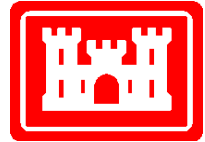

FINAL



Technical Project Planning (TPP) Memorandum of the Seal Island Gunnery Range

Prepared Under: **Contract No. W912DY-04-D-0017**
Delivery Order # 00170001

Prepared for:

U.S. Army Engineering and Support Center, Huntsville

**4280 University Square
Huntsville, AL 35807**

and

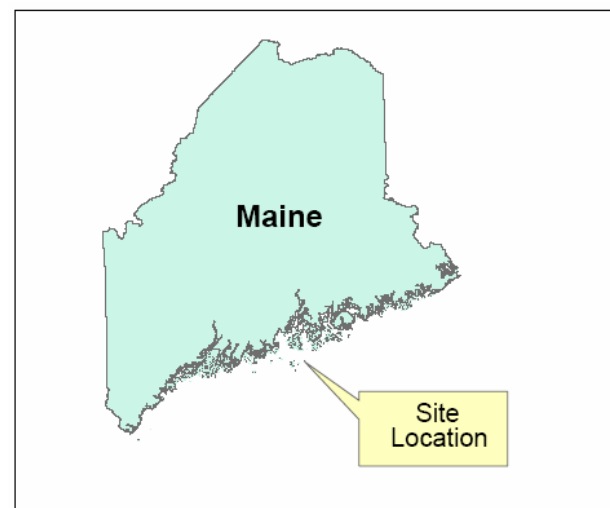
U.S. Army Corps of Engineers, Baltimore District

**City Crescent Building
10 South Howard Street, 10th Floor
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Prepared by:

Alion Science and Technology

**1000 Park Forty Plaza
Suite 200 Durham, North Carolina 27713**



April 2006

TECHNICAL PROJECT PLANNING (TPP) MEMORANDUM

MILITARY MUNITIONS RESPONSE PROGRAM (MMRP) SITE INSPECTION (SI) OF

SEAL ISLAND

FOR FORMERLY USED DEFENSE SITES (FUDS) DERP-FUDS PROJECT NUMBER D01ME003200

MEETING MINUTES

DATE: 9 February 2006

LOCATION: Portland, Maine,

TOPIC: Technical Project Planning (TPP) Meeting #1 for Seal Island

TITLE OF PROGRAM: Military Munitions Response Program (MMRP)

CONTRACT: W912DY-04-D-0017; Delivery Order # 00170001

DIRECTIVE AGENCY: US Army Corps of Engineers (USACE)-New England District, Sheila Holt

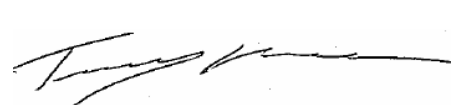
CO-CHAIRPERSONS/FACILITATOR: Alion Team Project Manager, Roger Azar

NOTE: *This TPP Memorandum is a record of the discussions that took place on the above referenced date about said site. Signature of this TPP Memorandum does **not** signify agreement with any or all items, only that this is an accurate record of what was discussed.*

Sheila Holt, USACE-New England District



Iver McLeod, ME DEP (Project Manager)



Roger Azar, Alion Team (Program Manager)

Timothy Reese, Alion Team (Lead Project Manager)

Charles Blair, US Fish and Wildlife

NOTE: An US Environmental Protection Agency (EPA) representative was not present at the TPP meeting and therefore there is no signature line for the EPA

Introduction

This TPP Memorandum details the events of the Seal Island, Maine Site Inspection (SI) TPP meeting held at the Maine Department of Environmental Protection office in Portland, Maine on 9 February 2006. Participants of the meeting included representatives from the USACE (New England and Baltimore Districts), U.S. Fish and Wildlife Service (FWS), the Maine Department of Environmental Protection (MEDEP), the Maine Department of Marine Resources (ME DMR) and the Alion Team (see attendance list). This TPP Memorandum describes the purpose and objectives of the TPP, the meeting attendees, the materials and documentation discussed/reviewed during the TPP, the list of handouts, other TPP documentation, changes/deletions/modifications to the TPP material, and discussion items.

TPP Purpose and Objectives

The purpose of the TPP meeting was to provide the property owner(s), state regulators, and other interested parties/stakeholders with an understanding of the Formerly Used Defense Site (FUDS) program, an overview of the TPP process, and the necessary steps to complete the SI at the Seal Island site.

Objectives include the following:

- Present the proposed sampling plan to the property owner, state regulators, and other interested parties/stakeholders.
- Obtain feedback on the proposed plan and other site specific information from the property owner, state regulators, and other interested parties/stakeholders.
- Determine action items for the path forward.

Attendance List

<u>Name</u>	<u>Organization</u>	<u>Project Role</u>	<u>Phone Number</u>	<u>Email Address</u>
Robert Williams	USACE-Baltimore	Program Manager	410-962-4006	Robert.j.williams@nab02.usace.army.mil
Sheila Holt	USACE- NAE	Project Manager	978-318-8174	Sheila.d.holt@nae02.usace.army.mil
Bill Holtham	USACE-NAE	FUDS Program Manager	978-318-8670	William.j.holtham@usace.army.mil
Bob Davis	USACE-NAE	Environmental Resource Specialist	978-318-8236	Robert.w.davis@usace.army.mil
Carol Ann Charette	USACE- NAE	Chief Env Eng Section	978-318-8605	Carol.a.charette@usace.army.mil

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<u>Name</u>	<u>Organization</u>	<u>Project Role</u>	<u>Phone Number</u>	<u>Email Address</u>
Charles Blair	US FWS	Refuge Manager	207-236-6970 x 12	Charles_blair@FWS.gov
Brian Benedict	US FWS	Deputy Manager	207-236-6970	brian_benedict@fws.gov
Ted Wolfe	ME DEP	Program Manager	207-287-8552	Theodore.e.wolfe@maine.gov
Iver McLeod	ME DEP	Project Manager	207-287-8010	iver.j.mcleod@maine.gov
Brian Swan	Maine DMR	Environmental Coordinator	207-236-6970	Brian_swan@maine.gov
Roger Azar	Alion Team	Program Manager	301-399-7304	razar@alionscience.com
Ivy Able	Alion Team	Task Manager	410-771-4950	iable@eaest.com
Jane Connet	Alion Team	Assistant Project Manager	508-485-2982 x206	JC3@eaest.com
Timothy Reese	Alion Team	Project Manager	410-538-8202 ext. 101	TReese@eaest.com
Corinne Shia	Alion Team	Project Manager	703-217-3810	cshia@alionscience.com

Materials and Documentation Discussed/Reviewed During TPP

The following documents were discussed during the TPP in order to provide the attendees with a familiarity of the site, an understanding for the basis of the TPP, and the source of background information:

- 1988 Inventory Project Report (INPR)
- 2003 Archive Search Report (ASR)
- 2004 Supplemental ASR
- 2005 programmatic work plan entitled “Final Programmatic Work Plan for Formerly Used Defense Sites (FUDS) Military Munitions Response Program (MMRP) Site Inspections at Multiple Sites in the Northeast Region”
- 2005 Aerial Photographs of Seal Island presented by the US Fish and Wildlife

Handouts

The following handouts were distributed to the attendees of the TPP meeting for discussion and are included as attachments to this TPP Memorandum:

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- Agenda for TPP (Attachment 1)
- Acronyms and Abbreviations (Attachment 2)
- Overview of TPP guidance from EM 200-1-2 (Attachment 3)
- Slide presentation (Attachment 4)
- Data Quality Objective (DQO) tables (Attachment 5)
- TPP Phase I Memorandum for Record (MFR) Worksheet (Attachment 6)
- Draft Conceptual Site Model (CSM) (Attachment 7)
- Draft Map (11 x 17") of Proposed Sampling Locations (Attachment 8)
- Evaluation of the TPP Facilitated Session (Attachment 9)
- Revised Schedule (Attachment 10)

The Agenda set the stage for the meeting and was followed as provided. The List of Acronyms and Abbreviations was provided to attendees as well as a general TPP overview handout taken from EM 200-1-2 for reference purposes. A copy of the slide presentation prepared and presented by the Alion Team was provided to the attendees to allow them to follow along and take notes. Charts of DQOs, the draft site-specific CSM, and a draft map of the proposed sampling locations were also distributed. The TPP Phase I MFR Worksheet was filled out with participation and input from the stakeholders. At the conclusion of the TPP meeting the SI schedule was reviewed, and an evaluation sheet was distributed for attendees to provide feedback on the TPP process and meeting.

Changes/Deletions/Modifications

The most significant change was an agreement among all parties to accelerate the schedule to potentially enable the Alion Team to conduct sampling in early April 2006. The site must be closed between May and August (due to breeding seasons for migratory birds and marine mammals). If the work plan and permit activities can be accelerated, the other major potential constraint will be weather. Seal Island is only accessible by boat and rough seas can severely affect the transport to and from the island. Team members visiting the island to perform field work must be prepared to stay over for the night if inclement weather does not allow for a boat return to main land.

Some sampling locations were modified as a result of discussion with the stakeholders at this TPP. A more detailed description of the modifications to the sampling locations is provided below in the discussion items.

Discussion Items

Mr. Roger Azar, the Program Manager for the Alion Team gave the presentation (TPP Memorandum Attachment 4) and led the discussions that arose throughout.

The following is a breakdown of the major discussion topics associated with Seal Island:

Overview of MMRP/SI- Mr. Roger Azar provided an overview of the MMRP and the SI to be conducted. USACE must complete SIs for over 700 sites by FY 2010. Mr. Azar mentioned that the duration for the SI for Seal Island is approximately 18 months (including review and approval of Site-Specific Annex work plan), and that Alion was about 6-7 months into the process. It was emphasized that the SI is not a full scale study of nature and extent. The SI focuses on areas historically identified as having been used for ordnance activities and is limited to a surface inspection only for munitions and explosives of concern (MEC) along with sampling in the most likely areas for residual munitions constituents (MC). The primary objective of the SI is to determine if the site is to be recommended for No Department of Defense Action Indicated (NDAI) or if further work and investigation is required at the site. An emergency response (if there is just one or a few items) or a Time-Critical Removal Action (TCRA- if there are multiple items) can be conducted at any time throughout the program.

Overview of TPP Process- The purpose and objective for the TPP meeting was discussed. A key aspect of any TPP is the opportunity for all stakeholders to communicate their needs or concerns. At the beginning of the meeting each attendee was asked to introduce themselves and identify the agency or group they represent.

Potential Stakeholders - Other potential stakeholders were discussed. EPA will be kept informed of the process but is not expected to be an active participant unless the site goes beyond the SI stage. A question was raised about Marine Fisheries and whether local fishermen and lobstermen needed to be represented. It was discussed that local fishermen and lobstermen are aware of the MEC issues on Seal Island and potentially surrounding waters. ME DMR would be taking the lead in ensuring that the fishermen and lobstermen are informed. The FWS indicated that they have new hazard signs on order and will be installing them in the near future.

Eligibility of Tidal Waters - The majority of the FUDS acreage, as indicated in the Supplemental ASR, is over oceanic waters. Although Seal Island has been cleared several times, new items occasionally surface up on its shoreline as a result of winter storm wave action. Mr. Benedict indicated the tidal fluctuation at the site is about 12 ft, and the intertidal zone is generally topographically very steep. Mr. Wolf described an incident in 2003 where 5 “live” rounds had been washed up. In 2001, the State Police came out and identified the MEC. (The Brunswick Naval Air Station “bomb squad” had been disbanded and not available. A piece of MEC thrown overboard broke and released yellow material). Mr. Reese asked if there was more information (trip report, files etc, or pictures of the 8 in. round) on the incident. Mr. Benedict thought that everything was included in the ASR. Mr. Reese relayed that there was no picture of the 8 inch round in the ASR. Mr. Benedict agreed to try and locate these pictures for the Alion Team.

Mr. Wolfe inquired as to how the MEC would be addressed in tidal waters. Mr. Holtham explained that oceanic waters where military munitions are more than 100 yards seaward of the mean high-tide point are not eligible under DERP FUDS and therefore are not part of this SI. A viable approach to address these areas could involve institutional controls – informing and educating the public on the procedures to be followed when MEC is discovered. Mr. Holtham explained that in a situation where ordnance is discovered, the COE should be contacted

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immediately and the COE will address the issue at hand. Mr. Wolfe inquired about DoD availability to provide MEC assistance to the FWS in the future. Mr. Holtham explained that although the extent of DoD involvement will be determined on a case by case basis, DoD will provide assistance when necessary (i.e. live MEC washes ashore). Mr. Benedict indicated that local fishermen are generally aware that there is a no – anchor zone surrounding the island. Mr. Azar noted that at the end of the SI process, the SI report could potentially cite institutional controls as an appropriate measure, and recommend a community information/education program.

Action Item:

- Mr. Benedict will check files to see if there are any pictures or possibly a presentation that includes pictures of the 8 in. round. If such information is present, Mr. Benedict will forward the information to the Alion Team.

Current and Future Land Use - Mr. Blair noted that the current use of the site is a wildlife refuge. Only summer researchers and FWS personnel access the site. Moreover, he mentioned that the Fish and Wildlife Service welcomes the SI and plans to fully cooperate and assist in any manner possible. However, FWS has two primary concerns: protecting the birds and protecting their habitat. Along with the puffins and other migratory birds that nest on the island, 800 pair of Leach's storm petrels nest in the soil, annually. The petrels go to the same burrow each year, and any excavation or compaction of soil must be minimized in these areas.

Mr. Holtham asked if it was the intention of the US Fish and Wildlife to open the island up to the public. Mr. Blair indicated that could be an option if Seal Island was deemed safe for public access by the DoD. Mr. Holtham said he did not think the Explosives Safety Board would ever certify it as safe, even if there were a high probability that it was. Mr. Blair indicated that without a certification, Seal Island would not be opened to the public.

Permit Requirements and Summary of SI Activities - A Compatibility Determination made in accordance with the 1997 Wildlife Refuge System Improvement Act must be approved before any work is conducted on the island: Once they understand exactly what will be done, FWS will issue a special use permit, which can be done relatively in an expedited manner. There is a 14 day public comment period. Mr. Azar asked if the permitting process could be started immediately, if the required information is provided to FWS. Mr. Blair indicated that for the FWS to start the special use permit process, he would need from Alion a summary of the field activities and from MEDEP a letter explaining their involvement in the Seal Island SI process. Mr. Blair indicated that he will need a letter stating Mr. McLeod will be reviewing and commenting on the work plan to prevent delays in the permitting process. Mr. Azar and Mr. McLeod agreed to provide Mr. Blair with the requested information.

The SI activities will involve the use of hand-held analog geophysics equipment for MEC, and collection of surface soil (0-2"), surface water, and sediment samples for MC. Mr. Blair said he needed to know, the time of year, the study plan, the technology and process to be used, and how many people would be involved in the field work. It would be critical to have FWS accompany

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the team to provide transportation, ensure the team follows the correct paths, stays on trails and rock, and does not interfere with the petrel burrow areas. According to the FWS the ideal time to access the island for field work is during the months of August, September, and October. Typically the seas are calmest in October. May is the worst time because of nesting. There is a small window of time in March and early April before nesting begins, but the weather is less certain and it could be difficult to access the island. The team must be prepared to wait for good weather, to camp out on tent platforms, use a small unheated cabin for cooking and gathering, and stay at the island in the event weather conditions do not allow for a safe return to the main land. There is no regular access by helicopter.

Mr. Azar inquired if there were any other times to conduct field work because the project needed to be completed in accordance with a contract schedule and Alion had hoped to sample in May. Mr. Azar indicated his intention to keep the field team to a minimum: one UXO technician and one environmental technician.

Mr. Blair indicated that April 1 through April 15th would be possible. It was agreed that FWS would provide transportation and accompany the field team. It takes anywhere from 1 to 3 hours to get to the island, depending on the weather. Regular camping gear, including a small butane heater would be ok. The team would carry personal gear, geophysical equipment, GPS equipment, sampling equipment, and a cooler with dry ice for sample preservation.

FWS and the regulators agreed to expedite the processes to try and sample in April. Mr. Holtham noted that if for some reason the sampling could not occur in April and had to be postponed until September, then he would certainly consider that justification for an extension to the contract schedule.

Action Items:

- The Alion Team will prepare a summary of the field activities to be completed on Seal Island as part of the SI and forward it to Mr. Blair as soon as possible. (*Completed 2/14/06*)
- Mr. Blair will begin the process required to obtain a special use permit for the SI activities on Seal Island.
- Ms. Holt will coordinate with USACE Real Estate and Mr. Blair to expedite the right of entry process.
- Mr. McLeod will provide Mr. Blair with a letter explaining that he will be reviewing and commenting on the Seal Island Work Plan. (*Completed 2/10/06*)

Sample Locations – Mr. Azar reviewed the proposed sampling locations. According to a recent aerial three water bodies were observed on Seal Island and thus the Alion Team proposed three surface water samples. Mr. Blair explained that there is only one water body on the island which is referred to as a kettle hole and exists year round. The other two are transient depending on precipitation and tidal waters. The kettle hole is surrounded by granite. Mr. Azar proposed surface water and sediment samples be collected from the kettle hole. The remaining samples will be surface soil samples dispersed throughout the grassy areas on the island. Mr. Azar, with

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the help of Mr. Blair and Mr. Benedict, moved several soil samples to more appropriate locations, considering topography, geology, and the locations of MEC related discoveries. It was confirmed that one surface water, one sediment, and ten soil samples will be collected on Seal Island.

Three background samples will be collected during the SI. The location of these background samples was discussed. It was agreed that a nearby island with similar geology, soil, and habitat, (and which was not used as a bombing range) would be ideal. Considering the entire island had been used as a bombing range, it was agreed that adequate background samples could not be collected on Seal Island. Wooden Ball Island, Matinicus Rock, and Little Spoon Island were considered. Wooden Ball is privately owned, Matinicus is being used by the USCG in part, and Little Spoon is unoccupied. After discussion of the advantages and disadvantages of each island, and the given time constraints, it was decided that Little Spoon Island was the best choice for background samples since it is controlled by FWS and could be accessed under the same special use permit used for Seal Island. Mr. Azar requested that the special use permit include several potentially acceptable islands to allow for flexibility, and Mr. Blair agreed.

Action Items:

- The Alion Team will revise the sampling map to reflect the samples agreed upon during the TPP meeting and include a copy of this in the Draft Site-Specific Work Plan.
- Mr. Blair will obtain a special use permit that allows for flexibility in obtaining background samples from either Little Spoon Island or Matinicus Rock Island.

