper
Iron
Lead
Lithium
Magnesium
Manganese
Mercury
Molybdenum
Nickel
Potassium
Selenium
Silver
Sodium
Strontium
Thallium
Vanadium
Zinc
<b>Miscellaneous</b>
Ammonia
Ethanol
Formaldehyde
Isopropanol
Total Dissolved Solids
Total Organic Carbon
Total Suspended Solids
pH
<b>Polynuclear Aromatic Hydrocarbons (PAHs) (general)</b>
Acenaphthene
Acenaphthylene
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Chrysene
Dibenzo(a,h)anthracene
Fluoranthene
Fluorene
Indeno(1,2,3-c,d)pyrene
Naphthalene
Phenanthrene
Pyrene

## Primary Contaminants of Concern

<b>Polychlorinated Biphenyls (PCBs)</b> <b>(general)</b>
Arochlor 1016
Arochlor 1221
Arochlor 1232
Arochlor 1242
Arochlor 1248
Arochlor 1254
Arochlor 1260
<b>Pesticides (general)</b>
4,4'-DDD
4,4'-DDE
4,4'-DDT
Aldrin
alpha-BHC (alpha-HCH)
beta-BHC (beta-HCH)
Chlordane
delta-BHC
Dieldrin
Endosulfan I
Endosulfan II
Endosulfan sulfate
Endrin
Endrin aldehyde
Endrin ketone
gamma-BHC (Lindane)
Heptachlor
Heptachlor epoxide
Methoxychlor
Toxaphene
<b>Semivolatile Organic Compounds</b> <b>(SVOCs) (general)</b>
1,2,4-Trichlorobenzene
1,2-Dichlorobenzene
1,2-Diphenylhydrazine
1,3-Dichlorobenzene
1,4-Dichlorobenzene
1-Methylnaphthalene
2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2,4-Dinitrotoluene
2,6-Dinitrotoluene
2-Chloronaphthalene
2-Chlorophenol
2-Methylnaphthalene
2-Methylphenol
2-Nitroaniline
2-Nitrophenol
3,3'-Dichlorobenzidine
3-Nitroaniline
4,6-Dinitro-2-methylphenol
4-Bromophenylphenyl ether
4-Chloro-3-methylphenol
4-Chloroaniline



## Primary Contaminants of Concern

4-Chlorophenylphenyl ether
4-Methylphenol
4-Nitroaniline
4-Nitrophenol
Acenaphthene
Acenaphthylene
Aniline
Anthracene
Benzo(a)anthracene
Benzo(a)pyrene
Benzo(b)fluoranthene
Benzo(g,h,i)perylene
Benzo(k)fluoranthene
Benzoic acid
Benzyl alcohol
bis(2-Chloroethoxy)methane
bis(2-Chloroethyl)ether
bis(2-Chloroisopropyl)ether
bis(2-Ethylhexyl)phthalate
Butylbenzylphthalate
Carbazole
Chrysene
Di-n-butylphthalate
Di-n-octylphthalate
Dibenzo(a,h)anthracene
Dibenzofuran
Diethylphthalate
Dimethylphthalate
Fluoranthene
Fluorene
Hexachlorobenzene
Hexachlorobutadiene
Hexachlorocyclopentadiene
Phenanthrene
Indeno(1,2,3-c,d)pyrene
Isophorone
N-Nitroso-di-n-propylamine
N-Nitrosodimethylamine
N-Nitrosodiphenylamine
Naphthalene
Pentachlorophenol
Phenanthrene
Phenol
Pyrene
Pyridine
<b>Total Petroleum Hydrocarbons (TPH)</b>
<b>(general)</b>
Total Extractable Petroleum Hydrocarbon
Total Volatile Petroleum Hydrocarbon
Oil and Grease
<b>Volatile Organic Compounds (VOCs)</b>
<b>(general)</b>
1,1,1,2-Tetrachloroethane
1,1,1-Trichloroethane
1,1,2,2-Tetrachloroethane

