



TETRA TECH EM INC.

August 21, 2009

Dear RAB Members,

On behalf of the Navy, enclosed please find the June 3, 2009 final RAB meeting minutes for your information and records.

If there are any questions regarding the enclosed minutes, please contact Carolyn Hunter at (510) 302-6297 or Carolyn.hunter@ttemi.com.

Sincerely,

Carolyn Hunter
Community Relations Specialist
Tetra Tech EMI

FINAL
MEETING MINUTES
RESTORATION ADVISORY BOARD
INLAND AREA ENVIRONMENTAL RESTORATION PROGRAM
FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD
CONCORD, CALIFORNIA
JUNE 3, 2009

These minutes reflect general issues raised, agreements reached, and action items identified at the Restoration Advisory Board (RAB) meeting for the Inland Area Environmental Restoration (ER) Program at the Former Naval Weapons Station Seal Beach Detachment Concord (NAVWPNSTA Concord), California. The meeting was held from 6:00 p.m. to 7:40 p.m. on June 3, 2009, at the Concord Police Station in Concord, California. Agreements and action items are described by topic under [Sections I](#) through [V](#) and are summarized in [Section VI](#). A list of participants and their affiliations is included as [Attachment A](#), and the meeting agenda is included as [Attachment B](#). Handouts at the meeting also are included as attachments to these minutes.

I. WELCOME, INTRODUCTIONS, PUBLIC COMMENT, AND AGENDA APPROVAL

Welcome and Introductions

The RAB Community Co-Chair, Mary Lou Williams (Concord resident), called the RAB meeting to order and initiated a round of introductions for attendees.

Public Comments

Ms. Williams opened the floor to public comments. No comments were received.

II. APRIL 2009 RAB MEETING MINUTES APPROVAL

Ms. Williams asked the RAB for comments on minutes from the RAB meeting held on April 1, 2009. No comments were received. The Navy will finalize the minutes and distribute them to the RAB.

Action Item

1. The Navy will finalize and distribute the RAB meeting minutes for April 1, 2009.

III. RAB ANNOUNCEMENTS

Ms. Williams opened the floor to RAB announcements.

Sarah Ann Moore (Department of the Navy Deputy Base Closure Manager) announced that the new Base Realignment and Closure Environmental Coordinator (BEC) for NAVWPNSTA Concord will begin on June 29, 2009.

RAB Open Comment Period

Edi Birsan (Concord resident) said that he participated in a series of hikes in the Inland Area hosted by Save Mount Diablo and the City of Concord. Bruce Knopf (City of Concord) said it was a well-attended event, and there were 30 community members in each hiking group.

IV. REMEDIAL PROJECT MANAGERS (RPM) UPDATE

Navy Update

Charles Perry (Navy Lead RPM) said the Navy RPM Update handout is available for the RAB to review (see [Attachment C](#)). The Navy will answer any questions from the RAB on the RPM Update handout after the presentation to conserve enough time to review the Historical Radiological Assessment (HRA).

U.S. Environmental Protection Agency (EPA) Update

Phillip Ramsey (EPA RPM) said EPA provided comments to the Navy on May 14, 2009, on the Draft Site 22 Proposed Plan.

San Francisco Bay Regional Water Quality Control Board (Water Board)

Alan Friedman (Water Board) said the Water Board hosted the Navy and regulatory agencies on May 27, 2009, to review the HRA presentation that will be provided to the RAB.

City of Concord

Mr. Knopf announced that he accepted a position with the City of Santa Clara, and that this RAB meeting will be his last. Until a replacement for Mr. Knopf is selected, Michael Wright will be the point of contact from the City of Concord.

V. HRA PRESENTATION

Julie Crosby (Navy RPM) introduced the HRA presentation. Matt Slack (Navy Radiological Affairs Support Office [RASO]) and John Polyak (New World Technologies) presented the HRA ([Attachment D](#)).

Mr. Knopf commended the Navy for a clear presentation outlining the components of the HRA. Mr. Knopf asked what types of munitions are considered in the HRA. Laurie Lowman (RASO) responded the HRA covers radioactive munitions and nuclear weapons. All weapons have been removed from NAVWPNSTA Concord. The Department of Energy (DOE) is responsible for all nuclear weapons in the United States, regardless of whether they are housed at a Navy base. Any records of nuclear weapons stored at NAVWPNSTA Concord are classified.