Chemical Specific Data Quality Objectives (DQOs) - Mr. Azar reviewed the DQO's with the stakeholders. EPA region IX values and the MEDEP values will be used to develop the sample screening criteria for the SI. Mr. McLeod asked if the soil values would be used to assess sediment; Mr. Azar indicated that they would. Mr. Wolfe and Mr. McLeod asked how the analytes were selected and if they encompassed MC resulting from live munitions and/or rocket fuel. Mr. Azar explained that by reviewing the historical information and considering the potential MEC used on Seal Island, it was determined that TAL metals and the full suite of explosives will sufficiently screen for the presence of MC. Mr. Azar mentioned the majority of MEC that was used on the island was for practice purposes. Mr. Wolfe explained that if, as was reported in the ASR, explosions had occurred from a fire on the island this would indicate that live munitions were used at Seal Island. Mr. Holtham explained that the "explosions" that were reported by firefighters are somewhat vague and difficult to use as an indication of what was on the island. Unless someone from the EOD community who was familiar with the large array of munitions witnessed the explosions, it is hard to assess whether the explosions that actually occurred during the burning period were related to live munitions or other munition-related components. Mr. Holtham agreed to send a memo to USACE - Huntsville inquiring as to studies that have been conducted concerning the effects of wildfires on buried munitions.

Action Item:

- Mr. Holtham will send a memo to USACE - Huntsville inquiring about the effects of wildfires on buried munitions.

Schedule - The schedule will be revised and updated per meeting discussions. The next step will be issuance of a TPP Memorandum for review and concurrence. Within a week after the TPP is approved, the Alion Team will issue the Site-Specific Work Plan for stakeholder review. The stakeholders/regulators agreed to review and comment on the Work Plan within a two week period, and will try to complete the review in one week. Comments will be forwarded to Ms. Holt and copied to USACE Baltimore.

Action Item:

- Revise schedule based on discussions at the TPP Meeting. (*Completed 2/16/06 – Revised Schedule is included as Attachment 10*)

Points of Contact - Ms. Holt will be the key POC for USACE-New England District. Mr. Williams is the contact for USACE- Baltimore. Mr. McLeod will be the key POC for MEDEP. Mr. Blair will be the contact for US FWS.

Path Forward

- Meeting participants will review and comments on the TPP Memorandum; Alion will revise as necessary.
- Meeting members will sign the TPP Memorandum as an accurate record of what was discussed at the meeting. Alion will then finalize the TPP Memorandum.
- The Alion Team will complete the Draft Site-Specific Annex Work Plan for Seal Island and submit it to USACE and stakeholders one week after the TPP Memorandum has been finalized.

ATTACHMENTS

(Meeting Handouts and Other TPP Documentation)

ATTACHMENT 1

AGENDA

February 9, 2006

TECHNICAL PROJECT PLANNING (TPP) MEETING FOR THE MILITARY MUNITIONS RESPONSE PROGRAM (MMRP) SITE INSPECTION (SI) OF

SEAL ISLAND

- 1. Introductions** – *Name, Organization, & Role on the Project*
- 2. MMRP & SI Overview** - *SI collects the minimum amount of information necessary to meet the objective (determination if further action is necessary for the site)*
- 3. Overview of the TPP** – *Systematic & Comprehensive Process*
 - Phase 1** – **Identify Current Project**
 - Phase 2** – **Determine Data Needs**
 - Phase 3** – **Develop Data Collections Options**
 - Phase 4** – **Finalize Data Collection Program**
- 4. Site History/Previous Investigations/Proposed Sampling Locations/CSM**
- 5. Data Quality Objectives (DQOs)/Screening Criteria**
- 6. Schedule** – *Review upcoming tasks and durations (i.e. TPP Memo, Draft Site Specific Work Plan, etc.)*
- 7. TPP Memorandum** - *Minutes of TPP Meeting; Signatures by Team Members (for concurrence on what was discussed, does not signify agreement)*
- 8. TPP Work Sheets / Memo for the Record (MFR)** – *To be completed as a group*
- 9. Action Items** – *Items, responsible person, suspense date*
- 10. Closing Remarks from the Team**
- 11. TPP Evaluation Form** – *To be completed by all Participants*

ATTACHMENT 2

LIST OF ACRONYMS AND ABBREVIATIONS

APP	Accident Prevention Plan
ARAR	Applicable or Relevant and Appropriate Requirement
ASR	Archive Search Report
CENAB	Corps of Engineers North Atlantic – Baltimore
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CIH	Certified Industrial Hygienist
CONUS	Continental United States
CSM	Conceptual Site Model
CX	Center of Expertise
DERP	Defense Environmental Restoration Program
DoD	Department of Defense
DQO	Data Quality Objective
EA	EA Engineering, Science, and Technology, Inc.
EM	Engineering Manual
EOD	Explosive Ordnance Disposal
EPA	U.S. Environmental Protection Agency
EPP	Environmental Protection Plan
ERA	Ecological Risk Assessment
FDE	Findings and Determination of Eligibility
ft	Foot/Feet
FSP	Field Sampling Plan
FUDS	Formerly Used Defense Site(s)
GIS	Geographic Information Systems
GPL	GPL Laboratories, LLLP
GPS	Global Positioning System
HASP	Health and Safety Plan

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

HFA	Alion/Human Factors Applications, Inc.
HHRA	Human Health Risk Assessment
HQ	Headquarters
HRS	Hazard Ranking System
IDW	Investigative-Derived Waste
INPR	Inventory Project Report
MC	Munitions Constituents
MDL	Method Detection Limits
MEC	Munitions and Explosives of Concern
MEDEP	Maine Department of Environmental Protection
MFR	Memorandum for Record
MM	Military Munitions
MMRP	Military Munitions Response Program
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NDAI	No Department of Defense Action Indicated
PA	Preliminary Assessment
PGM	Program Manager
PM	Project Manager
PPE	Personal Protective Equipment
PRG	Preliminary Remedial Goal
PWS	Performance Work Statement
QA	Quality Assurance
QAPP	Quality Assurance Project Plan
QC	Quality Control
QCP	Quality Control Plan
QL	Quantitation Limits
RCRA	Resource Conservation and Recovery Act

LIST OF ACRONYMS AND ABBREVIATIONS (CONTINUED)

RAC	Risk Assessment Code
RI/FS	Remedial Investigation and Feasibility Study
RBC	Risk Based Concentration
SAP	Sampling and Analysis Plan
SHPO	State Historic Preservation Officer
SI	Site Inspection
SOW	Scope of Work
SSHO	Site Safety and Health Officer
SSL	Soil Screening Level
STR	Senior Technical Review
SUXOS	Senior Unexploded Ordnance Supervisor
T&E	Threatened and Endangered
TCRA	Time Critical Removal Action
TEU	Technical Escort Unit
TL	Team Leader
TPP	Technical Project Planning
U.S.	United States
USACE	U.S. Army Corps of Engineers
USAESCH	U.S. Army Engineering and Support Center, Huntsville
UXO	Unexploded Ordnance
WP	Work Plan

ATTACHMENT 3

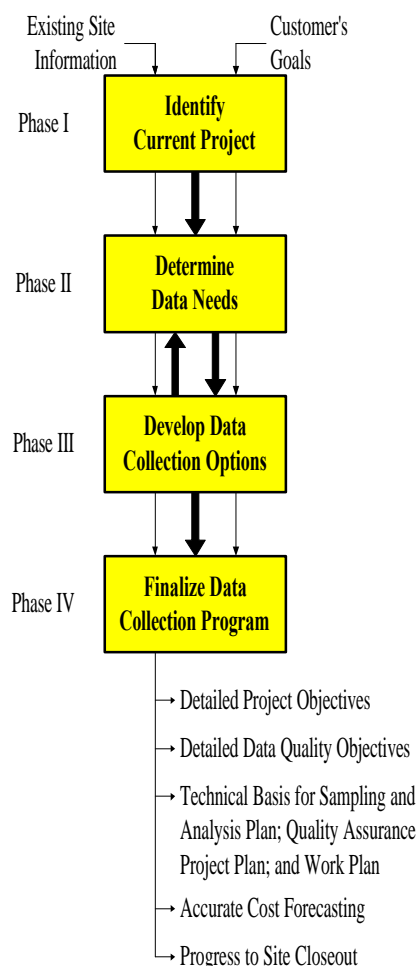


**US Army Corps
of Engineers ®**

Engineer Manual 200-1-2

(Download from <http://www.usace.army.mil/inet/usace-docs/eng-manuals/em.htm>.)

TECHNICAL PROJECT PLANNING (TPP) PROCESS



- ✓ Focused on site closeout!
- ✓ Useful for all sites
(small/simple to large/complex)!
- ✓ Applicable when planning site investigation; design; construction; operation and maintenance; and long-term monitoring activities!
- ✓ Guidance for project managers, engineers, scientists, attorneys, customers, regulators, and other stakeholders!
- ✓ Use of TPP Process typically saves 10 to 15 percent of project time and costs!

This brochure provides only an overview of the TPP guidance provided in EM 200-1-2.

Phase I

Identify Current Project

Phase I activities accelerate protection of human health and the environment and expedite progress to desired future use conditions at a site.

- Decision makers and technical personnel are brought together;
- Current project is identified; and
- Project objectives are documented.

Phase I is designed to “front-load” conflicts and decision making. Resultant project efficiency more than compensates for the early commitment to proactive communications and detailed, site-specific planning.

Phase II

Determine Data Needs

Phase II activities involve an evaluation to determine if additional data are needed to satisfy the site-specific project objectives.

- Data needs are determined; and
- Data needs are documented.

Phase II is designed to support the detailed planning required to determine and document data needed for the current project, and subsequent executable stages.

Who should use the TPP Process?

Project managers and their technical personnel should use the TPP Process to help satisfy a customer’s expectations. The customer, regulator, and other stakeholders should also participate during the TPP Process to maximize the effectiveness of planning, implementation, and assessment efforts.

What is the TPP Process?

The TPP Process is a comprehensive and systematic process that involves four phases of planning activities. The TPP Process was developed for identifying project objectives and designing data collection programs for hazardous, toxic, and radioactive waste (HTRW) sites. Use of the TPP Process is consistent with the philosophy of taking a graded approach to planning that will produce the type and quality of results needed for site-specific decision making.

Why should the TPP Process be used?

Use of the TPP Process ensures effective and efficient progress to site closeout within all project constraints. Use of the TPP Process saves resources by reducing both the project duration and the project expenditures. Application of the TPP Process is also simpler and more complete than EPA’s 7-Step Data Quality Objective (DQO) Process.

When should the TPP Process be used?

The TPP Process should be used as follows:

- To plan a new project;
- To review existing project plans; and
- To plan the next executable stage of site activities.

Where should the TPP Process be used?

The TPP Process should be used when planning any site activity (i.e., investigation; design; construction; operation and maintenance; or long-term monitoring).

How is the TPP Process used?

- Use of the TPP Process is lead by the Project Manager, and may be facilitated by an outside party;
- A multi-disciplinary team, identified during Phase I, uses the TPP Process to guide their planning efforts; and
- Use of the TPP Process requires that personnel represent decision maker, data user, and data implementor planning perspectives.

Phase III

Develop Data Collection Options

Phase III activities ensure the customer will have the information required for related business decisions.

- Sampling and analysis approaches are planned;
- Data collection options are developed; and
- Data collection options are documented.

Phase III is designed to support planning sampling and analysis approaches that will satisfy the data needs for a project.

Phase IV

Finalize Data Collection Program

Phase IV activities challenge a TPP team to discuss data collection options and finalize a data collection program that best meets the customer's short- and long-term goals for a site.

- Data collection program is finalized; and
- Data collection program is documented.

Phase IV is designed to provide guidance for documenting data collection programs with project-specific DQO statements. Many TPP products can also be attached to a project's management plan.

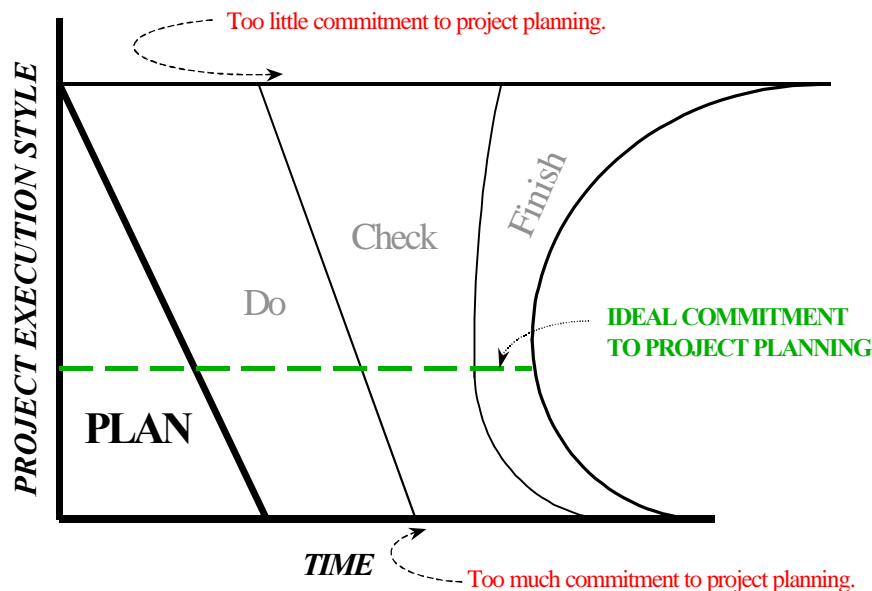
KEY CONCEPTS

- **Site Closeout** is achieving the “walk away goal,” or final condition of a site, as envisioned by the customer. The team develops an effective site closeout statement after considering future land use; the site's regulatory compliance status and issues; and the customer's preferences for the final condition of the site.
- **Project Objectives** must be satisfied or resolved in order to progress from the current site status and condition to site closeout. Phase I efforts to identify and clearly document project objectives ensure that site-specific regulatory issues and environmental conditions are successfully addressed.
- **Basic, Optimum, and Excessive** are very powerful terms used for classifying project objectives, grouping data needs, and presenting data collection options for a customer's consideration.
- **Data Quality Objective (DQO)** statements are prepared during Phase IV, include nine data quality requirements, and meet EPA's definition of a DQO.

EFFECTIVE AND TIMELY PLANNING

A premise of the TPP Process is that each individual contributing to a project has his/her own project execution style. The systematic TPP Process enables a project manager to achieve an appropriate balance of project execution styles within a team, accelerate progress to site closeout, and reduce expensive time and efforts during the “do,” “check,” and “finish” stages of any project. As illustrated below, benefits of effective and timely planning include:

- Less time is expended to “check” and “finish” a well planned project; and
- Less overall time (and money) is expended when early efforts are focused and the team strives to optimally plan a project.



Applicability

The TPP Process applies to all HQUSACE elements and USACE commands responsible for HTRW projects.

Availability

Electronic copies of the TPP Process guidance and other USACE publications can be downloaded from <http://www.usace.army.mil/inet/usace-docs/>.

Points of Contact

- HQ Proponent
Larry Becker, USACE
(202) 761-8882
- Subject Matter Expert
Heidi Novotny, USACE
(402) 697-2626
- PROSPECT Course
Joy Rodriquez, USACE
(256) 895-7448

Workshops

A hands-on case study workshop is available as a 2.5-day PROSPECT Course for individuals or entire project teams.

On-Board Facilitation

TPP teams have learned that segments of the TPP Process can be performed during a series of half-day meetings. On complex projects, a facilitator has introduced the TPP Process and then helped the TPP team to apply the process and capture the TPP plans for a project.

TPP Process Guidance

Foreword	
Chapter 1	Identify Current Project (Phase I)
Chapter 2	Determine Data Needs (Phase II)
Chapter 3	Develop Data Collection Options (Phase III)
Chapter 4	Finalize Data Collection Program (Phase IV)
Chapter 5	Implement and Assess Data Collection Program
Appendix A	References
Appendix B	Abbreviations and Acronyms
Appendix C	Definitions
Appendix D	Outline of TPP Activities
Appendix E	Crosswalk to EPA's 7-Step DQO Process
Appendix F	Worksheets for Documentation
Appendix G	Verification of DQO Attainment

- ✓ The TPP Process is a critical component of USACE's quality management system that conforms to the American National Standard for planning the collection and evaluation of environmental data.
- ✓ The TPP Process supports development of management plans for projects as required by the Engineer Regulation governing program and project management.
- ✓ The TPP Process satisfies the systematic planning requirements of EPA's mandatory agency-wide quality system.
- ✓ Documentation tools provided within the TPP Process guidance encourage detailed data collection planning and contribute to maintaining institutional site knowledge.

ATTACHMENT 4



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Seal Island Gunnery Range Military Munitions Response Program (MMRP) Site Inspection (SI)

**Technical Project Planning (TPP) Meeting
February 9, 2006
Portland, ME**



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Introductions

- Why are we here?
Achieve 'Site Closeout' (as it relates to Munitions and Explosives of Concern (MEC) and Munitions Constituents (MC)), involve stakeholders, etc.
- Name, Organization, Role on the Project, and Expectations of TPP
- Sign in sheet
- Acronyms and other handouts in package



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Agenda

- Introductions
- Overview of the Military Munitions Response Program (MMRP) & Site Inspection (SI) Process
- Overview of the TPP – Systematic & Comprehensive Process
- Site History/Previous Investigations/Proposed Sampling Locations
- Site-Specific Work Plan (WP)
- Data Quality Objectives (DQO)/Screening Criteria
- Schedule
- TPP Worksheets
- TPP Memorandum
- Closing Remarks from the Team/TPP Evaluation Form



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MMRP SI Program

Under Defense Environmental Restoration Program (DERP), USACE is conducting a nationwide effort to identify, manage and prioritize future response actions at Formerly Used Defense Sites (FUDS) where historical documents indicate MEC were used, produced, tested, or stored by the military.