## Primary Contaminants of Concern

1,1,2-Trichloro-1,2,2-trifluoroethane
1,1,2-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,1-Dichloropropene
1,2,3-Trichlorobenzene
1,2,3-Trichloropropane
1,2,4-Trimethylbenzene
1,2-Dibromo-3-chloropropane
1,2-Dibromoethane
1,2-Dichlorobenzene
1,2-Dichloroethane
1,2-Dichloroethene, total
1,2-Dichloropropane
1,3,5-Trimethylbenzene
1,3-Dichlorobenzene
1,3-Dichloropropane
1,4-Dichlorobenzene
2,2-Dichloropropane
2-Butanone
2-Chloroethylvinyl ether
2-Chlorotoluene
2-Hexanone
2-Pentanone
4-Chlorotoluene
4-Methyl-2-pentanone
Acetone
Benzene
Bromobenzene
Bromochloromethane
Bromodichloromethane
Bromoform
Bromomethane
Carbon disulfide
Carbon tetrachloride
Chlorobenzene
Chloroethane
Chloroform
Chloromethane
cis-1,2-Dichloroethene
cis-1,3-Dichloropropene
Dibromochloromethane
Dibromomethane
Dichlorodifluoromethane
Ethylbenzene
Isopropylbenzene
m-Xylene
Methyl -t-butyl ether
Methylene chloride
n-Butylbenzene
n-Propylbenzene
o-Xylene
p-Xylene
p-Isopropyltoluene
sec-Butylbenzene
Styrene
tert-Butylbenzene
Tetrachloroethene
Toluene

## Primary Contaminants of Concern

trans-1,2-Dichloroethene
trans-1,3-Dichloropropene
Trichloroethene
Trichlorofluoromethane
Vinyl acetate
Vinyl chloride
Xylene (total)
<b>Organophosphorus Herbicides / Pesticides (general)</b>
Trichlorofon
Famphur
Fenthion
Parathion
Coumaphos
Dimethoate
Dichlorvos
Dioxathion
Azinphos-methyl
Dichlorofenthion
Fensulfothion
Malathion
Fenitrothion
Dicrotophos
Thionazin (aka Zinophos)
Phosphamidon
Methyl parathion
Phorate
Disulfoton
Ronnel
Trichloronate
Diazinon
Chlorfenviphos
Ethion
Chlorothion
Hexamethylphosphoramide
Phosmet
Carbophenothion
Fonofos
Tetrachlorvinphos (aka Stirophos)
EPN
Chlorpyrifos
Aspon
Sulfotepp
Chlorpyrifos-methyl
Monocrotophos
Crotoxyphos
Phosdrin (aka Mevinphos)
Demeton
ENT 27318 (aka Ethoprop)
<b>Chlorinated Herbicides (general)</b>
Dinoseb
2,4-Dichlorophenoxyacetic acid (2,4-D)
Silvex (2,4,5-TP)
Trichlorophenoxyacetic acid (2,4,5-T)

## Primary Contaminants of Concern

<b>Solvent Extractable Nonvolatile Compounds</b>
Strychnine
<b>Radionuclides (general)</b>
Gross alpha
Gross beta
Gamma radiation
Tritium
Strontium-90
Radium-226/228
Uranium

## **Appendix D**

### **EDL Ranking Tool**

## EDL Ranking Tool

This ranking tool can be used by bureaus that do not have a ranking process in place or can be modified to meet bureau specific requirements with the Department's approval. This ranking tool pertains to sites that are already identified as an EDL. Sites that are Locations of Concern (LOC) are not to be included. Based on the total score that each site receives, the sites will then be ranked Priority 1, 2, or 3. Sites falling within the 61-100 range are Priority 1. Sites that fall within the 21-60 range are Priority 2. Sites that fall within the 0-20 range are Priority 3.

No.	Ranking Criteria	Yes/No	Score
1	Is the site within ¼ mile of residences or a school; or is the site heavily visited by visitors? (10)		
2	Does the contaminate pose a significant threat to a surface water body or direct access a groundwater aquifer used for drinking water? (10)		
3	Is the site threatened by a contaminate known to be a carcinogenic or toxic substance? (15)		
4	Is there evidence or reason to believe that contamination is migrating or may migrate off bureau-controlled land? (10)		
5	Can the contamination be cleaned up in a single field effort? (8)		
6	Is the site on EPA's National Priorities list? (10)		
7	Is the site on the Federal Agency Hazardous Waste Compliance Docket (Federal Docket)? (6)		
8	Is the cleanup of the site a State priority? (6)		
9	Is the cleanup of the site a bureau priority? (5)		
10	Are interagency agreements, settlement agreements, or other legally-binding documents; a court decision; or administrative order for cleanup actions on bureau-controlled land in place? (15)		
11	Is cleanup (including study) actively underway? (5)		
		<b>Total score:</b>	