Ms. Lowman added the Navy plans to collect swipe samples in all of the bunkers to evaluate whether tritium is present. Tritium may be present in areas where radiological materials have

been stored. Mr. Birsan asked if the Navy will collect swipe samples at the Group 2 Bunkers in the Site 22A magazines. Ms. Lowman confirmed that every bunker in the Group 2 magazines at NAVWPNSTA Concord will be sampled.

Mr. Birsan asked when the Navy plans to conduct the HRA field work. Ms. Lowman said the Navy plans to conduct HRA field work in 2010.

Mr. Birsan asked if the NAVWPNSTA Concord Commanding Officer was contacted and interviewed as part of the HRA. Ms. Lowman responded that, as with other HRAs that have been developed, the Commanding Officer was contacted and did not have any specific information to provide RASO.

Mr. Birsan asked if the Navy reviewed the purchase order records for NAVWPNSTA Concord to see if there was any information to add to the HRA. Mr. Polyak confirmed that he reviewed all of the purchase orders as part of the HRA research.

Mr. Birsan said atomic fuel rods were transported through NAVWPNSTA Concord in the early 1990s. Mr. Polyak said the atomic fuel rods were transported through the Tidal Area and not the Inland Area. This HRA discusses only information on the Inland Area.

Mr. Birsan asked if the Navy located a multi-level complex that is beneath NAVWPNSTA Concord. Ms. Crosby said a multi-level complex beneath NAVWPNSTA Concord has not been found.

Mr. Birsan suggested the clean bunker at NAVWPNSTA Concord can be saved and used for a historical museum in the future.

Mr. Birsan asked if the six unidentified bunkers at Site 22 will be addressed as part of the HRA. Mr. Ramsey said the Navy issued the Site 22 remedial investigation (RI), which discusses the special weapons bunkers. Mr. Birsan said that the RI for Site 22 should be put on hold until the HRA is finalized. Ms. Crosby said the purpose of the Site 22 RI is to address arsenic contamination in the soil, which is a different program from addressing radiological issues.

Claudette Altamirano (Weston Solutions) asked if the Navy has records of final surveys that were conducted once the weapons were removed from the bunkers. Mr. Polyak said he reviewed final survey records of the bunkers. The surveys were not detailed enough to go off the information provided.

Mike McGowan (Arc Ecology) noted that it is not uncommon to conduct the HRA after a RI has been completed. The Hunters Point Shipyard HRA was conducted after the RI phase.

Cindy Welles (Clyde resident) asked if the term "special weapons" includes nuclear items. Mr. Polyak said that "special weapons" encompasses more than "nuclear weapons."

Mr. McGowan asked if the drains from the potentially impacted buildings connect to the storm drain system at NAVWPNSTA Concord. Mr. Perry said the potentially impacted buildings at NAVWPNSTA Concord are on a septic tank system rather than a storm drain system.

Mr. McGowan asked if Navy contractor records were examined. Mr. Polyak said he reviewed contractor records for contractors that worked with radioactive materials. Most of the records found were from Lawrence Livermore Laboratory and dealt with shipping.

Mr. Birsan asked if there was access to medical records from the NAVWPNSTA Concord infirmary. Mr. Polyak said that he found dosimeter monitor records from staff who handled radioactive materials.

Shon Wolf (Clyde resident) asked if the Navy has records to indicate current locations of desks and safes from the potentially radiologically impacted buildings. Mr. Polyak said there are no records on the current locations of desks and safes.

Mr. Polyak said that any of the research material that he discovered that referenced radiological language was added into the database that will be on a CD attached to the Draft HRA. The RAB can review any of the reference material the Navy used to develop the HRA, which will be included as a CD attachment to the document.

Ms. Crosby stated the Draft HRA will be issued in June 2009. A fact sheet that includes contact information and how to provide comments on the Draft HRA will be included.

VI. OTHER TOPICS, NEXT MEETING, AND ACTION ITEMS

The agenda for August 5, 2009, includes the following presentations:

- Solid Waste Management Unit Sites 2, 5, 7, and 18 Update
- Site 27 Time Critical Removal Action Field Work Update

The following action item was generated during the RAB meeting on June 3, 2009.

No.	Action Item	Target Date for Completion	Responsible Person	Completion Date (or Status)
1	The Navy will finalize and distribute the April 1, 2009, RAB meeting minutes.	6/5/09	C. Hunter	This action item was completed.