- In 2002, Defense Appropriations Act passed requiring USACE to complete an initial range inventory of MMRP FUDS

This effort included:

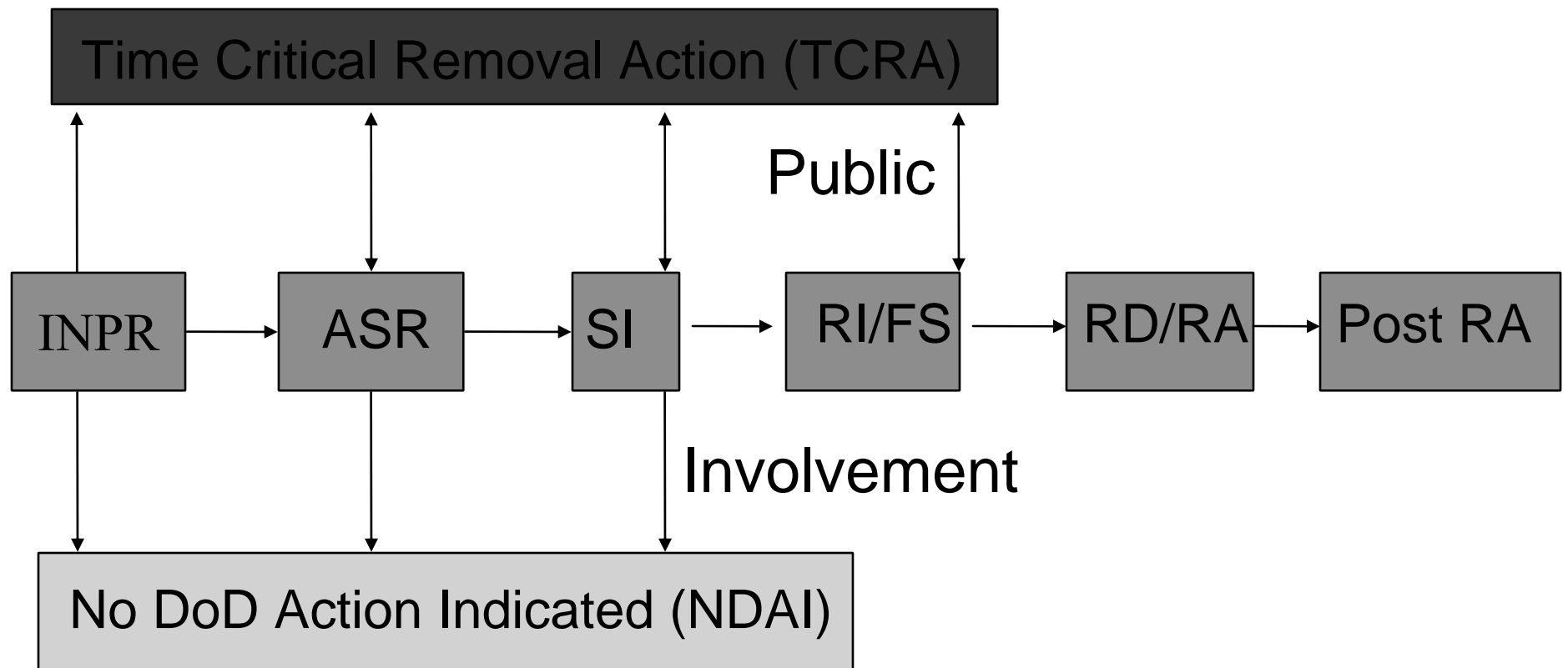
- Inventory Project Report (INPR) review
- Archive Search Report (ASR) review
- Locating ranges/range fans and other MMR areas associated with each FUDS
- Results used to populate additional required data fields in a centralized database

USACE to complete over 700 SIs nationwide by FY10



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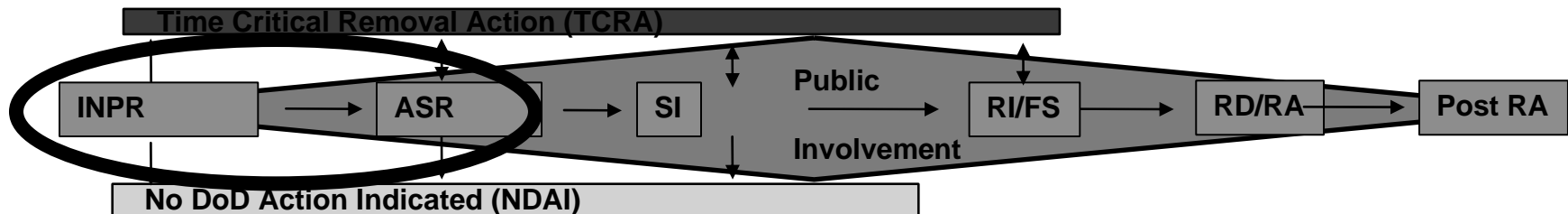
MMRP Response Process





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MMRP Response Process

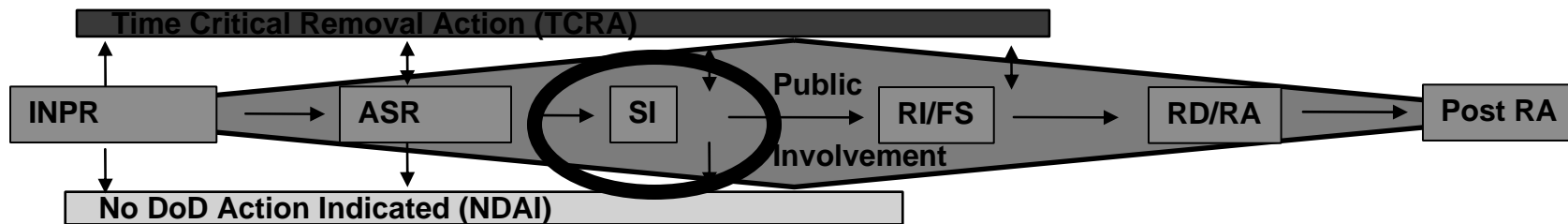


- Inventory Project Report (INPR) – Completed
- Archive Search Report (ASR) – Completed



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MMRP Response Process

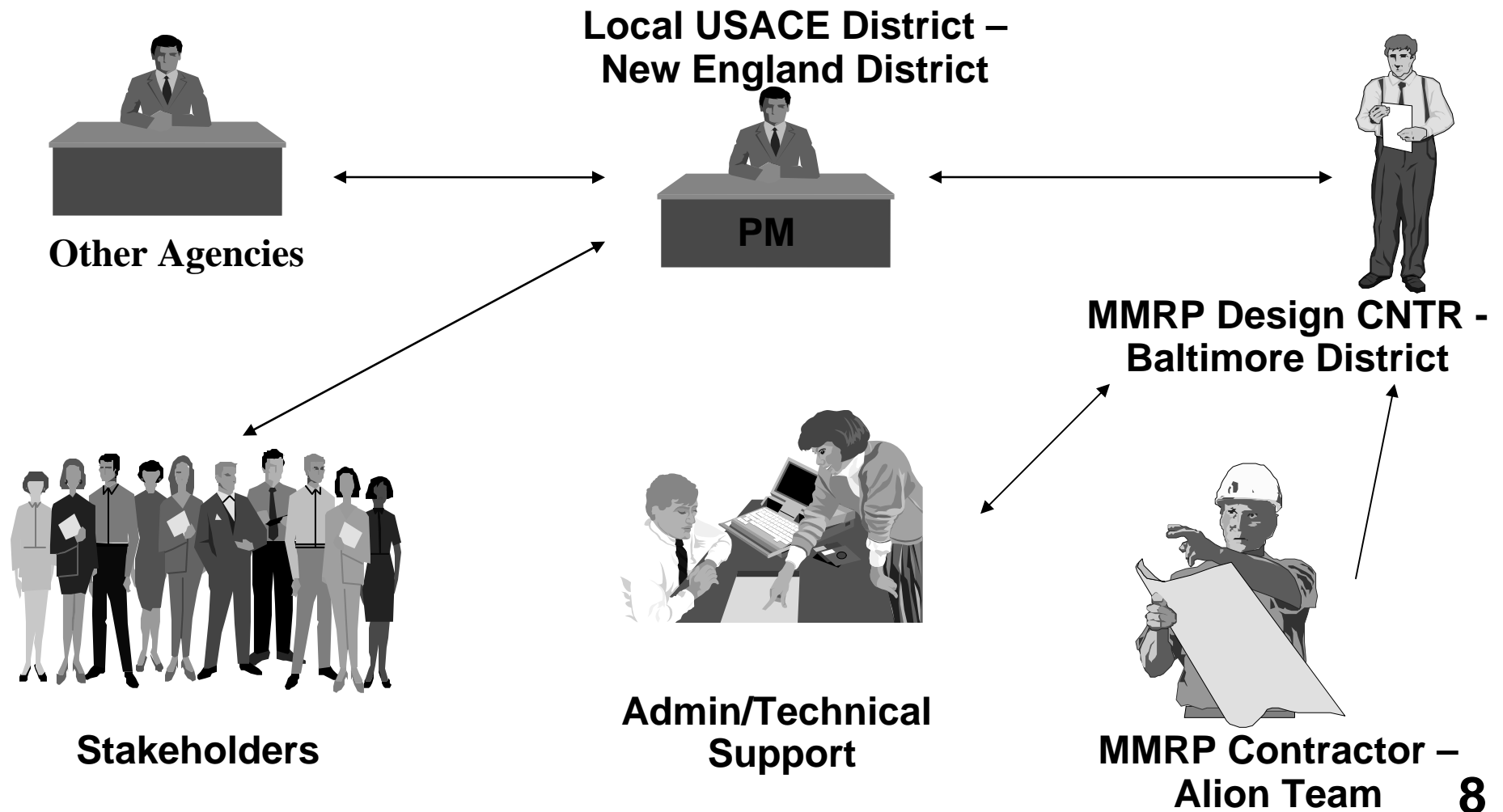


The SI Phase will be completed in 18 months.



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Project Team Composition





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MMRP Design Center Responsibilities - Baltimore

- Successful completion of the projects
- Timely submission of all deliverables
- Ensure appropriate coordination between Alion and FUDS geographical district
- Conduct technical reviews of TPP meeting minutes, SI Site-Specific WP, and SI report
- Perform additional project QA/QC
- Conduct oversight of Alion work efforts
- Monthly status reports



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Geographical USACE District Responsibilities – New England District

- Obtain Right of Entry from property owners
- Coordinate and communicate project planning activities with regulators/stakeholders in accordance with the TPP process
- Review/comment on TPP meeting minutes, SI Site-Specific WP, and SI reports and coordinate with regulator/stakeholders for their reviews and comments on TPP meeting minutes, SI Site-Specific WP, and SI report
- Hold public meeting and public involvement activities (if necessary)
- Establish and maintain a permanent project record
- Work with Design Center to monitor planning and execution of SI field work.



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MMRP Contractor - Alion

- Responsible for all contractor MEC/MC related activities
- Responsible for the development of the SI
 - Historical review
 - CSM
 - DQOs
 - Work Plan
 - Fieldwork
 - Reports
- Consult the Army Corps of Engineers during SI activities



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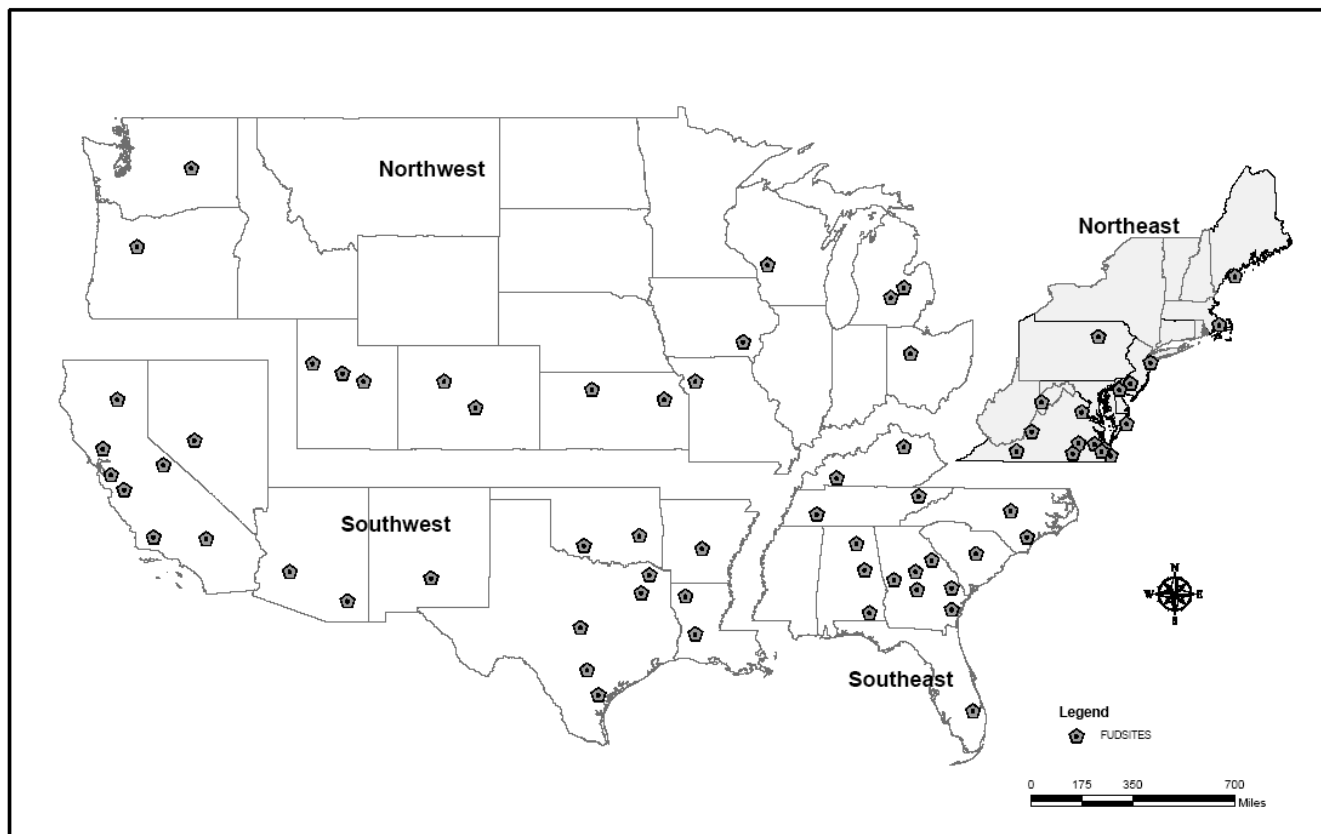
Stakeholder Responsibilities

- Stakeholders provide input throughout the MMRP removal process.
- Voice community concerns
- Review and give input to Technical Project Planning (TPP)
- Review/comment on SI Site-Specific WP and SI report



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SAMPLE of SI Project Locations



Sample of Site Inspection Project Locations



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SI Objectives

- **NOT a full-scale study**
- **Primary Objective:**
 - Determine whether site warrants further response action under CERCLA or NDAI
- **Secondary Objectives:**
 - Confirm the presence of MEC or MC
 - Determine the need for an emergency response action or a TCRA by evaluating data (Historical Documentation, Site Visit, Geophysics)
 - Collect data to characterize site and determine risk
 - Collect data for Hazard Ranking System (HRS)
 - Collect data to complete the Munitions Response Site
 - Priority Protocol (MRSP)



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General SI Approach for MEC & MC at FUDS

- The SI will focus on those areas identified through historical documents as having been associated with MEC/MC operations, such as a range, firing point, OB-OD, or burial area (if present)
- Additional areas will be included that are identified by the regulators or stakeholders that have evidence of MEC/MC use from DoD activities
- Areas of the former installation that do not have historical evidence of MEC/MC activities are not included



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SI Technical Approach for MEC at FUDS

The MEC portion of the SI will involve some or all of the activities shown below, listed in order of increasing level of effort. Activities will be limited to the most appropriate level of effort possible.

1. Use of existing data, where available and sufficient, to document the presence or absence of MEC
2. If not previously identified, conduct reconnaissance inspection to determine approximate boundaries of project area (this will also confirm areas historically identified as MEC areas of concern)
3. Surface inspection only, MEC items are clearly visible on the ground surface
4. Magnetometer assisted site reconnaissance; to keep from disturbing unseen MEC items located on the surface or under vegetative cover



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SI Technical Approach for MC at FUDS

The MC portion of the SI will involve some or all of the activities shown below, listed in order of increasing level of effort. Activities will be limited to the most appropriate level of effort possible.

1. Use of existing data, where available and sufficient, to document the presence or absence of MC
2. Collect composite surface soil samples at firing points, impact areas, or where contamination is most expected
3. Collect background samples: for TAL metals in any matrix sampled, only if no previous studies exist for the installation
4. Collect composite sediment samples in accumulation or high runoff areas
5. Collect surface water samples in surface water bodies in close proximity to area where contamination is most expected
6. Collect groundwater samples - use *existing* (monitoring or water supply) *wells* to maximum extent practical



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SI Technical Approach for MC at FUDS (cont.)

Other Sampling Methods that may be employed if primary methods of MC Data Collection are not appropriate for the site.

- 7. Collect discrete surface soil or sediment samples in areas of very high concern**
- 8. Collect groundwater samples - install *new wells***
- 9. Collect discrete subsurface soil samples - only from new monitoring well borings or areas of very high concern**
- 10. Collect surface water samples - only in impoundment areas where high levels of explosives could accumulate**



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Technical Project Planning (TPP) - Overview

- Purpose/Objective
 - Develop a plan to achieve site closeout for MMRP (plan will address Munitions and Explosives of Concern as well as Munitions Constituents)
 - Involve stakeholders in project decision making/work plan development
 - Systematically address complex issues
- Spirit
 - “Structured brainstorming”



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TPP Overview (cont.)



- **TPP Structure; TPP is a four phase process**

- **Phase I - Identify the project.**

(90% of TPP effort)

Describe the situation

Develop the CSM

.....

- **Phase 2 - Determine data needs.**

What *do* we know?

What *don't* we know?

.....

- **Phase 3 - Develop data collection options.**

- **Phase 4 - Finalize data collection program.**

} How best to get
the information
we need?

(Phases 3 & 4 mostly pre-defined for MMRP projects.)



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TPP – Overview (cont.)

- Key TPP Products
 - **Understanding of Stakeholder Concerns**
 - Identifying stakeholders and their special interests, identifying competing interests (if any), and determining key issues (“hot buttons”)
 - **Develop the Project Goal/site closeout statement**
 - Overall SI Project Goal is to determine what additional action(s) are necessary to closeout the MMRP project (emergency response action, time critical removal action (TCRA), remedial investigation (RI), or NDAI)
 - **Develop Conceptual Site Model (CSM)**
 - Identify potential sources, pathways, and receptors



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TPP – Overview (cont.)

- **Key TPP Products (cont.)**

- **Develop Data Quality Objectives (DQOs)**

- Identify criteria that a data collection program should satisfy (including numbers of samples/measurements to collect; decision error rates, QA/QC requirements, and screening criteria)

- **Develop Project Objectives/Data needs to reach project goal**

- Issues to be resolved prior to achieving project goal of site closeout (may include future land use, evaluating regulatory requirements [Endangered Species Act, wetlands, National Historic Preservation Act, Coastal Zone Management Act], ongoing investigations, right of entry, and site accessibility issues)

- **Probable Remedies**

- Defined in site closeout statement (emergency removal, TCRA, RI or NDAI)

- **Actions needed for site closeout**

- Conduct SI or present existing data (Desktop SI)



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TPP – Overview (cont.)

- Process culminates with a memorandum of meeting minutes (TPP Memorandum)
- Signing the final TPP meeting memorandum does not signify agreement with any or all items discussed, only that it is an accurate record of what was discussed at this meeting.



