

## **Checklist for the Development of Detailed Remediation Cost Estimates for Remediation Funding Sources**

This checklist is intended to be used as a tool in developing a detailed remediation cost estimate for the purposes of establishing and maintaining a remediation funding source. It is not required to be submitted to the Department. The detailed remediation cost estimate is required to report the estimated cost to **complete** the remediation. As such, all remediation phases, through issuance of a final remediation document, must be represented for all areas of concern. In addition, costs associated with operation, maintenance, and inspection must be incorporated into the estimate until Financial Assurance has been established with a remedial action permit or it has been documented that an engineering control will not be incorporated in the final remedial action. The detailed remediation cost estimate shall also include the Department's fees and oversight costs.

The checklist is broken into remediation phases from preliminary assessment through remedial action, with additional categories that may apply. Not all remediation-related activities or phases will be applicable to each remediation (e.g., Ecological Risk Assessment, Direct Oversight, Immediate Environmental Concerns, etc.). Additional site specific remediation costs, not listed in this checklist, may be applicable and should still be represented in the detailed remediation cost estimate, if appropriate.

When preparing the detailed remediation cost estimate, the Department recommends each media investigation be represented with the associated costs in each remediation phase. Attached to this checklist is an "Example Detailed Cost Estimate Worksheet."

Upon completion of a detailed remediation cost estimate, the total estimated site-specific dollar value is reflected on the "Remediation Cost Review and RFS-FA Form" and the detailed remediation cost estimate is provided as supporting documentation.

### **General/Miscellaneous Costs**

- Project Coordination and Management
- Legal Costs Directly Supporting the Remediation
- Public Notice

### **Department Fees and Costs (1 Year – as applicable)**

- Annual Remediation Fee
- Initial Remedial Action Permit Fee
- Annual 1% RFS Surcharge Fee
- Traditional Oversight Cost
- Annual Direct Oversight Costs

### **Preliminary Assessment (PA)**

- Total Cost of PA
  - File Review
  - Site Visit
  - Data gathering
  - PA Form/Report Preparation

## Site Investigation

- Quality Assurance Project Plan (QAPP) development
- Soil, Ground Water, Sediment, Surface Water and Vapor Intrusion Investigations (includes, but not limited to) cost associated with:
  - Access
  - Mobilization
  - Field Parameters
  - Sample Collection
  - Surveying
  - Waste Handling/Disposal Cost
- Total Analytical Costs
- Receptor Evaluation
- Site Investigation Reporting (costs associated with but not limited to):
  - Evaluation of Investigation Results
  - Form and Document Preparation
  - Preparation of Maps, Figures, Tables
  - Electronic Data Submission/Geographic Information System (GIS) Submission
  - Data Validation

## Remedial Investigation

- Quality Assurance Project Plan (QAPP) Development
- Soil, Ground Water, Sediment, Surface Water, and Vapor Intrusion Investigation (includes, but not limited to) costs associated with:
  - Access
  - Mobilization
  - Field Parameters
  - Sample Collection
  - Surveying
  - Waste Handling/Disposal Cost
- Interim Remedial Measures
- Receptor Evaluation Update
- Ecological Risk Assessment
- Total Analytical Costs
- Development of Site Specific Standards/Criteria
- Remedial Investigation Reporting (costs associated with but not limited to):
  - Compilation and Evaluation of Investigation Results
  - Contaminant Modeling
  - Form and Document Preparation
  - Preparation of Maps, Figures, Tables
  - Preparation of Classification Exception Area (CEA)
  - Electronic Data Submission/GIS Submission
  - Data Validation

## Remedial Action Workplan

- Remedial Design Activities (Pilot Study/Bench Study) associated with remedial action selection
- Preparation/Obtaining a Discharge to Ground Water Permit by Rule Authorization Request
- Preparation/Obtaining NJDEP Land Use Permits
- Preparation/Obtaining NJDEP Air Permits
- Preparation/Obtaining Other Federal, State and/or Local Permits, Permit Modifications or Certifications
- Remedial Action Workplan (costs associated with but not limited to):
  - Compilation and Evaluation of Remedial Action Selection Results
  - Form and Document Preparation
  - Preparation of Maps, Figures, Tables

## Remedial Action

- Soil, Ground Water, Sediment, Surface Water and Vapor Intrusion Implementation of Selected Remedy(ies) (includes, but not limited to) costs associated with:
  - Access
  - Mobilization
  - Construction, Excavation, Backfill, Injection, etc.
  - Land Purchase and/or Relocation Expenses
  - System Start Up and Testing
  - Performance Monitoring/Sampling
  - Waste Handling/Disposal
  - Survey
- Engineering Control(s) – Soil/Ground Water
  - Access
  - Mobilization
  - Construction/Installation
  - Land Purchase and/or Relocation Expenses
  - Performance Monitoring/Sampling
  - Waste Handling/Disposal
  - Survey
- Receptor Evaluation Update
- Remedial Action Report (costs associated with but not limited to):
  - Compilation and Evaluation of Remedial Action Sampling Results
  - Form and Document Preparation
  - Preparation of Maps, Figures, Tables
  - Preparation/Filing Deed Notice
  - Remedial Action Permit(s) Preparation
  - Electronic Data Submission/GIS Submission
  - Data Validation

## Final Remediation Document

- Preparation and Issuance/Submission of Final Remediation Document

## **Operation, Maintenance and Inspection of Engineering Controls**

### **Media: SOIL**

- Cost to Operate and Maintain Engineering Controls (includes, but not limited to):
  - Periodic Cap Repair (paving, new clean fill, etc.) and/or Fence Maintenance/Repair etc.
- Inspection of Engineering Controls
- Preparation of Biennial Certification and DEP Forms

### **Media: GROUND WATER**

- Cost to Operate and Maintain Engineering Controls (includes, but not limited to):
  - Sampling & Analysis
  - Treatment System Maintenance Cost (including permits, utilities, disposal, etc.)
  - Public Owned Treatment Works fees
- Inspection of Engineering Controls
- Vapor Intrusion Systems – Operation, Maintenance, and Inspection
- Preparation of Biennial Certification and DEP Forms
- Remedial System Shut Down, Decommissioning, and Monitoring Well Abandonment

### **Immediate Environmental Concern (IEC) – If Applicable**

- Initial Notification
- Interim Response Action
- Engineered System Response Action
- Source Control
- Monitoring and Maintenance

### **Vapor Concern (VC) – If Applicable**

- Notification
- VC Mitigation Plan
- VC Mitigation Response Action

### **Light Non-Aqueous Phase Liquids (LNAPL) – If Applicable**

- 60-Day LNAPL Reporting
- Cost Associated with Selecting and Implementing Interim Remedial Measure (IRM)
- 1-Year LNAPL IRM Report with Form

### **Direct Oversight (Pursuant to N.J.A.C. 7:26C-14) – If Applicable**

- Implementation of Public Participation Plan
- Feasibility Study (costs associated with conducting study and preparing report)