ATTACHMENT A
ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD

JUNE 3, 2009

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**ATTENDEES AND AFFILIATIONS
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

JUNE 3, 2009

<u>Name</u>	<u>Affiliation</u>	<u>Telephone</u>
Wayne Akiyama	Shaw Group	(925) 256-6746
Claudette Altamirano	Weston Solutions	(925) 948-2661
Salem Attiga	EMS	(925) 939-0687
Lora Battaglia	U.S. Navy, BRAC PMO West	(619) 532-0968
Edi Birsan*	Concord Resident	(510) 812-8180
Joanna Canepa	Tetra Tech EMI	(425) 877-2806
Julie Crosby	Navy, BRAC PMO West	(619) 532-0929
Alan Friedman	Water Board	(510) 622-2347
John Hamm	Shaw Group	(505) 259-1232
Carolyn Hunter	Tetra Tech EMI	(415) 222-8297
John Kaiser	Water Board	(510) 622-2368
Bruce Knopf	City of Concord	(925) 671-3024
Laurie Lowman	U.S. Navy, RASO	(757) 887-7650
Mike McGowan	Arc Ecology	(415) 643-1190
Ulrika Messer	Tetra Tech EC	(619) 208-7213
Sarah Ann Moore	Navy, BRAC PMO West	(619) 532-0965
Charles Perry	Navy, BRAC PMO West	(619) 532-0911
Jim Pinasco	DTSC	(916) 255-3719
John Polyak	New World Technologies	(412) 498-8477
Philip Ramsey	EPA	(415) 972-3006
Matt Slack	U.S. Navy, RASO	(757) 887-4692
Frank Troglione	New World Technologies	(209) 499-9208
Cindy Welles*	Clyde Resident	(925) 685-2698
Mary Lou Williams*	Concord Resident	(925) 685-1415
Shon Wolf*	Clyde Resident	(925) 686-5924

Notes:

* Community Restoration Advisory Board (RAB) Member

BRAC PMO Base Realignment and Closure Program Management Office

DTSC Department of Toxic Substances Control

EPA U.S. Environmental Protection Agency

RASO Radiological Affairs Support Office

Water Board San Francisco Bay Regional Water Quality Control Board

ATTACHMENT B

**AGENDA
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

JUNE 3, 2009

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INLAND AREA AGENDA

FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD INLAND AREA RESTORATION ADVISORY BOARD (RAB) MEETING

Wednesday, June 3, 2009

6:00 p.m. – 7:45 p.m.

Location: Concord Police Station Community Room
1350 Galindo Street
Concord, CA 94520

- 6:00 – 6:15 Call to Order
- Welcome
 - Introductions/Agenda Review
 - Approval of April 2009 Meeting Minutes (Last Inland Area Meeting)
 - Public Comment Period
- Lead: Community Co-chair
- 6:15 – 6:20 Announcements
- Review of Action Items
- Lead: Navy Co-chair
- 6:20 – 6:30 Committee Reports/Announcements
- RAB Announcements, Reports or other business (Community Co-chair)
 - RAB Open Comment Period
 - Remedial Project Managers' (RPM) Update (Navy/EPA/DTSC/RWQCB)
 - City of Concord Update
- 6:30 – 6:40 Break
- 6:40 – 7:35 Presentation: Historical Radiological Assessment
Navy: Julie Crosby, Remedial Project Manager
- 7:35 – 7:45 Meeting Evaluation and Topic Suggestions of Future Meetings
Next RAB Meeting: August 5, 2009
August 2009 Agenda Approval
- 7:45 Adjourn

Next RAB Meeting

- *Inland Area: August 5, 2009*

NAVWPNSTA Concord RAB Meetings are held the first Wednesday of every month, unless changed.

Information regarding the Environmental Restoration program at former Naval Weapons Station Seal Beach Detachment Concord Inland Area can be found at:

<http://www.bracpmo.navy.mil/basepage.aspx?baseid=39&state=California&name=concord>

Base Closure Manager: Mr. John Hill (619) 532-0985, john.m.hill@navy.mil

Community RAB Co-Chair: Ms. Mary Lou Williams, Mlou1015@aol.com

**ATTACHMENT C
NAVY REMEDIAL PROJECT MANAGERS' UPDATE
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

JUNE 3, 2009

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Navy Remedial Project Manager (RPM) Update for 3 June 2009 Meeting of Former Naval Weapons Station Seal Beach Detachment Concord

Summary of Navy Base Realignment and Closure (BRAC)
Inland Area RPM activities since the last RAB meeting held on
Wednesday, 1 April 2009

Installation Restoration/Munitions Response Programs Sites

- April 24, 2009 – Submitted the Draft Site Inspection Report for Black Pit at Red Rock and the 5AT Sites.
- April 30, 2009 – Submitted the Draft Site Inspection Report for Eagle's Nest EOD and the Former Inland Burn Area.
- May 5, 2009 – Inert classroom training demonstration rockets were identified and removed from an approximate 8 by 10 foot area north of Building 97.
- May 20, 2009 – Submitted Final Work Instruction for Radiological Screening at Site 27 as part of the Time Critical Removal Action.
- May 20, 2009 – Submitted Response to Comments on Draft Sampling and Analysis Plan to agencies for Remedial Investigation at Site 29.
- May 27, 2009 – Navy and RASO discussed the Historical Radiological Assessment with the regulatory agencies and City of Concord representative.
- May 28-29, 2009 – Conducted field work for Radiological Screening at Site 27.