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TPP Team Members



- Identified Stakeholders
 - Government agencies/regulators
(e.g., USACE, USEPA, MEDEP)
 - Property owner – U.S. Fish and Wildlife
- Other potential stakeholders
 - Public interest groups
 - User groups & community interests
 - Local, State & Federal elected officials
 - External technical resources (technical experts)



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Phase I – Identify the Project: Seal Island

- Currently part of the Maine Coastal Islands National Wildlife Refuge
- 23 Miles east of Rockland, ME
- 1 Mile long and 100 to 300 yards wide
- Total FUDS (eligible area) = 65 acres
- Primarily rocky coastline with a grassy interior
- Only one small known source of fresh water



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Seal Island Installation Map

- Island (65 acres)
 - Bombing Range
 - Rocket Range
- Surrounding Waters
 - Not part of the SI process



Taken from the Supplemental Archive Search Report (ASR)



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Site History

- First used by US DoD in the 1940's under lease
 - Bombing target
 - Used practice bombs and rockets
- 1956 Plans to construct a target and helicopter landing pad developed
- 1957 DoD assumed ownership of site
 - Continued to use as bombing target until 1966
 - Conducted 3 day disposal operation (not fully cleared)
- FUDS property transferred ownership in 1972
 - U.S. Fish and Wildlife Services
 - Part of Maine's Coastal Islands Wildlife Refuge
- 1978 Fire burned underbrush and detonated buried MEC causing several explosions



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Previous Investigations

- **Visual Ordnance Survey (1983)**
 - Navy EOD team covered 55% of the island and discovered one intact 8-inch round
- **Range Clearance (1984)**
 - Navy EOD team performed limited range clearance on the eastern side (pathways from boat landing site to cabin, underwater survey 50 feet out from the shore from boat landing area)
 - Rocky areas determined safe, but grassy areas may still contain MEC hazards
- **PA (1987)**
 - Conducted for EPA by private contractor
 - Concluded primary hazards are potentially explosive conditions due to live military ordnance
 - Recommended further investigation under DERP FUDS



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Previous Investigations (cont.)

- **INPR (1988)**
 - FDE concluded the site consisted of 65 eligible acres
 - Identified MEC as a potential hazard
 - Project # D01ME003201
- **Stakeholder Island Sweep (2001)**
 - Sweep of island performed by USFW, MEDEP, ME Police to determine MEC present
 - Discovered several pieces of MEC (100 lb practice bomb debris, and 5-inch rocket debris)
- **ASR (2003)**
 - Historical evidence suggests the use of practice bombs and rockets during the WWII era and from 1958 to late 1960s
 - ASR cited Seal Island has a confirmed ordnance presence
 - 1978 when island caught fire several explosions occurred
 - Island has been swept several times for MEC (1967, 1983, 1984, 2001)
 - SI team was unable to visit site due to adverse weather conditions and utilized historical reports from previous investigations
- **Supplemental ASR (2004)**
 - Assigned Seal Island an overall RAC score of 3



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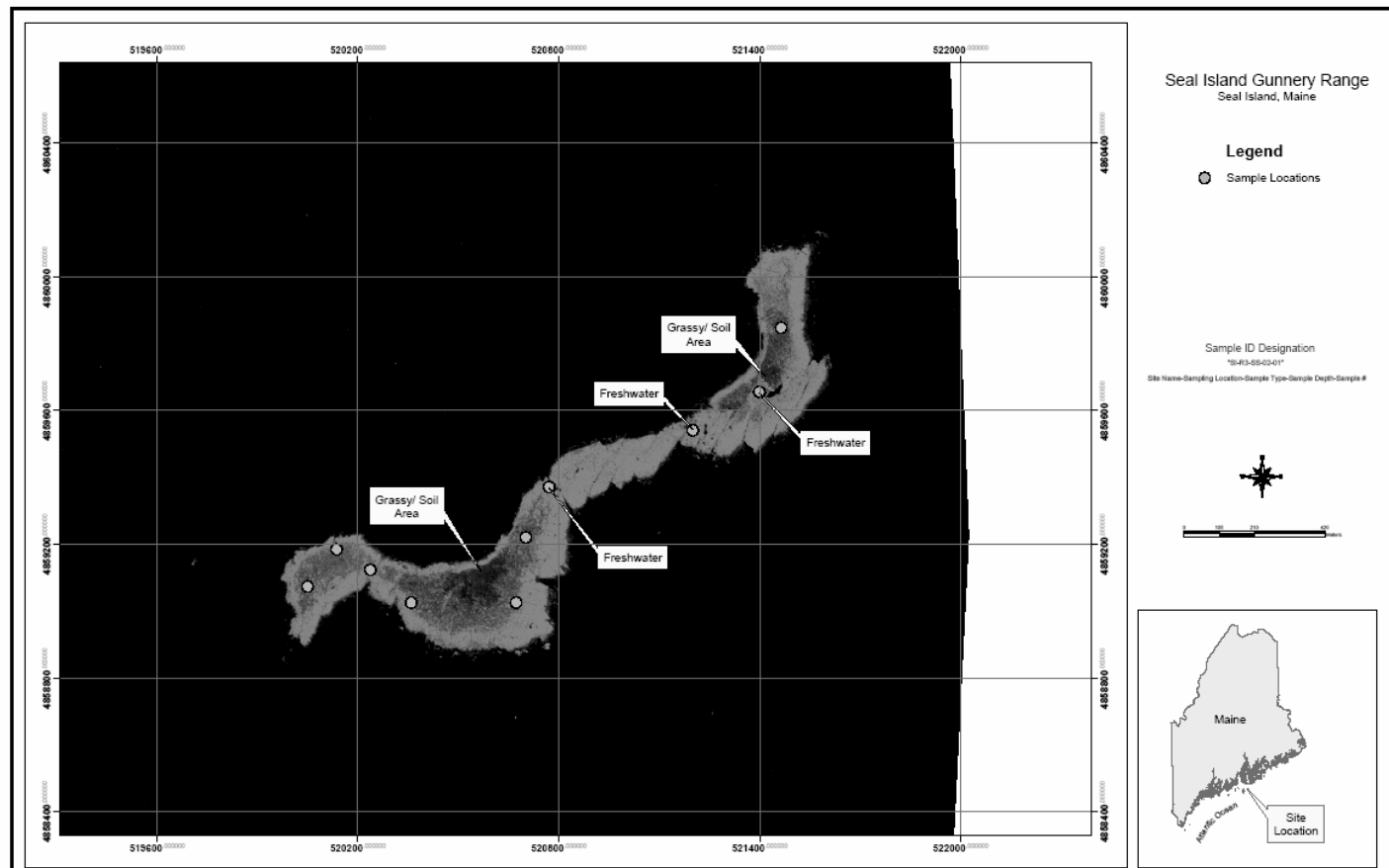
Development of the Conceptual Site Model (CSM)

- **Definition of CSM** - *A simple model of the relationships between contaminants at a site and the potential exposure pathways to human health or the environment.*
 - The CSM serves as the basis for developing a comprehensive approach for addressing response actions based on existing knowledge.
- **Examples of Exposure Pathways**
 - MEC becomes exposed by stream bank erosion; may be contacted by visitors
 - Buried MEC may be in new gas pipeline corridor; construction crews may contact
 - Visitors/site workers may encounter MEC at the surface
 - Lead contaminated soil (MC) at range backstops may become airborne
- **Evaluate available data to develop the CSM**



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CSM Layer – Aerial (1960)

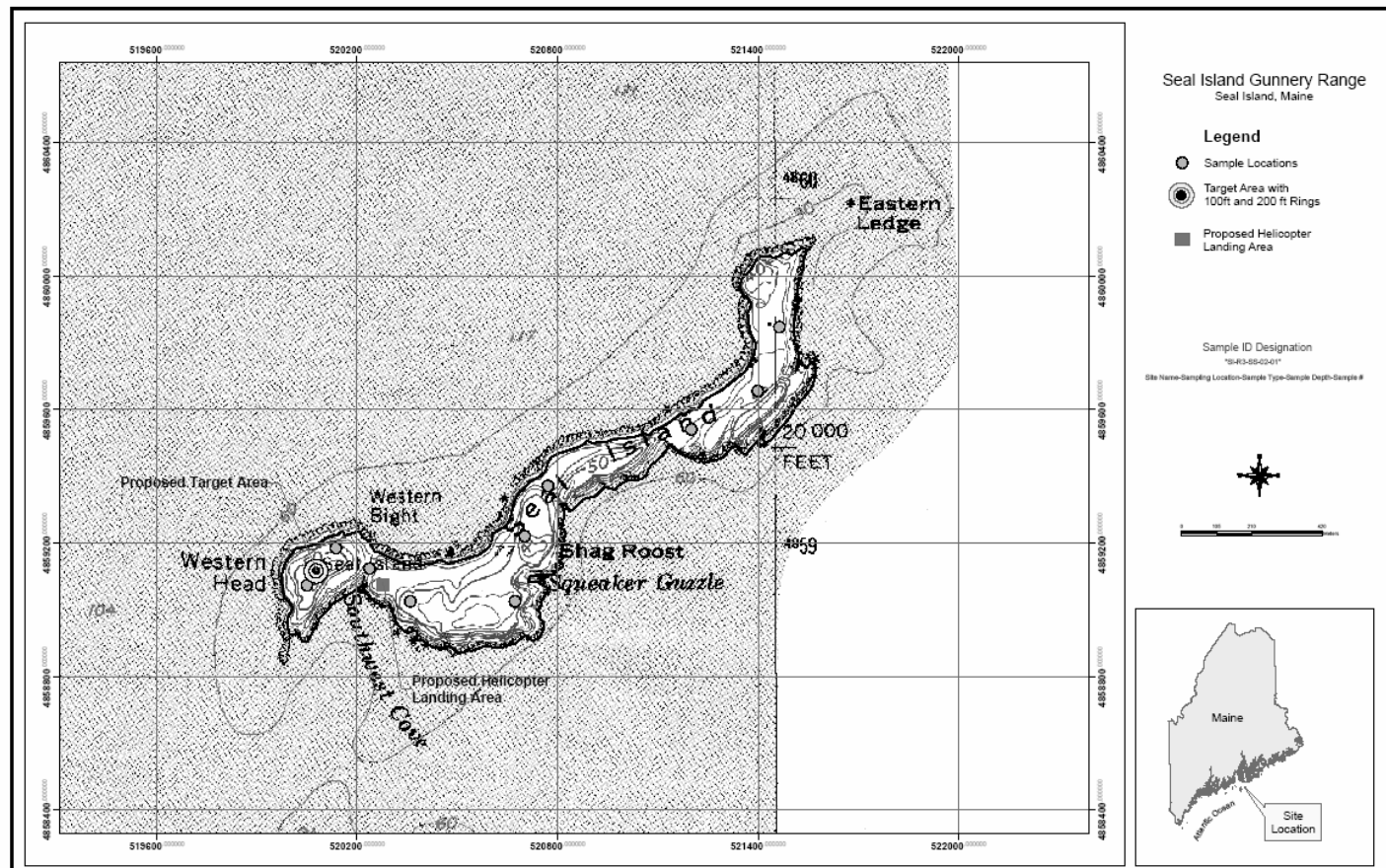


I-1



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CSM Layer - Historically Proposed Target

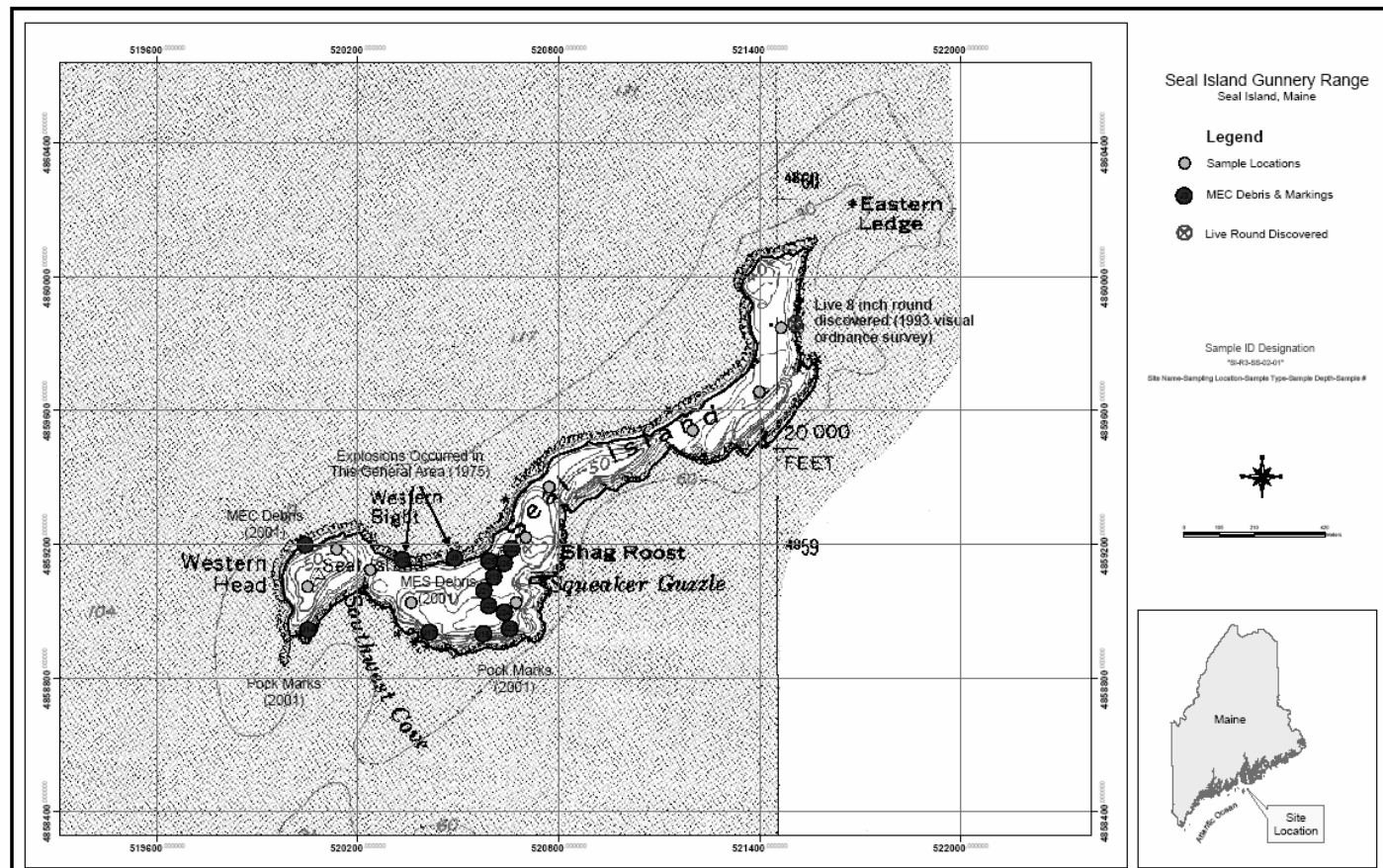


CSM Layer 2. Historically Proposed Target
B.2-2



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CSM Layer - MEC Remnants, Markings and Events

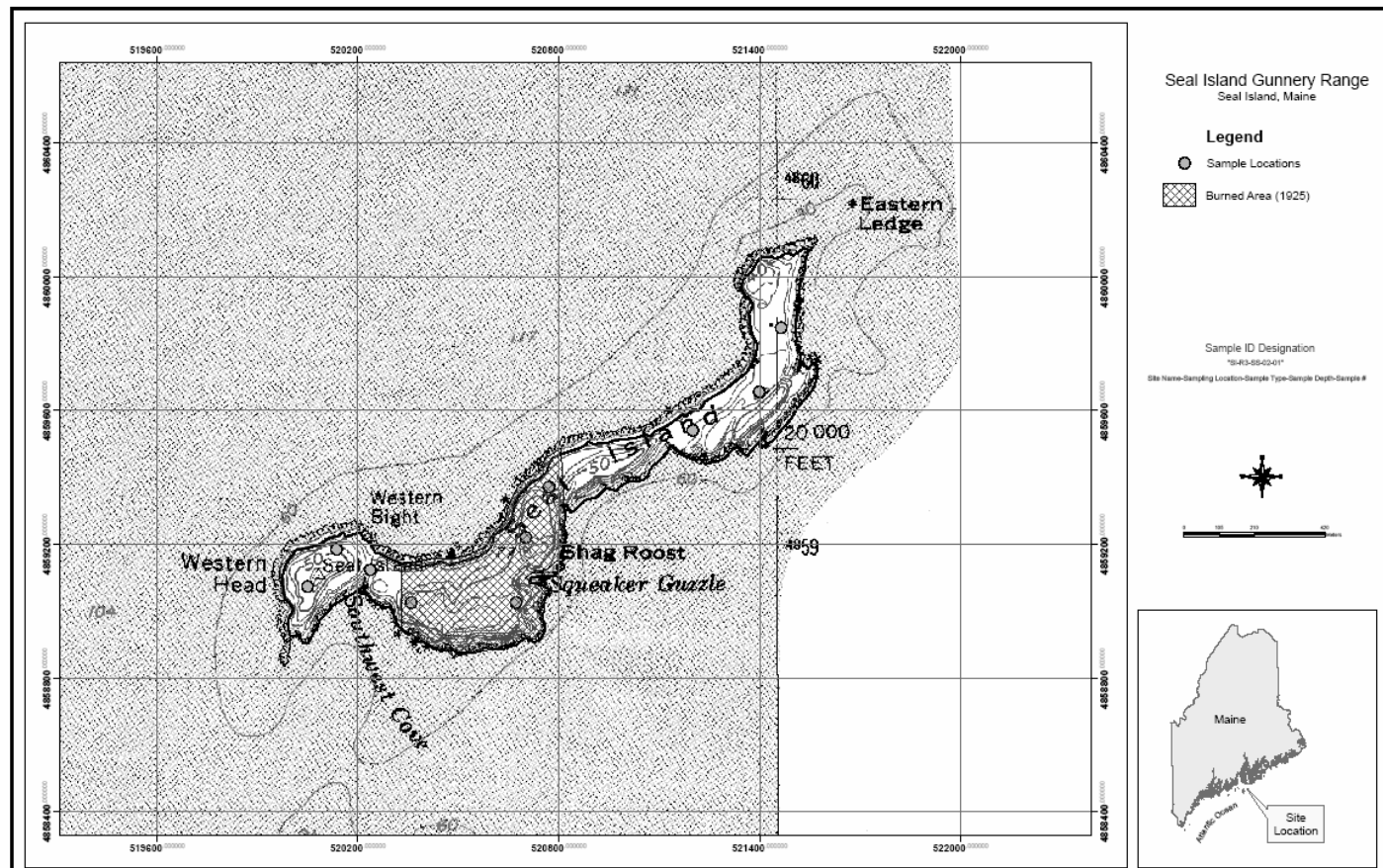


CSM Layer 3. MEC Remnants, Markings, and Events
B.2-3



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CSM Layer - Area Burned During 1978 Fire

