



PRELIMINARY ASSESSMENT TECHNICAL GUIDANCE

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PRELIMINARY ASSESSMENT GUIDANCE

PURPOSE

- To provide investigators with resources and a framework on how to conduct a Preliminary Assessment.
- Goal of a Preliminary Assessment is to identify Potential Areas of Concern (AOCs)





PRELIMINARY ASSESSMENT DATA GATHERING CHECKLIST

- Appendix B of the guidance includes a checklist which can be used as an outline for data gathering.
- Meant to serve as a tool to ensure that all the required data gathering/diligent inquiry had been completed for the preliminary assessment.
- The checklist is not required for submission to the Department.





PRELIMINARY ASSESSMENT DATA GATHERING

- Data gathering activities should include diligent inquiry into the operational and ownership history from the time the site was naturally vegetated (before development) to present.
- Using multiple lines of evidence
- GOAL = to identify Areas of Concern (AOCs)





INFORMATION SOURCES FOR DATA GATHERING

- Tax Records
- Deeds
- Historical Chain of Title
- Industrial Directories
- Local Health, Building and Fire Department records
- Historical Societies
- Site/RP Documents
- Interviews
 - Site Personnel
 - Others knowledgeable in site history/operations
- Sanborn Maps
- Aerial Photographs
- DEP OPRA
- DEP GIS





HISTORICAL SITE OPERATIONS

- Determine historical operations conducted by past owners and operators.
 - Interviews
 - Facility files and drawings
 - Publically available historical documentation
- Determine historical use of hazardous materials and there locations
- Identify historical AOCs





CURRENT SITE OPERATIONS

- Evaluate current operations to determine potential AOCs
- Accomplished through:
 - Site Inspections
 - Interviews
 - Review of facility documentation
 - Review of facility drawings and plans





AERIAL PHOTOGRAPH REVIEW

- Storage, accumulation and disturbed open areas
- Buildings, structures, and appurtenances
- Pits, ponds, ditches and lagoons
- Areas of stressed vegetation
- Transportation-related features





AERIAL PHOTOGRAPH REVIEW

- Identify evidence of former disturbance:
 - pavement patches
 - linear features in soil
 - pavement footprints of former structures
- Identify potentially relevant features off-site:
 - waterfront filling
 - dredging
 - activities that may have an impact on the site.





AERIAL PHOTOGRAPH REVIEW

- Emphasis should be to describe the property in question and any evidence of environmental indicators on the subject property.
- DEP Tidelands Management- Air Photo Library
609-292-2573
- Optimal viewing is conducted through the use of stereo pairs with a stereo scope.





SANBORN MAP REVIEW

- If Sanborn Maps are available:
 - Determine historical site ownership, operations, and potential areas of concern
 - Building construction/site features such as:
 - production wells
 - underground and aboveground storage tanks
 - production areas and storage areas which can assist in the identification of historical areas of concern





HAZARDOUS SUBSTANCES AND WASTES

- Identify current and historical use, generation and storage of hazardous materials, substances and waste
- Important for identification of potential AOCs.





WASTEWATER DISCHARGE HISTORY

- Identify all current and historical wastewater discharges and disposal points of:
 - Sanitary and industrial waste
 - Sanitary and industrial sludge





RADIOACTIVE MATERIALS

Pursuant to N.J.A.C.7:26C-2.3(a)3i(4), **Department oversight** is required if the site is suspected or known to be contaminated with anthropogenic radionuclide contamination of any media.





ENVIRONMENTAL PERMITS & ENFORCEMENT ACTIONS

- Identify historical and current federal, state and local environmental permits
- Identify historical and current enforcement actions including but not limited to:
 - Notice of Violations (local, state, federal environmental laws)
 - Court orders, and official notices or directives





FILL MATERIAL, DUMPS AND LANDFILLS

- Determine the presence or potential presence of historic fill material.
- Determine the presence or potential presence of on-site permitted or non-permitted landfills, waste disposal areas and/or dump areas.





PROTECTIVENESS OF PAST REMEDIES

- Identify and evaluate all remedies previously implemented at the site
- Determine if the remedy remains protective of public health, safety and the environment





ORDER OF MAGNITUDE ANALYSIS

- Evaluate each area of concern identified at the site for which a final remediation document was filed or issued
- Evaluate contaminant concentrations remaining in the area of concern with the applicable remediation standards at the time of the comparison.
- $> 10x$ current standard, further remediation required.





PRELIMINARY ASSESSMENT SITE INSPECTION

- Must be conducted to verify observable and current site conditions
- Several inspections may be necessary depending on the size and history of the site
- Interviews are often conducted during the Site Inspections





POTENTIAL AREAS OF CONCERN

- Develop a list of all potential AOCs and determine if:
 - Area requires investigation and/or remediation, or
 - Area does not warrant further investigation and/or remediation
- Document the Rational for the determination





PRELIMINARY ASSESSMENT REPORT

- A PA Report is different from an ASTM Phase I
- Clear recommendations for each area of concern identified
- Should provide adequate backup to support the conclusions





PRELIMINARY ASSESSMENT REPORT

Include:

- Summary of historical/current operations
- Summary of historical/current operators
- Summary of hazardous materials, substances and wastes
- Summary of wastewater and sludge discharges
- Summary of Environmental Permits
- Summary of discharges and violations at the site





PRELIMINARY ASSESSMENT REPORT

Include:

- Scaled site plans of the entire property
- Current and historical structures
- Areas where fill has been brought onsite
- Vegetated, paved and unpaved areas
- All areas of concern
- Active and inactive wells.





NARRATIVES

Discuss:

- What –did you observe
- When- was/is this present on site
- Where – was/is it located
- Why – this is, or is not a concern
- How – will this be addressed





APPENDIX A

- Appendix A contains useful information on topics such as:
 - Diligent inquiry (PA versus Phase 1)
 - Fill Material and Historic fill
 - Underground storage tanks
 - Electrical Transformers
 - Rail road line, spurs and sidings
 - ISRA
 - Radioactive materials





QUESTIONS ??????