ATTACHMENT D

**HISTORICAL RADIOLOGICAL ASSESSMENT PRESENTATION
RESTORATION ADVISORY BOARD MEETING
FORMER NAVAL WEAPONS STATION SEAL BEACH
DETACHMENT CONCORD, CALIFORNIA**

JUNE 3, 2009

(39 Pages)

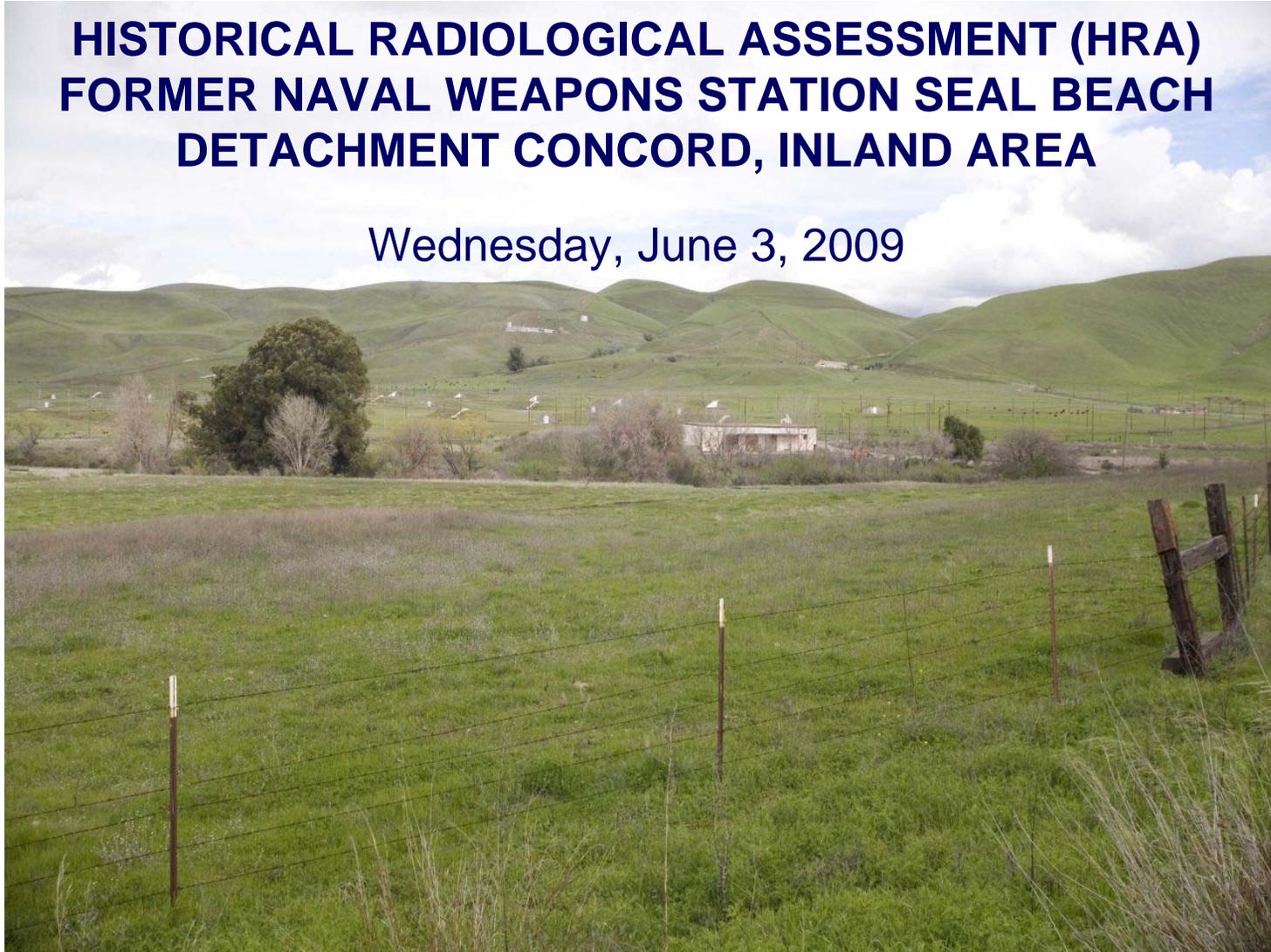


Former NAVWPNSTA Concord



HISTORICAL RADIOLOGICAL ASSESSMENT (HRA) FORMER NAVAL WEAPONS STATION SEAL BEACH DETACHMENT CONCORD, INLAND AREA

Wednesday, June 3, 2009





HRA in a Nutshell



- Operations at Concord used radioactive materials
- Potential for residual contamination from these operations
- No risk to workers, general public, or environment has been identified as a result of the former operations
- Additional investigations are recommended



Presentation Overview



- Historical Radiological Assessment (HRA) team
- HRA background
- HRA key terminology
- HRA scope (time frame, location)
- HRA research
- Summary of radiological activities on base
- HRA conclusion
- Path forward



HRA Team



- Navy Base Realignment and Closure (BRAC)
- Tetra Tech EC, Inc.
- Naval Sea Systems Detachment (NAVSEADET)
Radiological Affairs Support Office (RASO)