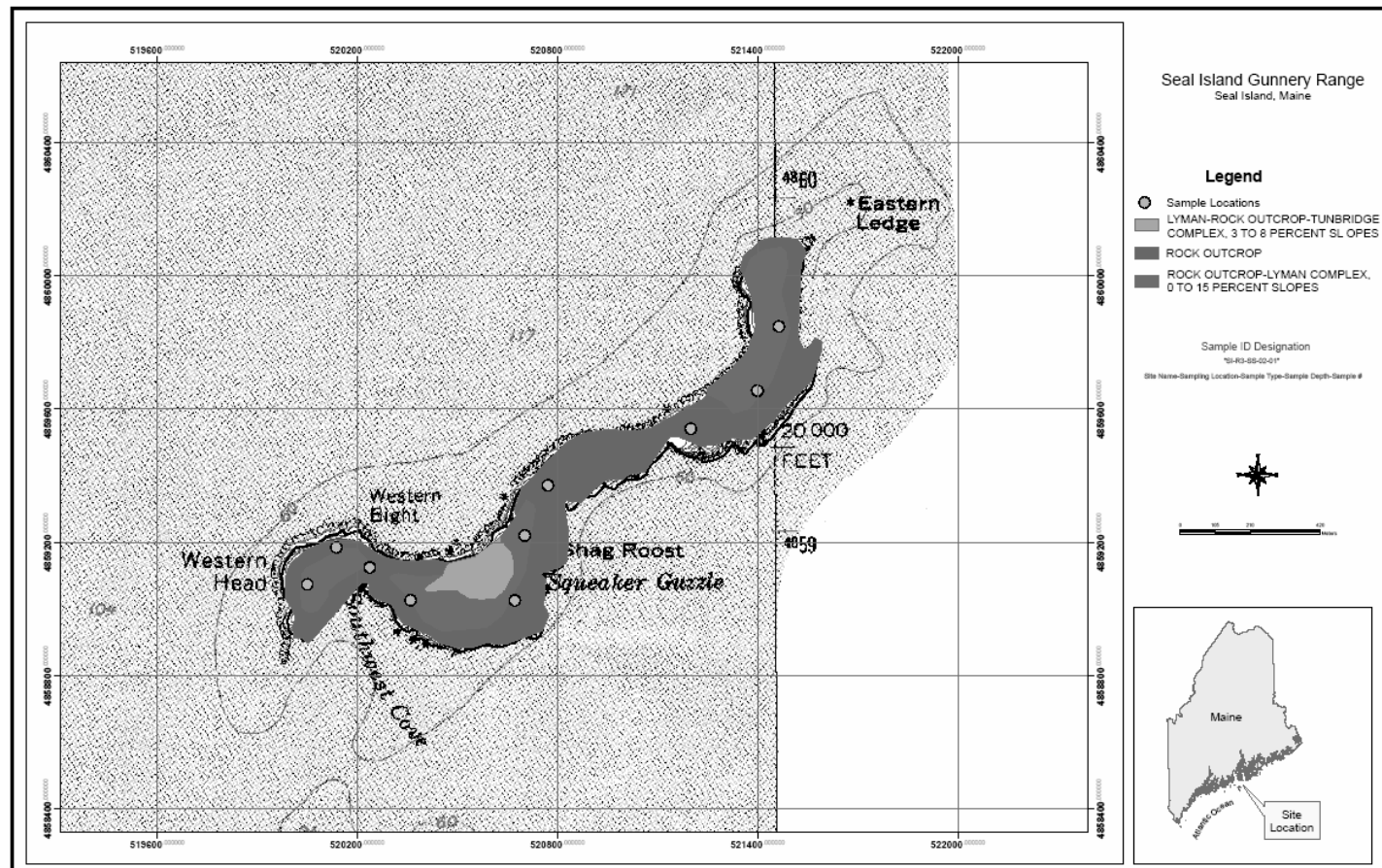


CSM Layer 4. Burned Area (1925)
B.2-4



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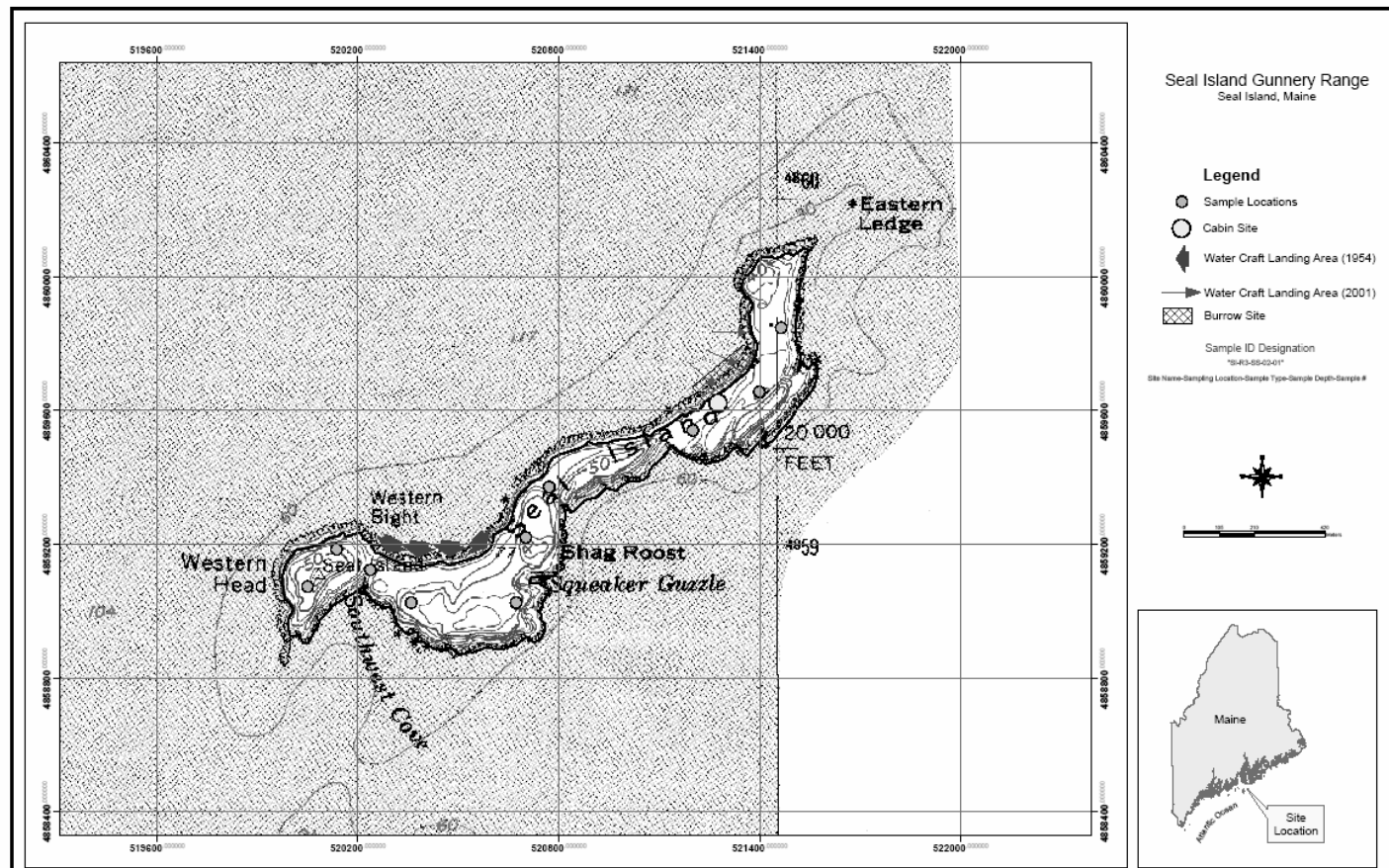
CSM Layer - Soil Types





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CSM Layer 6 - Present Day Landmarks





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Summary of MEC, Type, and Composition

Site Name	Range Name	Acreage	RAC	Types of Munitions	Munitions ID
Seal Island Gunnery Range		12,424	3	Conventional	Practice Bombs; HE Large Caliber (37 MM and larger); Practice Aerial Rockets
	Bombing Range	649	3	Conventional	Practice Bombs; Practice Aerial Rockets
	Rocket Range	12,424	3	Conventional	Practice Bombs; HE Large Caliber (37 MM and larger); Practice Aerial Rockets



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Preliminary Summary of Risk from MEC

SITE NAME	RANGE NAME	SUBRANGE NAME	ACREAGE	RAC SCORE	TYPE OF MUNITIONS	MUNITIONS ID
Seal Island Gunnery Range	Range Complex No. 1		12,424	3	Conventional	Practice Bombs; Practice Aerial Rockets, HE Rockets
		Bombing Range	649	3	Conventional	Practice Bombs; Practice Aerial Rockets
		Rocket Range	12,424	3	Conventional	Practice Bombs; Practice Aerial Rockets, HE Rockets

¹RAC scores are as reported in 2004 Supplemental ASR.



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Summary of Munitions

- **The following slides are intended to provide background information by giving examples of the general types of MEC associated with Seal Island. The MEC are grouped into the following categories:**
 - **100 lb Practice Bomb, Mk 15**
 - **2.25-inch Practice Rocket**
- **Potential contaminants associated with these type of MEC include metals and explosives.**



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Practice Bombs (i.e. 100 lb Mk15)

- Used in horizontal or dive-bombing practice
- Over-all length=41.2 inches
- Body Diameter=8.0 inches
- Fin Dimension=11.24 inches
- Weight=100 pounds
- Potential contaminants – Metals, Explosives



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100-lb Practice Bomb Mk15

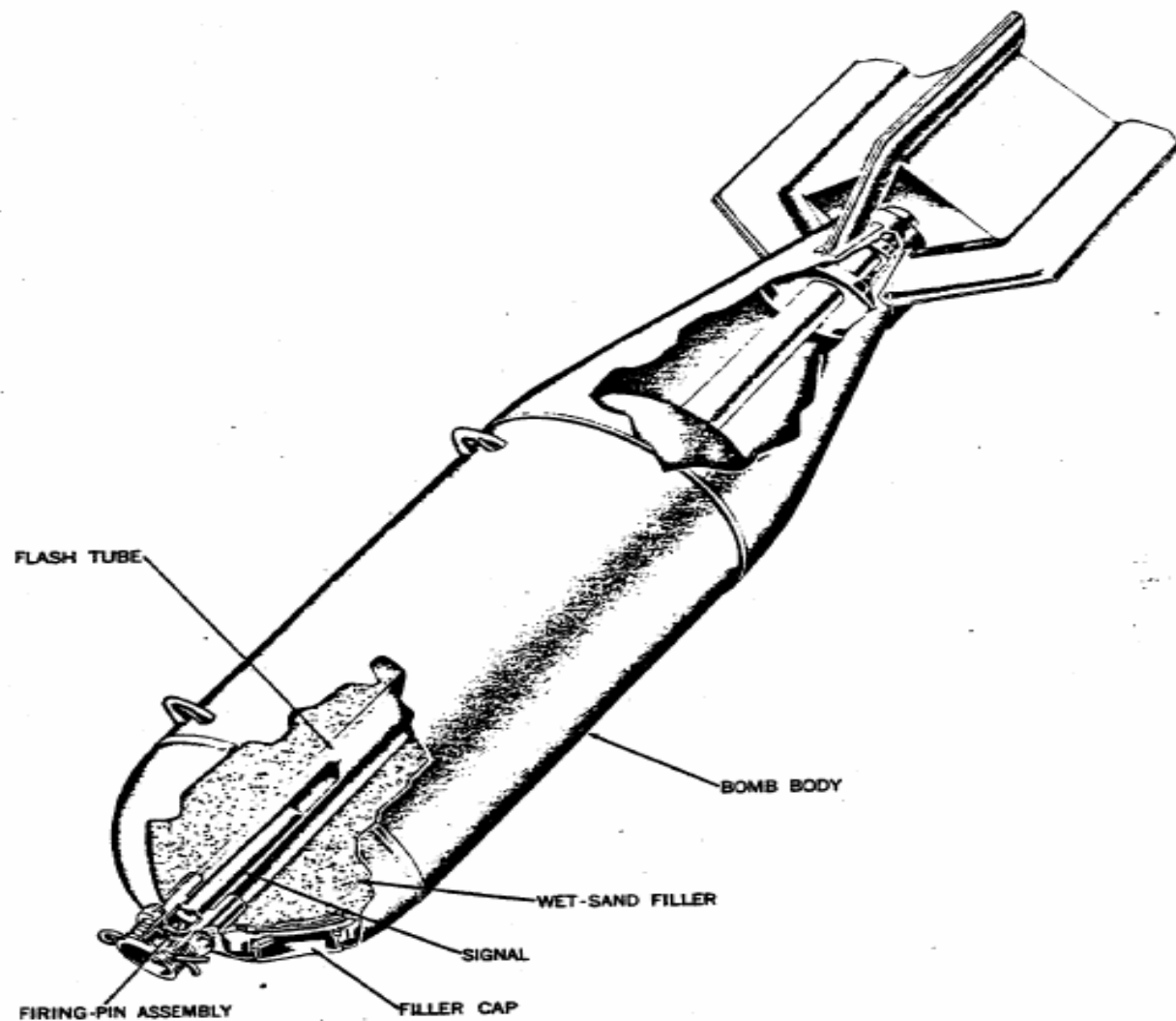


Figure 11-19.—100-lb Practice Bomb Mk 15 Mod 4, Cutaway View.



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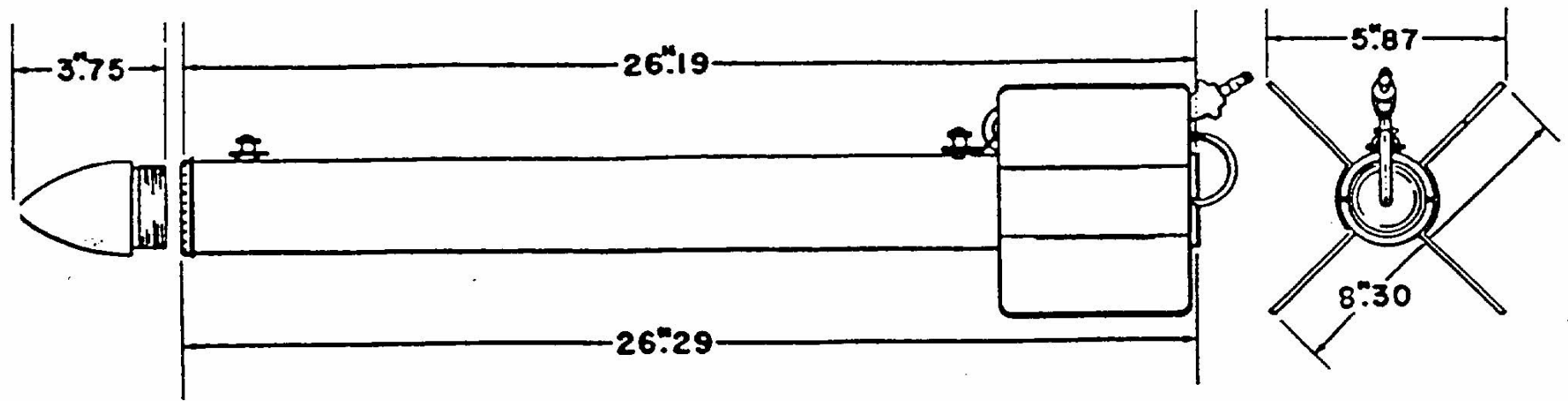
Practice Aerial Rockets

- Used for practice firing against surface targets
- The heads are solid steel, zinc die cast, or cast iron and contain no fuses
- Weight = 12.47 pounds
- Diameter of Body = 2.25 inches
- Length = 29.07 inches
- Potential contaminants – Metals, Explosives



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2.25-Inch Practice Rocket



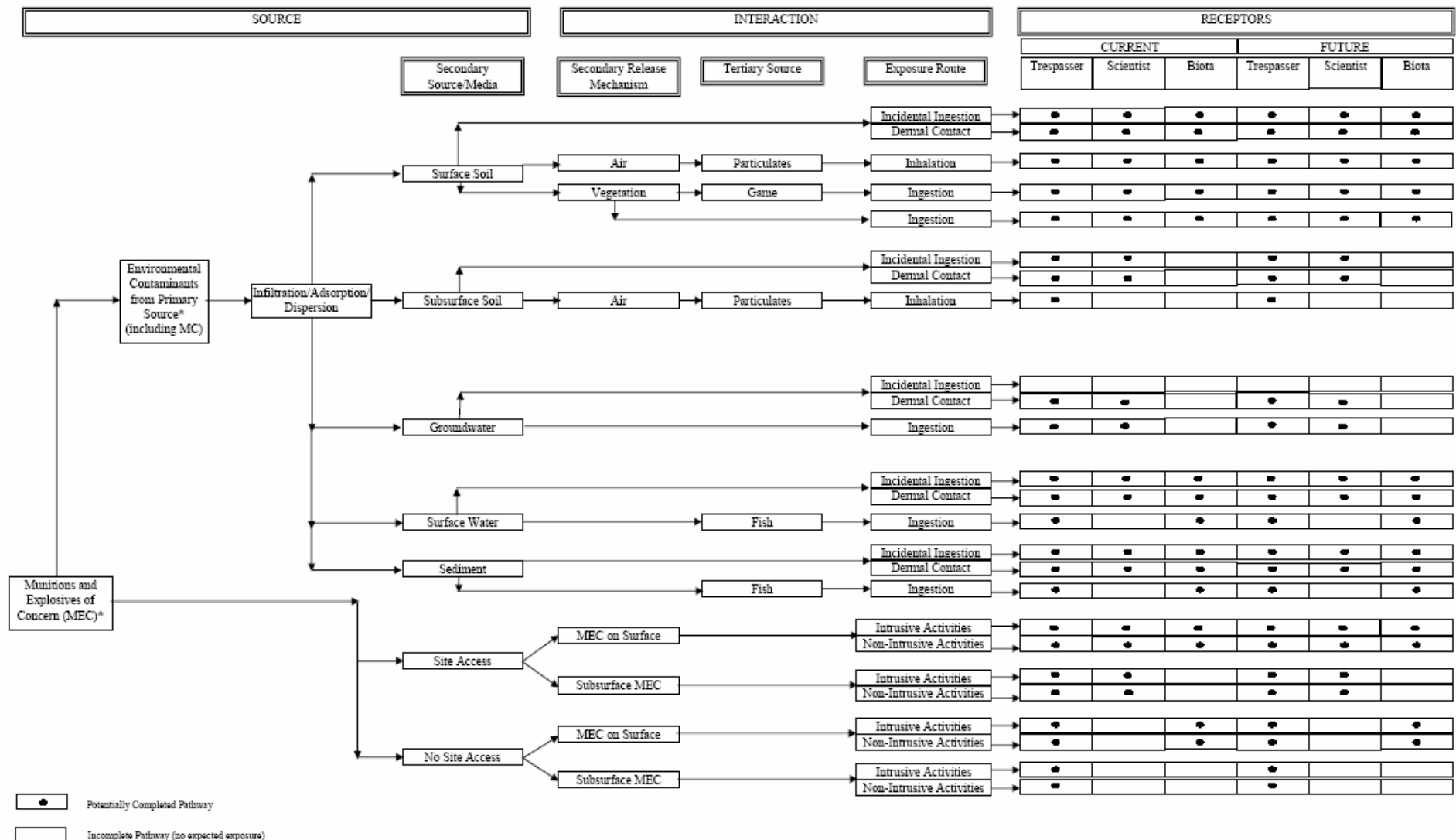


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CSM Formulation

- **Identify Sources**
 - Determine presence/absence of MEC and MC
- **Identify Likely Pathways/Route of Interaction**
 - MEC: direct contact
 - MC: dermal contact, ingestion, inhalation
- **Identify Receptors**
 - Typical receptors include recreational users, trespassers, construction workers, site workers, and biota
- **Determine relationships between potential contaminants at a site and potential exposure pathways to human health or the environment (completed pathway versus incomplete pathway).**

Draft CSM



Impact to sediment may also occur from surface soil via runoff of particulates.
 A separate risk for surface soil and subsurface soil may be combined to represent risk from total soil for some receptors.
 Impact to surface water may also occur from infiltration of groundwater.
 *Primary sources will vary by site but are expected to include open burn/open detonation areas, disposal/burial areas, impact areas, and firing areas, etc.