NAVSEADET RASO



As a Technical Support Center Supports
the Radiological Affairs Support Program (RASP)





Environmental Radiological Programs



- RASO Provides Technical Support for Environmental Radiological Programs for:
 - Navy/Marine Corps Environmental Restorations (ER)
 - BRAC
 - NRC/NRSC Decommissioning
- Expert Guidance – Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM)
- Regulatory Interface
 - Federal, State, Local Agencies
- Document Review
 - HRAs, Survey Plan
 - Final Reports



Active Environmental Sites



- **Active ER Sites**
 - NAS Jacksonville
 - NAS North Island
 - NSWC Indian Head Div.
 - NTC Great Lakes
 - NSY Puget Sound
- **Active BRAC Sites**
 - NSY Hunters Point
 - NSY Mare Island
 - MCAS El Toro
 - NAS Alameda
 - NAS Brunswick
 - NS Long Beach
 - NS Treasure Island
 - NWS Concord
- **Decommissioning & Decontamination (DD) Sites**
 - NAMRL Pensacola
 - NAES Lakehurst
 - NAWC Weapons Div. China Lake
 - NB Ventura County Point Mugu
 - NMRC Bethesda
 - NRL Chesapeake Beach Detachment
 - NRL Washington DC
 - NSWC Dahlgren Division



HRA Background



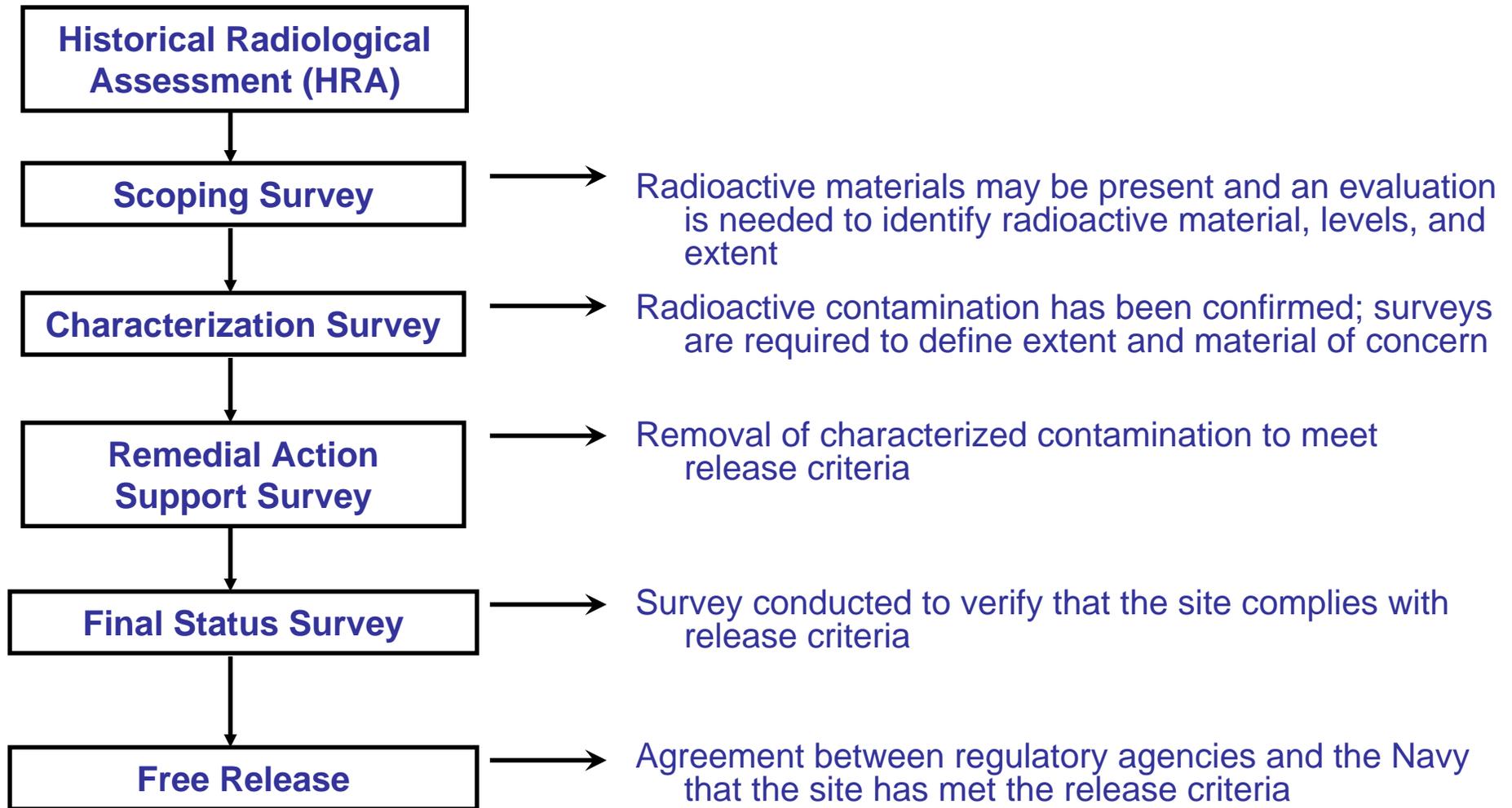
Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) – Provides a nationally consistent consensus approach to conducting radiation surveys and investigations at potentially radiologically contaminated sites

What is an **HRA**:

- Documents past radiological activities
- Provides a basis for investigating the presence and extent of radioactive materials
- Assesses past radiological investigations
- Determines sites as “*impacted*” or “*nonimpacted*”
- Provides *recommended actions* for impacted sites



Site Investigation Process





HRA Key Terminology



Impacted versus nonimpacted:

A site that has or historically had a potential for G-RAM contamination based on the site operating history or known contamination detected during previous radiation surveys is considered **impacted**. Impacted sites include sites where radioactive materials were used or stored; sites where known spills, discharges, or other instances involving radioactive materials have occurred; or sites where radioactive materials might have been disposed of or buried

A site that has no reasonable possibility of residual G-RAM contamination resulting from site operations based on historical documents is considered **nonimpacted**. This includes residential or other buildings that have or had no sealed radioactive sources other than smoke detectors or exit signs



HRA Key Terminology, Cont'd



Site – Any installation, facility, or discrete, physically separate parcel of land, or any building or structure or portion thereof, that is being considered for survey and investigation

General radioactive material (G-RAM) – All general radioactive materials used by the Navy not associated with the Naval Nuclear Propulsion Program

Depleted uranium (^{238}U) – Results from enriching natural uranium, which is present in most rocks and soils. Because of its high density, depleted uranium is used where dense mass is required. Military uses include defense armor plating and armor-piercing projectiles



HRA Key Terminology, Cont'd



Check source – Sealed small quantity of radioactive materials used to check radiation detection instruments for proper operation

X-ray machine – A device for generating X-rays. A controlled voltage and current are applied to an X-ray tube, resulting in a beam of X-rays. The beam is projected through matter. Some of the X-rays are absorbed while others pass through, creating an image of the interior of the object