DRAFT INTEGRATED CONCEPTUAL SITE MODEL FOR
 THE SEAL ISLAND MMRP FUDS SITE



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Summary of Draft Integrated CSM for Seal Island

- **Source(s)**
 - **MEC**: Potential exists for exposure to MEC since MEC debris has been previously found on the surface
 - **MC**: Potential presence of MC due to past use of the site; therefore, potential exists for receptors to be exposed to MC
- **Pathway/Interaction**
 - Surface soil, sediment, and surface water are potential exposure media
- **Receptor(s)**
 - Researchers/Scientists, biota, and trespassers are potential receptors



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Phase 2 – Determine Data Needs

- **Inventory existing data**
 - **Determine if the data is useable**
- **Determine if there are additional data needs**
 - **Are contaminant levels known?**
 - **Are additional samples necessary?**
 - **Is there existing background sample data available?**
 - **Is digital geophysics necessary?**
 - **Has additional MEC been found at the site since the ASR?**





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Existing Data/Data Needs

- **Existing Data**
 - MEC related discoveries
- **Data Gaps**
 - No existing chemical data (MC data) has been found to date by the SI Team
 - Site-specific background data for MC not identified
 - No additional MEC discoveries known since ASR
- **Additional samples/data gathering is necessary**



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Areas for Further Investigation

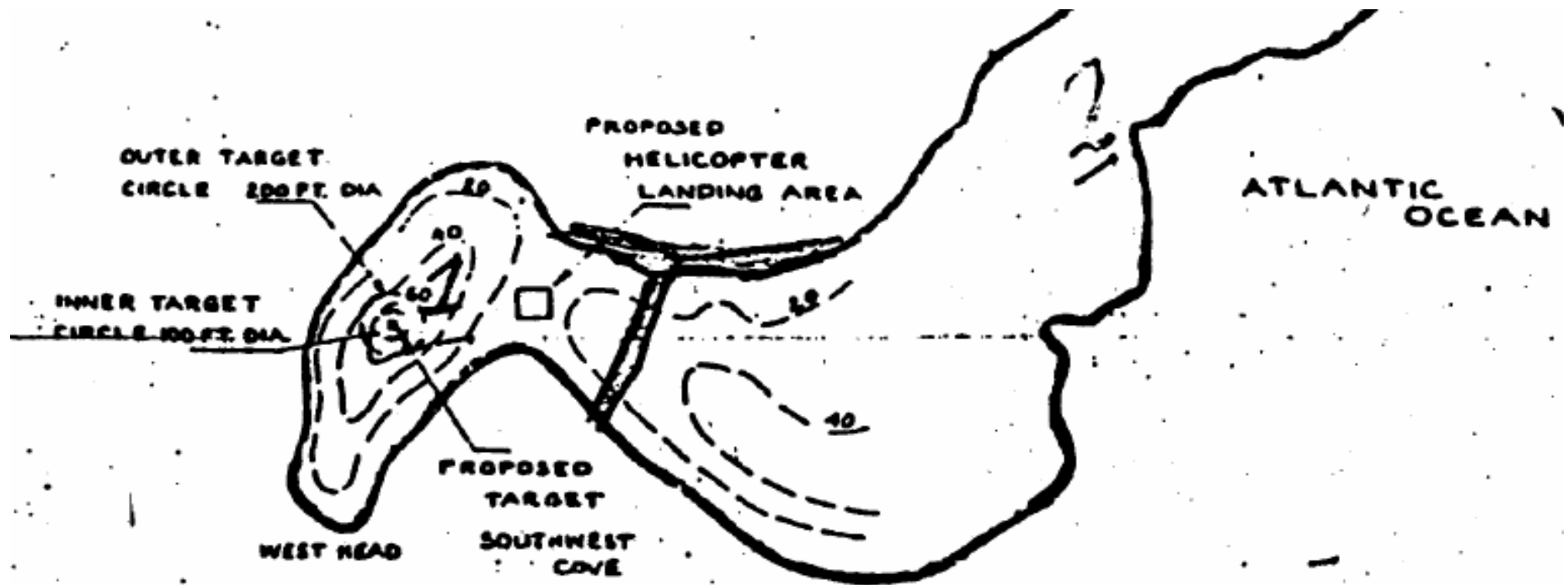
➡ Determined by historical events and
Archive Search Research (ASR)

- Target Area
- Regions where MEC debris was discovered
- Regions where land is deformed
- Low lying areas that accumulate run-off
- Pools of water



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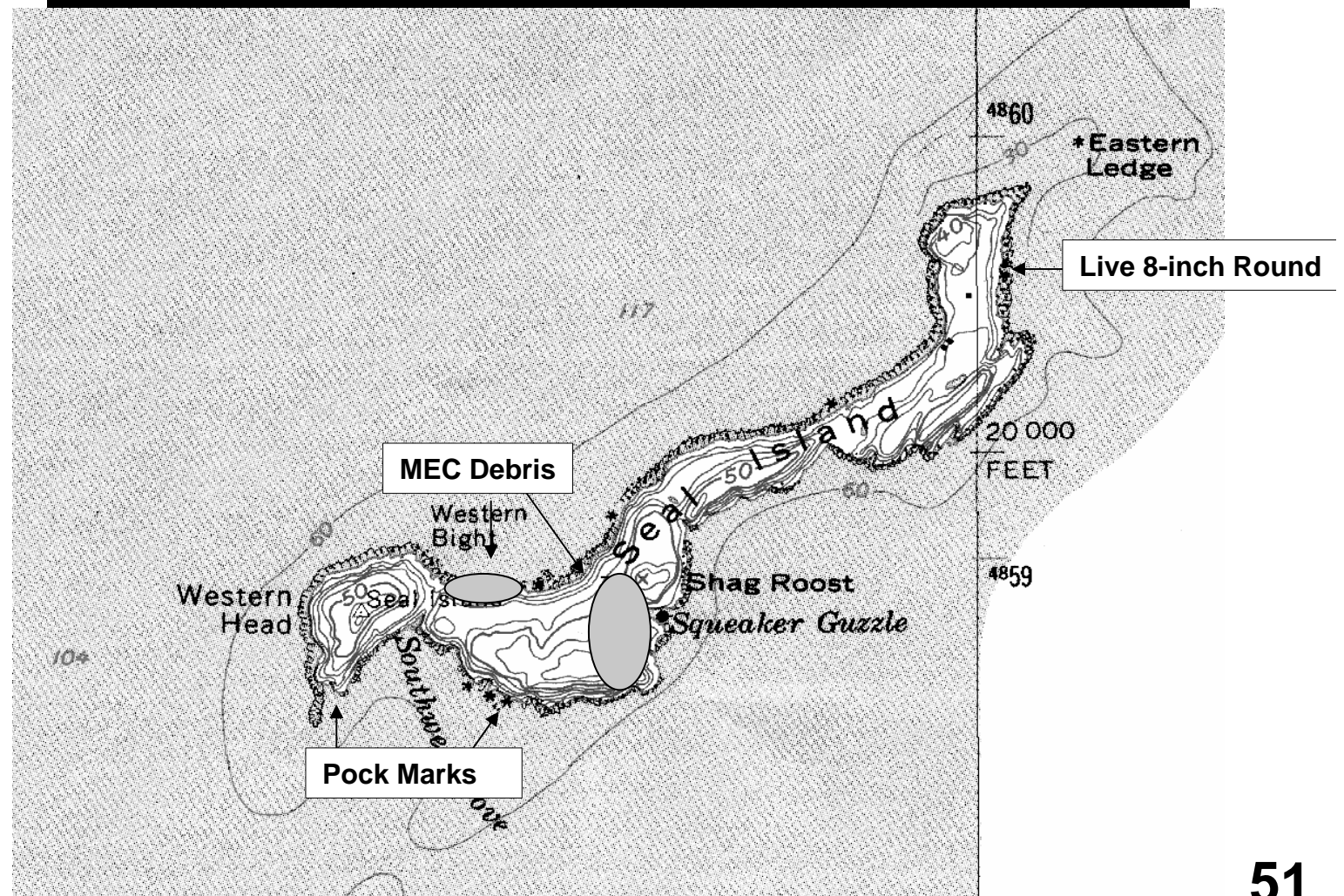
Areas for Further Investigation (Proposed Historical Target)





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Areas for Further Investigation (MEC Debris/Markings)





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Phase 3 - Data Collection Options

- **Sampling and analysis approach**
 - **Fill in data needs identified in Phase 2**
 - **Fulfill project objectives**
 - **Consider site conditions**
 - **Balances precision and accuracy vs. goal of SI program of collecting the appropriate amount of data**





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Proposed Sampling

Range	Soil Sample*	Sediment Sample*	Surface Water Sample*
Seal Island	6	3	3

***Analyzed for metals and explosives**

3 Background Samples will be collected and analyzed for metals



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Selection of Sample Locations

- ➡ ALL of Seal Island was used as a target. Samples were spaced to capture a COMPLETE picture of the island, focusing on suspect areas.
- Region 1
 - Soil Sample (1) Near Proposed Historical Target
 - Sediment Sample (1) Near Proposed Historical Target, in low region
- Region 2
 - Soil Samples (4) Near MEC Debris and Pock Marks
 - Sediment Sample (1) in low region
 - Sample All Major Surface Water (1)
- Region 3
 - Soil Sample (1) Near Location of Live 8-inch Round, low and level region
 - Sediment Sample (1) in low region
 - Sample All Major Surface Water (2)

Sampling of Seal Island

The map displays Seal Island and its surrounding waters, divided into three regions. The island is labeled 'Seal Island' and features 'Western Bight' and 'Squeaker'. To the east is 'Eastern Ledge'. The map includes a coordinate grid with Easting values from 519500 to 522500 and Northing values from 4895400 to 4900400. Sampling locations are indicated by callouts with sample IDs and descriptions:

- SI-R1-SW-02-01: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R1-SS-02-01: 1 Soil Sample Analyzed For Metals and Explosives
- SI-R2-SW-02-01: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R2-SS-02-01: 1 Soil Sample Analyzed For Metals and Explosives
- SI-R2-SW-02-02: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R2-SS-02-02: 1 Soil Sample Analyzed For Metals and Explosives
- SI-R2-SW-02-03: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R2-SS-02-03: 1 Soil Sample Analyzed For Metals and Explosives
- SI-R3-SW-02-01: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R3-SS-02-01: 1 Soil Sample Analyzed For Metals and Explosives
- SI-R3-SW-02-02: 1 Surface Water Sample Analyzed For Metals and Explosives
- SI-R3-SS-02-02: 1 Soil Sample Analyzed For Metals and Explosives



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Phase 4 - Finalize Data Collection Program

- **Phase 4 ties back into Phase I**
 - **Data Quality Objectives (DQOs) – in package**
 - **Relates data needs to sampling program and project objectives**
 - **Provides assurance that decisions are well supported with the right data obtained in the correct manner**





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Data Quality Objectives (DQOs)

- MEC- Collect the number of valid data points necessary to adequately assess the presence or absence of MEC using data collected by others if available.
- MC- Collect the number of samples necessary to adequately assess the presence or absence of MC.
- Employ approved laboratory procedures and methods along with data validation procedures to ensure sampling data can be used for its intended purpose.
- Evaluate results of the data collection activities to address whether the site warrants further response action or NDAI.



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DQOs (cont.)

- EPA Region IX and MEDEP PRGs have been identified for screening against sampling data (included as handout)



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The Path Forward

- Schedule
- Complete TPP Worksheets as a group
- Prepare TPP Memorandum
 - Capture what was discussed in TPP
 - Update project schedule (as per TPP)
 - Identify action items
 - TPP memorandum reviewed by Team Members and comments provided for Alion response
 - TPP memorandum finalized and signed by select stakeholders/Team Members (concurrence on what was discussed; does not signify agreement)



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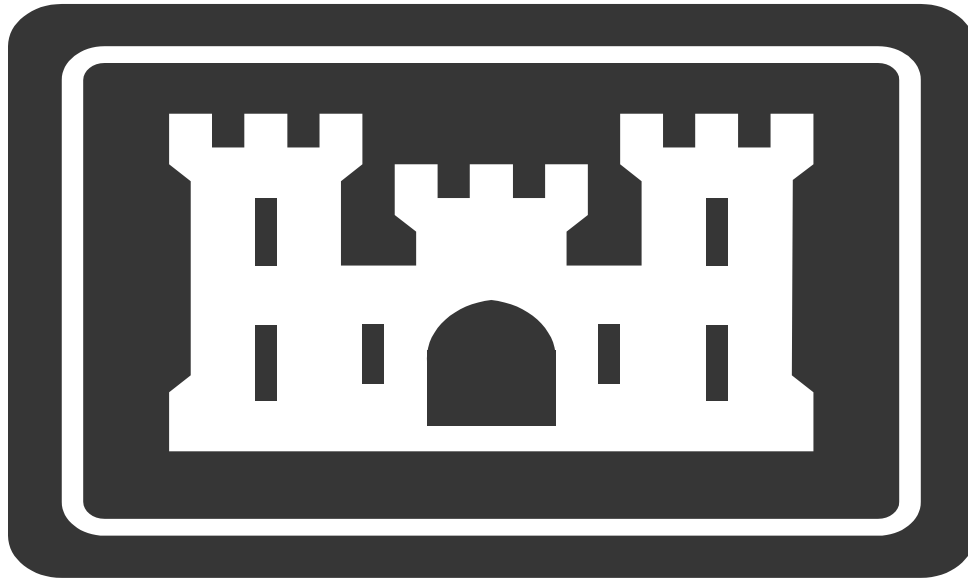
The Path Forward (cont.)

- Draft Site-Specific WP needs to be reviewed by Stakeholders, revised, and submitted to Stakeholders for response concurrence.
- Site-Specific Work Plan needs to be finalized before sampling.
- Status of Access Agreements (concurrent with TPP Memorandum and Site-Specific WP review).
- Closing Remarks.
- TPP Evaluation Form completed by all participants.



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TPP Worksheet Completion



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ATTACHMENT 5

Potential Chemical-Specific Data Quality Objectives and Preferred Maximum Method Quantitation Limits for Soil/Sediment

Analyte	Abbreviation	CAS #	Human Health Screening Values				Most Stringent Health Criteria (mg/kg)	Ecological Screening Values (Terrestrial) (mg/kg)	Eco SV Source	Preferred Maximum Method Quantitation Limit Soil (mg/kg)*	Lab MDL (mg/kg)	Lab Reporting Limit (mg/kg)
			Residential Soil (mg/kg)		Industrial Soil (mg/kg)							
			ME-DEP PRG	Region IX PRG	ME-DEP PRG	Region IX PRG						
Hexahydro-1,3,5-trinitro-1,3,5-triazine	RDX		-	4.4	-	16	4.4	5.8	A	2.2	0.177	0.200
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	HMX	2691-41-0	-	3100	-	31000	3100	43	H	22	0.0297	0.200
2,4,6-Trinitrotoluene (4)	2,4,6-TNT	118-96-7	-	16	-	57	16	8	B	2.0	0.0203	0.100
1,3,5-Trinitrobenzene	1,3,5-TNB	99-35-4	-	1800	-	18000	1800	0.38	F	0.19	0.00976	0.100
1,3-Dinitrobenzene	1,3-DNB	99-65-0	-	6.1	-	62	6.1	0.66	F	0.33	0.00524	0.100
2,4-Dinitrotoluene (1)	2,4-DNT	121-14-2	-	0.72	4	2.5	0.72	1.28	F	0.36	0.0335	0.100
2,6-Dinitrotoluene (1)	2,6-DNT	606-20-2	-	0.72	4	2.5	0.72	0.033	F	0.017	0.0178	0.100
2-Amino-4,6-dinitrotoluene	2-Am-DNT	35572-78-2	-	12	-	120	12	5.3	H	2.7	0.0251	0.100
2-Nitrotoluene	2-NT	88-72-2	-	0.88	-	2.2	0.88	4.1	H	0.44	0.0215	0.200
3-Nitrotoluene	3-NT	99-08-1	-	730	-	1000	730	5.3	H	2.7	0.0553	0.200
4-Amino-2,6-dinitrotoluene	4-Am-DNT	19406-51-0	-	12	-	120	12	-	-	6.0	0.0153	0.100
4-Nitrotoluene	4-NT	99-99-0	-	12	-	30	12	9.4	H	4.7	0.0901	0.200
Nitrobenzene	NB	98-95-3	-	20	520	100	20	40	C	10	0.0158	0.100
Nitroglycerin	NG	55-63-0	-	35	-	120	35	150	H	18	0.43	5.0
Methyl-2,4,6-trinitrophenylnitramine	Tetryl	479-45-8	-	610	-	6200	610	2	H	1.0	0.0105	0.200
Pentaerythritol Tetranitrate	PETN	78-11-5	-	-	-	-	-	21000	H	10500	0.03943	0.500
Aluminum	Al	7429-90-5	-	76000	-	100000	76000	50	C	25	2.67	20.0
Antimony	Sb	7440-36-0	-	31	-	410	31	0.30	A	0.15	0.32	2.0
Arsenic	As	7440-38-2	10	0.39	30	1.6	0.39	10	C	0.20	0.46	2.0
Barium	Ba	7440-38-2	10000	5400	10000	67000	5400	330	A	165	0.015	0.5
Beryllium	Be	7440-41-7	4	150	10	1900	4	1.1	C	0.55	0.0023	0.2
Cadmium	Cd	7440-43-9	27	37	23	450	27	1.6	C	0.80	0.023	0.6
Calcium	Ca	7440-70-2	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	5.24	100.0
Chromium (2)	Cr	7440-47-3	-	210	-	450	210	7.9	A	4.0	0.04	0.5
Cobalt	Co	7440-48-4	-	900	-	1900	900	13	A	6.5	0.064	0.5
Copper	Cu	7440-50-8	650	3100	600	41000	600	40	C	20	0.062	1.0
Iron	Fe	7439-89-6	-	23000	-	100000	23000	N/A	-	11500	2.47	15.0
Lead	Pb	7439-92-1	375	400	700	800	375	16	A	8.0	0.24	1.0
Magnesium	Mg	7439-95-4	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	1.71	25.0
Manganese	Mn	7439-96-5	-	1800	-	19000	1800	152	A	76	0.017	0.5
Mercury	Hg	7439-97-6	60	23	610	310	23	0.10	C	0.05	0.02	0.03
Molybdenum	Mo	7439-98-7	950	390	10000	5100	390	-	-	195	0.11	0.5
Nickel	Ni	7440-02-0	3800	1600	10000	20000	1600	38	A	19	0.14	1.0
Potassium	K	7440-09-7	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	2.15	25.0
Selenium	Se	7782-49-2	950	390	10000	5100	390	0.50	A	0.25	0.48	2.0
Silver	Ag	7440-22-4	950	390	10000	5100	390	2.0	C	1.0	0.048	0.3

Potential Chemical-Specific Data Quality Objectives and Preferred Maximum Method Quantitation Limits for Soil/Sediment

Analyte	Abbreviation	CAS #	Human Health Screening Values				Most Stringent Health Criteria (mg/kg)	Ecological Screening Values (Terrestrial) (mg/kg)	Eco SV Source	Preferred Maximum Method Quantitation Limit Soil (mg/kg)*	Lab MDL (mg/kg)	Lab Reporting Limit (mg/kg)
			Residential Soil (mg/kg)		Industrial Soil (mg/kg)							
			ME-DEP PRG	Region IX PRG	ME-DEP PRG	Region IX PRG						
Sodium	Na	7440-23-5	N/A	N/A	N/A	N/A	N/A	N/A	-	N/A	24.20	250.0
Strontium	Sr	7440-24-6	-	47000	-	100000	47000	-	-	23500	NA	2
Thallium	Tl	7440-28-0	-	5.2	-	67	5.2	1.0	C	0.50	0.58	3.0
Titanium	Ti	7440-32-6	-	100000	-	100000	100000	-	-	50000	0.034	2.5
Vanadium	V	7440-62-2	-	78	-	1000	78	2.0	C	1.0	0.063	1.0
Zinc	Zn	7440-66-6	1500	23000	1500	100000	1500	50	C	25	0.61	2.0
Zirconium	Zr	7440-67-7	-	-	-	-	-	-	-	-	NA	20

* If laboratory cannot meet any of the preferred QLs with routine SW846 methodology (as supported by MDLs that are no greater than 1/3 QL), laboratory's QL must be identified in Laboratory submittal as failing to meet the QL. Some screening values cannot be obtained with routine methodology to the QL. In those cases, the QL achievable with a routine SW846 methodology would be accepted.

(1) Carcinogenic DNT mixture values used if more conservative than noncarcinogenic isomer-specific values

(2) Total chromium values used if available. All Region III values are based on hexavalent chromium.

(3) Lower of the industrial values provided (industrial w/o dermal vs. industrial/outdoor)

(4) Noncancer RBCs at an HI of 0.1 provided because screening at an HI of 0.1, in accordance with Region III guidance, will result in noncancer RBCs being lower than the cancer RBCs

Region IX PRGs, dtd 28 December 2004

ME-DEP PRGs, dtd May 1996

Eco Screening Value Sources:

A USEPA EcoSSLs

B Los Alamos Nuclear Lab Screening Level

C USEPA Region IV Eco Screening Values

D San Francisco Regional Water Quality Control Board Surface Water Screening Values

E USEPA Region III Freshwater Screening Benchmarks

F USEPA Region V Ecological Data Quality Levels

G Talmage, et. al. 1999

H Los Alamos National Laboratory (LANL), ECORISK Database, 2004

Potential Chemical-Specific Data Quality Objectives and Preferred Maximum Method Quantitation Limit for Surface Water/ Groundwater														
Analyte	Abbreviation	CAS #	Human Health Screening Values				Federal Ambient Water Quality (ug/L)		Ecological Screening Values (ug/L)	Eco SV Source	Most Stringent Criteria (ug/L)	Preferred Maximum Method Quantitation Limit Aqueous (ug/L)*	Lab MDL (mg/kg)	Lab Reporting Limit (mg/kg)
			Tap Water (ug/L)		Federal Drinking Water Criteria (ug/L)									
			ME-DEP MEG	Region IX PRG	MCLs	HA	CMC	CCC						
Hexahydro-1,3,5-trinitro-1,3,5-triazine	RDX	121-82-4	-	0.61	-	2	4000	190	360	E	0.61	0.31	0.081	0.52
Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine	HMX	2691-41-0	-	1800	-	400	-	330	150	E	150	75	0.14	0.52
2,4,6-Trinitrotoluene (4)	2,4,6-TNT	118-96-7	3.5	2.2	-	2	560	<40	100	E	1.8	0.90	0.016	0.26
1,3,5-Trinitrobenzene	1,3,5-TNB	99-35-4	-	1100	-	-	30	14	11	G	11	5.5	0.12	0.26
1,3-Dinitrobenzene	1,3-DNB	99-65-0	-	3.6	-	1	110	30	20	G	1.0	0.50	0.037	0.26
2,4-Dinitrotoluene (1)	2,4-DNT	121-14-2	0.5	0.099	-	5 (6)	0.11	-	310	C	0.098	0.049	0.073	0.26
2,6-Dinitrotoluene (1)	2,6-DNT	606-20-2	0.5	0.099	-	5 (6)	18,500	-	81	E	0.098	0.049	0.11	0.26
2-Amino-4,6-dinitrotoluene	2-Am-DNT	35572-78-2	-	7.3	-	-	-	-	20	G	7.3	3.7	0.066	0.26
2-Nitrotoluene	2-NT	88-72-2	-	0.049	-	-	-	-	-	-	0.049	0.023	0.20	0.52
3-Nitrotoluene	3-NT	99-08-1	-	120	-	-	-	-	750	E	120	60	0.31	0.52
4-Amino-2,6-dinitrotoluene	4-Am-DNT	19406-51-0	-	7.3	-	-	-	-	-	-	7.3	3.7	0.13	0.26
4-Nitrotoluene	4-NT	99-99-0	-	0.66	-	-	-	-	1900	E	0.62	0.31	0.36	0.52
Nitrobenzene	NB	98-95-3	3.5	3.4	-	-	27,000		270	C	3.4	1.7		0.057
Nitroglycerin	NG	55-63-0	-	4.8	-	5	1,700	200	138	E	4.8	2.4	0.081	2.00
Methyl-2,4,6-trinitrophenylnitramine	Tetryl	479-45-8	-	360	-	-	-	-	5800	H	360	75	0.18	0.52
Pentaerythritol Tetranitrate	PETN	78-11-5	-	-	-	-	-	-	85000	E	85000	42500	0.08	1.30
Aluminum	Al	7429-90-5	1430	36000	50 (5)	-	-	-	-	-	50	25	25.4	200
Antimony	Sb	7440-36-0	3	15	6	-	-	-	6.0	D	3.0	3.0	2.5	20
Arsenic	As	7440-38-2	10	0.045	10	-	-	-	0.14	D	0.045	0.023	2.4	20
Barium	Ba	7440-38-2	2000	2600	2000	-	-	-	1000	D	1000	500	0.19	5.0
Beryllium	Be	7440-41-7	-	73	4	-	-	-	2.7	D	2.7	1.4	0.042	2.0
Cadmium	Cd	7440-43-9	3.5	18	5	-	-	-	2.2	D	2.2	1.1	0.17	6.0
Calcium	Ca	7440-70-2	-	-	-	-	-	-	-	-	-	-	77.7	1000
Chromium (2)	Cr	7440-47-3	-	110	100	-	-	-	50	D	50	25	0.45	5.0
Cobalt	Co	7440-48-4	-	730	-	-	-	-	3.0	D	3.0	1.5	0.72	5.0
Copper	Cu	7440-50-8	1300	1500	1300/1 000 (5)	-	-	-	9.0	D	9.0	4.5	1.4	10
Iron	Fe	7439-89-6	-	11000	300 (5)	-	-	-	-	-	300	150	17.4	150
Lead	Pb	7439-92-1	10	-	15	-	-	-	2.5	D	2.5	1.3	2.1	10
Magnesium	Mg	7439-95-4	-	-	-	-	-	-	-	-	-	-	11.6	250
Manganese	Mn	7439-96-5	500	880	50 (5)	300	-	-	-	-	50	25	0.18	5.0
Mercury	Hg	7439-97-6	2	11	2	-	-	-	0.77	D	0.77	0.39	0.10	0.2
Molybdenum	Mo	7439-98-7	35	180	-	40	-	-	-	-	35	20	1.5	5.0
Nickel	Ni	7440-02-0	140	730	-	100	-	-	52	D	52	26	0.87	10
Potassium	K	7440-09-7	-	-	-	-	-	-	-	-	-	-	12.6	250

Potential Chemical-Specific Data Quality Objectives and Preferred Maximum Method Quantitation Limit for Surface Water/ Groundwater														
Analyte	Abbreviation	CAS #	Human Health Screening Values				Federal Ambient Water Quality (ug/L)		Ecological Screening Values (ug/L)	Eco SV Source	Most Stringent Criteria (ug/L)	Preferred Maximum Method Quantitation Limit Aqueous (ug/L)*	Lab MDL (mg/kg)	Lab Reporting Limit (mg/kg)
			Tap Water (ug/L)		Federal Drinking Water Criteria (ug/L)									
			ME-DEP MEG	Region IX PRG	MCLs	HA	CMC	CCC						
Selenium	Se	7782-49-2	35	180	50	-	-	-	5.0	D	5.0	2.5	3.4	20
Silver	Ag	7440-22-4	35	180	100 (5)	100	-	-	0.34	D	0.34	0.17	0.71	3.0
Sodium	Na	7440-23-5	20000	-	20000 (8)	-	-	-	-	-	20000	10000	183	2500
Strontium	Sr	7440-24-6	4200	22000	-	4000	-	-	-	-	4000	2000	0.60	2
Thallium	Tl	7440-28-0	0.5	2.4	2	-	-	-	2.0	D	0.5	1.0	4.8	30
Titanium	Ti	7440-32-6	-	150000	-	-	-	-	-	-	150000	75000	0.3	25
Vanadium	V	7440-62-2	-	36	-	-	-	-	19	D	19	9.5	0.52	10
Zinc	Zn	7440-66-6	2000	11000	5000 (5)	2000	-	-	120	D	120	60	2.4	20
Zirconium	Zr	7440-67-7	-	-	-	-	-	-	-	-	-	-	0.55	20

* If laboratory cannot meet any of these QLs with routine SW846 methodology (as supported by MDLs that are no greater than 1/3 QL), laboratory's QL must be identified in Laboratory submittal as failing to meet the QL. Some screening values cannot be obtained with routine methodology to the QL.

- (1) Carcinogenic DNT mixture values used if more conservative than noncarcinogenic isomer-specific values
- (2) Total chromium values used if available.
- (3) Lower of the industrial values provided (industrial w/o dermal vs. industrial/outdoor)
- (4) Noncancer RBCs at an HI of 0.1 provided because screening at an HI of 0.1, in accordance with Region III guidance, will result in noncancer RBCs being lower than the cancer RBCs
- (5) All MCLs are primary except those with this footnote.
- (6) All HAs are lifetime except those footnoted, which are based on 10-4 cancer risk
- (7) Drinking Water Equivalent Level
- (8) Drinking Water Advisory

Sources:

- A USEPA EcoSSLs
- B Los Alamos Nuclear Lab Screening Level
- C USEPA Region IV Eco Screening Values
- D San Francisco Regional Water Quality Control Board Surface Water Screening Values
- E USEPA Region III Freshwater Screening Benchmarks
- F USEPA Region V Ecological Data Quality Levels
- G Talmage, et. al. 1999

Region IX PRGs, dtd 28 December 2004
ME-Maximum Exposure Guidelines (MEGs), dtd 20 January 2000

ATTACHMENT 6

Technical Project Planning

Phase I MFR Worksheet

Author(s): Alion Team

Latest Revision Date: February 16, 2006

Reviewer:

Review Date: February 9, 2006

Location: Portland, Maine

Site(s): Seal Island, Knox County, Maine

Project: Seal Island Gunnery Range

(Attach Phase I MFR to PMP)

TPP Team			EM 200-1-2, Paragraph 1.1.1
Decision Maker			
Customer	USACE		
Project Manager	Robert Williams--USACE-Baltimore District, Sheila Holt -- USACE-New England District		
Team Leaders	Roger Azar--Program Manager, Tim Reese--Project Manager		
Regulators	Maine Department of Environmental Protection		
Stakeholders	Maine Coastal Islands National Wildlife Refuge - US Fish and Wildlife Service		
Data Types	Data User	Data Gatherer	
Compliance / Regulatory (CR)	USAESCH, USACE Baltimore District, USACE New England District	Alion Team	
Demographics/Land Use (LU)	USAESCH, USACE Baltimore District, USACE New England District	Alion Team	
Site Conditions (SC)	USAESCH, USACE Baltimore District, USACE New England District	Alion Team	
MEC	USAESCH	Alion Team	

CUSTOMER'S GOALS		EM 200-1-1, Paragraph 1.1.2
Future Land Use(s) @ Site	Issues and Regulatory Compliance Status	Site-specific Closeout Goal (if applicable)
National Wildlife Refuge	Potential for metals and explosives in soil as well as munitions and explosives of concern (MEC)	

CUSTOMER'S GOALS (continued)	EM 200-1-1, Paragraph 1.1.2
Site Closeout Statement	
Achieving the walk-away goal, or final condition of the site, as envisioned by the customer. The final condition of the site includes safe access following any remediation, maintenance, and monitoring for activities that are consistent with the current use of the site.	
Customer's Schedule Requirements	
No field activities from May 1 thru August 31, 2006.	
Customer's Site Budget	
N/A.	

IDENTIFY SITE APPROACH		
EXISTING SITE INFORMATION & DATA EM 200-1-2, Paragraph 1.1.3 and 1.2.1		
Attachment(s) to Phase I MFR	Located at Repository	Preliminary Conceptual Site Model
2003 Archive Search Report (ASR)	USACE, Baltimore	Yes
2004 Supplemental ASR	USACE, Baltimore	Yes
1988 Inventory Project Report (INPR)	USACE, Baltimore	Yes
POTENTIAL POINTS OF COMPLIANCE EM 200-1-2, Paragraph 1.2.1.3		
Maine DEP Regulations (within boundaries of areas of concern)		
Region IX USEPA (within boundaries of areas of concern)		
MEDIA OF POTENTIAL CONCERN EM 200-1-2, Paragraph 1.2.1.4		
Soil		
Sediment		
Surface Water		
SITE OBJECTIVES EM 200-1-2, Paragraph 1.2.2		
Determine presence of MEC/MC		
Determine NDAI or further action (see attached Project Objectives worksheet)		
REGULATOR AND STAKEHOLDER PERSPECTIVES EM 200-1-1, Paragraph 1.2.3		
Regulators	Community Interests	Others
PROBABLE REMEDIES EM 200-1-2, Paragraph 1.2.4		
Detonation or removal of suspect MEC found during the site investigation.		
Removal of residual MEC from the site, treatment of MC via removal, onsite treatment, and engineering/institutional controls as appropriate to reduce the risk to future site users.		
EXECUTABLE STAGES TO SITE CLOSEOUT EM 200-1-2, Paragraph 1.2.5		
Site Inspection		
Remedial Investigation/Feasibility Study		
Proposed Plan		
ROD/Decision Document		
Remedial Design		
Remedial Action		
Removal Action (if necessary)		

IDENTIFY CURRENT PROJECT		
SITE CONSTRAINTS AND DEPENDENCIES		EM 200-1-2, Paragraph 1.3.1
<u>Administrative Constraints and Dependencies</u>		
SI needs to be completed as soon as possible to meet program needs.		
Special Use Permit need to be in place prior to sampling.		
<u>Technical Constraints and Dependencies</u>		
Need MEC avoidance for sampling. Need to work with FWS personnel for access.		
Need to abide by Health and Safety Plan.		
FWS will provide transport to site and guidance for sample locations.		
<u>Legal and Regulatory Milestones and Requirements</u>		
No agreements or permits in place between USACE or Owner and Regulatory Personnel.		
Regulatory evaluation of SI work plan and reporting of SI results and recommendations.		
CURRENT EXECUTABLE STAGE		EM 200-1-2, Paragraph 1.3.3
Site Inspection		
Basic (For Current Projects)	Optimum (For Future Projects)	Excessive (Objectives that do not lead to site closeout)
Sample collection effort minimal MEC analysis minimal		

Acronyms

EM--Engineer Manual (see www.usace.army.mil/inet/usace-docs/)

NDAI--No Department of Defense Action Indicated

RA--Removal Action

RAC--Risk Assessment Code type impact analysis conducted during INPR, ASR, and Supplemental ASR

TPP--Technical Project Planning

MEC - Munitions and Explosives of Concern

MC - Munitions Constituents

PROJECT OBJECTIVES WORKSHEET

SITE: **Seal Island**

PROJECT: **Former Seal Island Gunnery Range**

Site Objective ^a				Data Needs ^d	Data Collection Methods	Project Objective Classification ^e	
Number	Executable Stage ^b		Description ^c				Source
	Current	Future					
1	Yes		Presence/Absence of MEC and MC	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic
2	Yes		Eliminate from further consideration those releases that pose no significant threat to public health or the environment by collecting adequate samples to assess the presence or absence of MC at the site	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic
3	Yes		Determine the potential need for a TCRA by collecting data from previous investigations/reports, site visits, and geophysics	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic
4	Yes		Collect, or develop, additional data, as appropriate, for Hazard Ranking System (HRS) scoring by Environmental Protection Agency (EPA)	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic
5	Yes		Collect data, as appropriate, to characterize the release for effective and rapid initiation of the Remedial Investigation and Feasibility Study (RI/FS)	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic
6	Yes		Collect the additional data necessary to complete the Munitions Response Site Prioritization Protocol (MRSP)	ASR, Public	CR, LU, SC, UXO	MEC Visual inspection, MC Sampling	Basic

a Refer to EM 200-1-2, Paragraph 1.2.2

b Refer to EM 200-1-2, Paragraph 1.2.5

c For example, Meeting with Customer/stakeholder/Regulator, State Regulation____,

d Data Needs: **CR**-Compliance/Regulatory, **LU**-Land Use/Demographics, **SC**-Site Conditions, and **UXO**-OE UXO

e Classification of project objectives can only occur after the current project has been identified. Refer to EM 200-1-2, Paragraph 1.3.3.