HRA Scope

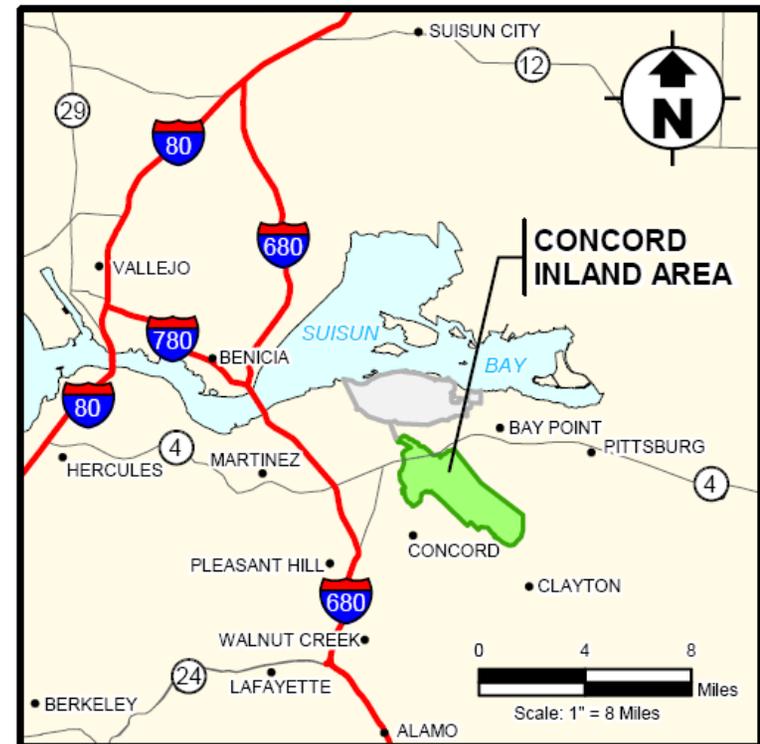


Time frame of study:

- 1945 to 2009: 64 years of historical radiological activities

Bounds of study:

- Inland Area only (5,205 acres)





HRA Research



- The HRA was prepared from:
 - Record searches
 - Site inspections at locations where radioactive materials may have been used, stored, or disposed of
 - Interviews with people who knew of radiological activities at the former NAVWPNSTA Concord
- Several thousand records were reviewed and those pertinent were compiled into a project database
- HRA is based on evaluation of these records



HRA Research, Cont'd



Record searches at the following archives:

- NWS Seal Beach, CA
- Former NWS Concord
- NARA, College Park, MD
- NARA, Washington, DC
- NARA, San Bruno, CA
- NARA, St. Louis, MO
- NARA, Laguna Niguel, CA
- RASO, Yorktown, VA



NARA, College Park, MD

NARA: National Archives and Records Administration

NWS: Naval Weapons Station

RASO: Navy Radiological Affairs Support Office



HRA Research, Cont'd



Public Notice published in the following papers:

Solicited Interviews

- Public Notice
- Press Release
- Fact Sheets
 - RAB mailing list
 - VA Centers
 - City of Concord
 - EPA
- Interview requests
- “Cold calls”

Alameda Journal	Oakland Tribune
Alameda Times Star	The Sacramento Bee
The Argus	San Mateo County Times
Contra Costa Times	The Tri-Valley Herald
The Daily Review	Vallejo Times Herald
East County Times	Valley Times
SF Chronicle	West County Times
San Jose Mercury News	



HRA Research, Cont'd



- Three respondents to Public Notices
 - No respondents had working knowledge of radiological activities at former NAVWPNSTA Concord
- One “cold call” based on flyer handed out at Concord City Council Meeting
 - Interview discussed work experience at former NAVWPNSTA Concord
 - Interview included in HRA



HRA Research, Cont'd



- Concord Radiation Safety Officer
 - Provided files for inclusion in HRA database
 - Answered questions about radiological activities at former NAVWPNSTA Concord
- Concord Fire Battalion Chief
- Concord Planner & Estimator
- RASO personnel
 - Provided files and license information for inclusion in HRA database
 - Answered questions about radiological activities at former NAVWPNSTA Concord
- Other consultants



Radiological Activities Summary



Past radiological operations at former NAVWPNSTA Concord:

- Use of X-ray machines, particle accelerators, gamma radiography, scanning electron microscope, and gas chromatography (GC) to examine weapons materials and components
- Receipt, repair, and disposition of equipment containing radioluminescent dials or gauges
- Storage and examination of depleted uranium ammunition
- Storage of instrument calibrators
- Storage and shipment of radioactive materials from other Navy facilities
- Handling and disposal of radioactive materials by shipment to off-site vendors or waste disposal sites
- Potential storage and maintenance of special weapons



Building IA-20 - General



Building description

- Single-story frame structure on concrete slab, approx. 480 ft²
- 1964 to mid-1990s, building housed the chemical and materials testing lab, known as Weapons Quality Engineering Center (WQEC) chemical lab

Building Function

- Lab primarily used to test oils and hydraulic fluids, and to develop new test methods to evaluate weapons
- Lab housed scanning electron microscope and energy dispersive X-ray spectrometer (devices did not contain G-RAM)