Acronyms

EM-Engineer Manual (see www.usace.army.mil/inet/usace-docs/)

NDAI--No Department of Defense Action Indicated

RA--Removal Action

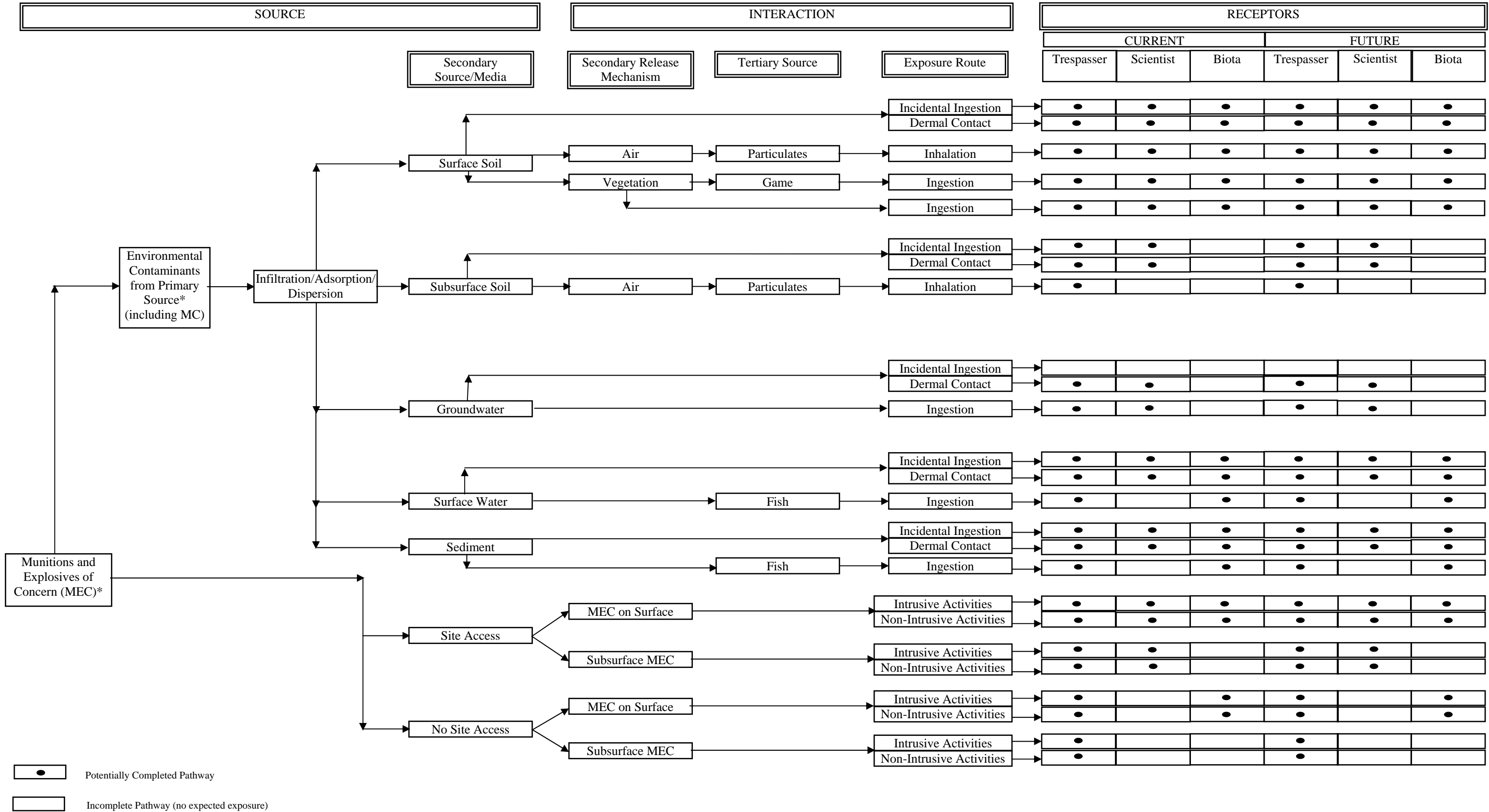
RAC--Risk Assessment Code

TPP-Technical Project Planning

MEC - Munitions and Explosives of Concern

MC - Munitions Constituents

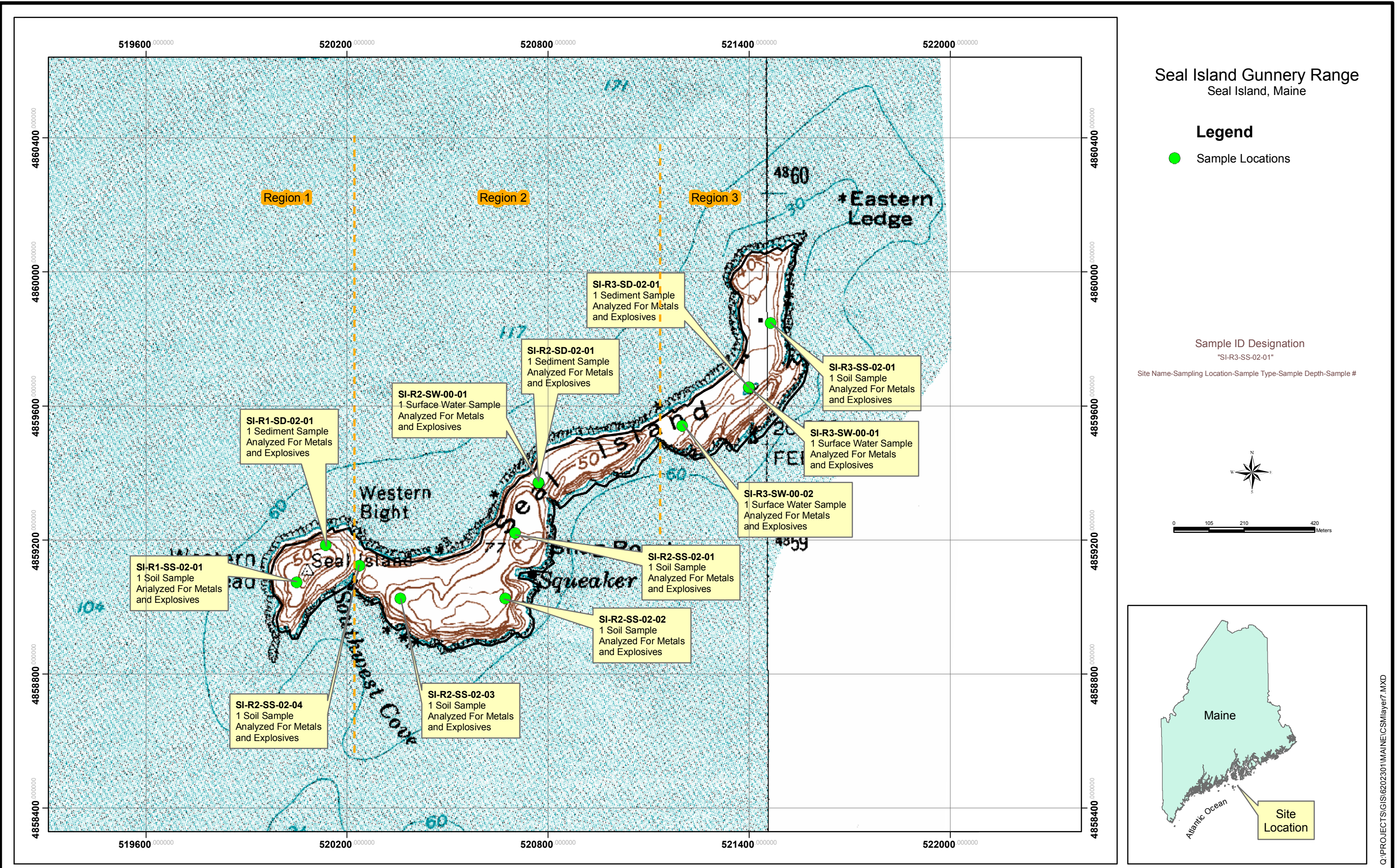
ATTACHMENT 7



Impact to sediment may also occur from surface soil via runoff of particulates.
A separate risk for surface soil and subsurface soil may be combined to represent risk from total soil for some receptors.
Impact to surface water may also occur from infiltration of groundwater.
*Primary sources will vary by site but are expected to include open burn/open detonation areas, disposal/burial areas, impact areas, and firing areas, etc.

DRAFT INTEGRATED CONCEPTUAL SITE MODEL FOR
THE SEAL ISLAND MMRP FUDS SITE

ATTACHMENT 8



CSM Layer 7. Sampling Locations

ATTACHMENT 9

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session:			✓	✗	
a. Objectives/goals were clear before you attended.			✓	✓	
b. Objectives/goals clarified at start of the session.					✓
c. Objectives/goals met during the session.					✓
2. Open Communication:					
a. Everyone shared in the discussion on a fairly equal basis.					✓
b. We were able to disagree freely and work through our disagreement.					✓
c. My concerns/questions were expressed.					✓
d. My concerns/questions were acknowledged/ answered.					✓
3. Session Accommodations:					
a. Room was comfortable.					✓
b. Overhead projector was used effectively for displaying/documenting session discussions.					✓
c. Poster board was used effectively for documenting session discussions.			NA		
d. Computer graphics were used effectively for presenting site information					✓
e. Handout material aided in the session discussions.					✓
4. Facilitator:					
a. Facilitator explained TPP process and used the TPP concepts throughout sessions.					
b. Facilitator encouraged individual participation.					
c. Facilitator summarized/documented discussions.					
d. Facilitator kept discussions focused on session objectives/ goals.			NA		
e. Facilitator demonstrated effective platform skills.					
f. Facilitator was unbiased.					
5. Overall Rating:					
a. TPP Session was beneficial.					✓
b. TPP Session resulted in progress on the project.					✓
c. TPP is an effective planning tool					✓

<p>What was the most beneficial part of the TPP session for you?</p> <p>Laying out what's needed to achieve site cleanup - it's very clear what's going to happen and what needs to happen</p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p>Same as above</p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p> <p>It was just right</p>	
<p>What was your reason for participating in this TPP session?</p> <p>As PM for MEDER I have to be completely in the loop</p>	
<p>What impact will this session have on the execution of this project?</p> <p>Project could not have been executed w/out session</p>	
<p>General Comments:</p> <p>Session Format:</p> <p>Good</p> <p>Supporting material such as handouts:</p> <p>excellent</p> <p>Facilitator:</p> <p>Other:</p> <p>Roger did an excellent job to make sure we met our goals</p>	
Name:	Organization:

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.	✓				✓ ✓ ✓
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.					✓ ✓ ✓ ✓
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.					✓ ✓ ✓ ✓
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documentated discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.					✓ ↓ ↓ ↓ ↓ ↓
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool					✓ ↓ ↓

<p>What was the most beneficial part of the TPP session for you?</p> <p>EXPLANATION OF INTENDED WORK REVIEW OF SITE HISTORY ALSO HELPFUL</p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p>IDENTIFICATION OF OBJECTIVES + LIMITATIONS</p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p>	
<p>What was your reason for participating in this TPP session?</p> <p>MEDEP IS REGULATORY AGENCY FOR PROJECT</p>	
<p>What impact will this session have on the execution of this project?</p> <p>CLARIFIES INTENDED EXECUTION.</p>	
<p>General Comments:</p> <p>Session Format:</p> <p>Supporting material such as handouts:</p> <p>Facilitator:</p> <p>Other:</p>	
Name	Organization:

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.	✓				✓
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.	✓	✓		✓	✓ ✓ ✓
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.	✓	✓		✓	✓ ✓ ✓
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documented discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.	✓	✓		✓	✓ ✓ ✓
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool	✓				✓ ✓ ✓

What was the **most** beneficial part of the TPP session **for you**?

Explanation of process

What was the **most** beneficial part of the TPP session **for your project team**?

Project overall

What part(s) of the TPP session could be improved to be more beneficial **for you or your project team**?

What was your reason for participating in this TPP session?

Stakeholder

What impact will this session have on the execution of this project?

Improve information on Island

General Comments:

Session Format:

Good

Supporting material such as handouts:


Good

Facilitator:

Good

Other:

Name: 

Organi 

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.					✓
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.					✓
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.					✓
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documented discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.					✓
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool					✓

<p>What was the most beneficial part of the TPP session for you?</p> <p><i>Increased knowledge of site in relation to project needs</i></p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p><i>Open communications w/ all stakeholders</i></p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p>	
<p>What was your reason for participating in this TPP session?</p> <p><i>Responsible for Environmental Compliance</i></p>	
<p>What impact will this session have on the execution of this project?</p> <p><i>A knowledge A efficiency</i></p>	
<p>General Comments:</p> <p>Session Format: <i>ok</i></p> <p>Supporting material such as handouts: <i>good</i></p> <p>Facilitator: <i>ok</i></p> <p>Other:</p>	
Name: <i>[redacted]</i>	Organizati <i>[redacted]</i>

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session:					X
a. Objectives/goals were clear before you attended.					X
b. Objectives/goals clarified at start of the session.					X
c. Objectives/goals met during the session.					X
2. Open Communication:					X
a. Everyone shared in the discussion on a fairly equal basis.					X
b. We were able to disagree freely and work through our disagreement.					X
c. My concerns/questions were expressed.					X
d. My concerns/questions were acknowledged/ answered.					X
3. Session Accommodations:					X
a. Room was comfortable.					X
b. Overhead projector was used effectively for displaying/documenting session discussions.					X
c. Poster board was used effectively for documenting session discussions.					NA
d. Computer graphics were used effectively for presenting site information					X
e. Handout material aided in the session discussions.					X
4. Facilitator:					X
a. Facilitator explained TPP process and used the TPP concepts throughout sessions.					X
b. Facilitator encouraged individual participation.					X
c. Facilitator summarized/documented discussions.					X
d. Facilitator kept discussions focused on session objectives/ goals.					X
e. Facilitator demonstrated effective platform skills.					X
f. Facilitator was unbiased.					X
5. Overall Rating:					X
a. TPP Session was beneficial.					X
b. TPP Session resulted in progress on the project.					X
c. TPP is an effective planning tool					X

<p>What was the most beneficial part of the TPP session for you?</p> <p><i>OVERALL DISCUSSION OF PROCESS/SCHEDULE</i></p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p><i>GENERAL DISCUSSION AMONG STAKEHOLDERS</i></p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p> <p><i>ALL WENT WELL</i></p>	
<p>What was your reason for participating in this TPP session?</p> <p><i>FEDS PROGRAM MANAGER</i></p>	
<p>What impact will this session have on the execution of this project?</p> <p><i>IT WILL EXPEDITE IT</i></p>	
<p>General Comments:</p> <p>Session Format:</p> <p>Supporting material such as handouts:</p> <p>Facilitator:</p> <p>Other:</p>	
<p>Name: <i>[REDACTED]</i></p>	<p>Organization: <i>[REDACTED]</i></p>

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.					✓
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.					✓
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.					✓
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documented discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.					✓
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool					✓

What was the **most** beneficial part of the TPP session **for you**?

Handouts & Professional Presentation

What was the **most** beneficial part of the TPP session **for your project team**?

Presentation & Discussion w/ stake holders.

What part(s) of the TPP session could be improved to be more beneficial **for you or your project team**?

N/A

What was your reason for participating in this TPP session?

To become familiar w/ mmp process & to ensure NAB is in agreement w/ project direction / approach.

What impact will this session have on the execution of this project?

Will result in expedited smooth project with buy in from all parties.

General Comments:

Session Format: *Great*

Supporting material such as handouts: *Great*

Facilitator: *Outstanding*

Other:

Organization:

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.					✓✓✓
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.					✓✓✓✓
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.					✓✓✓✓
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documented discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.					✓✓✓✓✓
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool					✓✓✓

What was the most beneficial part of the TPP session for you ?	
all	
What was the most beneficial part of the TPP session for your project team ?	
all	
What part(s) of the TPP session could be improved to be more beneficial for you or your project team ?	
na	
What was your reason for participating in this TPP session?	
What impact will this session have on the execution of this project?	
good	
General Comments:	
Session Format:	
Supporting material such as handouts:	
Facilitator:	
Other:	
Name:	Organization:

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator:

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session: a. Objectives/goals were clear before you attended. b. Objectives/goals clarified at start of the session. c. Objectives/goals met during the session.				X	
2. Open Communication: a. Everyone shared in the discussion on a fairly equal basis. b. We were able to disagree freely and work through our disagreement. c. My concerns/questions were expressed. d. My concerns/questions were acknowledged/ answered.					X
3. Session Accommodations: a. Room was comfortable. b. Overhead projector was used effectively for displaying/documenting session discussions. c. Poster board was used effectively for documenting session discussions. d. Computer graphics were used effectively for presenting site information e. Handout material aided in the session discussions.				X	
4. Facilitator: a. Facilitator explained TPP process and used the TPP concepts throughout sessions. b. Facilitator encouraged individual participation. c. Facilitator summarized/documented discussions. d. Facilitator kept discussions focused on session objectives/ goals. e. Facilitator demonstrated effective platform skills. f. Facilitator was unbiased.					X
5. Overall Rating: a. TPP Session was beneficial. b. TPP Session resulted in progress on the project. c. TPP is an effective planning tool					X

<p>What was the most beneficial part of the TPP session for you?</p> <p>Clarifying goals, objectives and methods of study.</p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p>same</p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p> <p>Materials received in advance for review</p>	
<p>What was your reason for participating in this TPP session?</p> <p>owner</p>	
<p>What impact will this session have on the execution of this project?</p> <p>Hopefully assist with better communication and collaboration throughout the project.</p>	
<p>General Comments:</p> <p>Session Format:</p> <p>Supporting material such as handouts:</p> <p>Facilitator:</p> <p>Other:</p>	
<p>Name:</p> <p>[Redacted]</p>	<p>Organization:</p> <p>[Redacted]</p>

**TECHNICAL PROJECT PLANNING (TPP)
FACILITATED SESSION**

PROJECT: Seal Island
LOCATION: Portland, ME

DATES: 9 January 2006
Facilitator: *Roger Azar*

RATING CODE:

1- Strongly Disagree 2 3 4 5-Strongly Agree

ITEM	1	2	3	4	5
1. Objectives/Goals of the TPP session:					
a. Objectives/goals were clear before you attended.	✓				
b. Objectives/goals clarified at start of the session.	✓				
c. Objectives/goals met during the session.					✓
2. Open Communication:					
a. Everyone shared in the discussion on a fairly equal basis.					✓
b. We were able to disagree freely and work through our disagreement.					✓
c. My concerns/questions were expressed.					✓
d. My concerns/questions were acknowledged/ answered.					✓
3. Session Accommodations:					
a. Room was comfortable.					✓
b. Overhead projector was used effectively for displaying/documenting session discussions.					✓
c. Poster board was used effectively for documenting session discussions.					✓
d. Computer graphics were used effectively for presenting site information					✓
e. Handout material aided in the session discussions.					✓
4. Facilitator:					
a. Facilitator explained TPP process and used the TPP concepts throughout sessions.					✓
b. Facilitator encouraged individual participation.					✓
c. Facilitator summarized/documented discussions.					✓
d. Facilitator kept discussions focused on session objectives/ goals.					✓
e. Facilitator demonstrated effective platform skills.					✓
f. Facilitator was unbiased.					✓
5. Overall Rating:					
a. TPP Session was beneficial.			✓		
b. TPP Session resulted in progress on the project.					✓
c. TPP is an effective planning tool					✓

<p>What was the most beneficial part of the TPP session for you?</p> <p><i>Description of proposed project.</i></p>	
<p>What was the most beneficial part of the TPP session for your project team?</p> <p><i>Ditto</i></p>	
<p>What part(s) of the TPP session could be improved to be more beneficial for you or your project team?</p> <p><i>Material prior to meeting</i></p>	
<p>What was your reason for participating in this TPP session?</p> <p><i>I was invited</i></p>	
<p>What impact will this session have on the execution of this project?</p> <p><i>positive</i></p>	
<p>General Comments:</p> <p>Session Format: <i>Very Good.</i></p> <p>Supporting material such as handouts: <i>Very Good.</i></p> <p>Facilitator: <i>Very Good</i></p> <p>Other:</p>	
Name: <i>[Redacted]</i>	Organization: <i>[Redacted]</i>

ATTACHMENT 10