Building IA-20 – Radiological



Radiological Uses

- Depleted uranium penetrators were stored and inspected in Building IA-20, and potentially disassembled
- Calibration and surveying of tensiometers containing radium-226 (^{226}Ra)
- Radioactive materials containing ^{226}Ra and depleted uranium were handled and stored in the building prior to disposal

Findings: IA-20 is impacted due to handling and storage of ^{226}Ra and depleted uranium

Recommended Action: **scoping survey** of building structure and drains



Building IA-21 - General



Building Description

- Two-story concrete and steel structure with belowground basement, approx. 2,900 ft², attached to Building IA-21A

Building Function

- Offices
- Material test lab for nondestructive tests of weapon materials
- Lab for radiography examinations





Building IA-21 - Radiological



Radiological Uses

- A GC with an electron capture detector that used a nickel-63 (^{63}Ni) source
- Depleted uranium penetrators were potentially disassembled and examined
- Reports that low-level radioactive waste (LLRW) was handled in building
- Lab used sealed radioactive sources for radiography examinations

Findings: IA-21 is impacted due to the ^{63}Ni used in the GC, handling and storage of depleted uranium, and handling of sealed sources and LLRW

Recommended Action: **scoping survey** of building structure and drains



Building IA-21A - General



General Description

- Single-story addition to Building IA-21, concrete and metal structure on concrete slab with concrete gable roof, approx. 12,800 ft², attached to Building IA-21

Building Function

- Evaluation lab that tested microcircuits
- Wet chemistry lab
- Storage of an X-ray system





Building IA-21A - Radiological



Radiological Uses

- Use of an X-ray system associated with sources including cobalt-57 (^{57}Co), iodine-125 (^{125}I), polonium-210 (^{210}Po), americium-241 (^{241}Am). Due to short half-lives of ^{57}Co , ^{125}I , and ^{210}Po , they are not radionuclides of concern
- Depleted uranium penetrators were potentially disassembled and examined in laboratory

Findings: IA-21A is impacted due to the storage of the ^{241}Am source associated with the X-ray system, and the potential handling and examination of depleted uranium

Recommended Action: **scoping survey** of the building structure and drains



Building IA-22 - General



General Description

- Single-story concrete and steel structure, approx. 11,300 ft²

Building Function

- Wet chemistry lab
- Possible use of a GC
- Photography lab (starting in 1955)
- X-ray system





Building IA-22 - Radiological



Radiological Uses

- Possible use of a GC with a ^{63}Ni electron capture detector
- The ^{210}Po source associated with the X-ray system was stored in building; however, due to its short half life, ^{210}Po is not a radionuclide of concern
- Depleted uranium penetrators were potentially disassembled and examined

Findings: IA-22 is impacted due to the possible presence of the ^{63}Ni source associated with the GC, and potential handling and examination of depleted uranium

Recommended Action: **scoping survey** of the building structure and drains



Building IA-58 - General



Building Description

- Three-story concrete structure, approx. 5,100 ft²
- Constructed in 1952

Building Function

- Primary X-ray facility on base
- Storage of radiography devices, check sources, and other radiological material
- Photography-related compounds





Building IA-58 - Radiological



Radiological Uses

- Historical records indicate storage of:
 - Radiography devices containing cobalt-60 (^{60}Co)
 - Check sources, including strontium-90 (^{90}Sr) and cesium-137 (^{137}Cs)
 - ^{241}Am sources from X-ray system and instrument calibrator
 - ^{226}Ra calibration sources
 - Uranium-235 (^{235}U) source associated with fission chamber from neutron density gauge in building
 - Depleted uranium penetrators
 - Particle Accelerator

Findings: Building IA-58 is impacted due to the presence of ^{60}Co , ^{90}Sr , ^{137}Cs , ^{226}Ra , ^{235}U , and ^{241}Am sources, and handling and examination of depleted uranium

Recommended Action: **scoping survey** of the building structure and drains



Depleted Uranium Magazines



Depleted Uranium Magazines Description

- Depleted uranium magazines are interspersed among conventional munitions storage magazines
- Typical depleted uranium magazine was an earthen-covered concrete structure, approximately 100 x 50 feet (length, width)
- Typically outfitted with 2 doors, glass block, and several roof vents

Function: Storage of depleted uranium ammunition for PHALANX Close-in Weapons System

Findings: Six depleted uranium magazines are impacted due to the storage and potential handling and examination of depleted uranium

Recommended Action: **scoping survey** of the structures



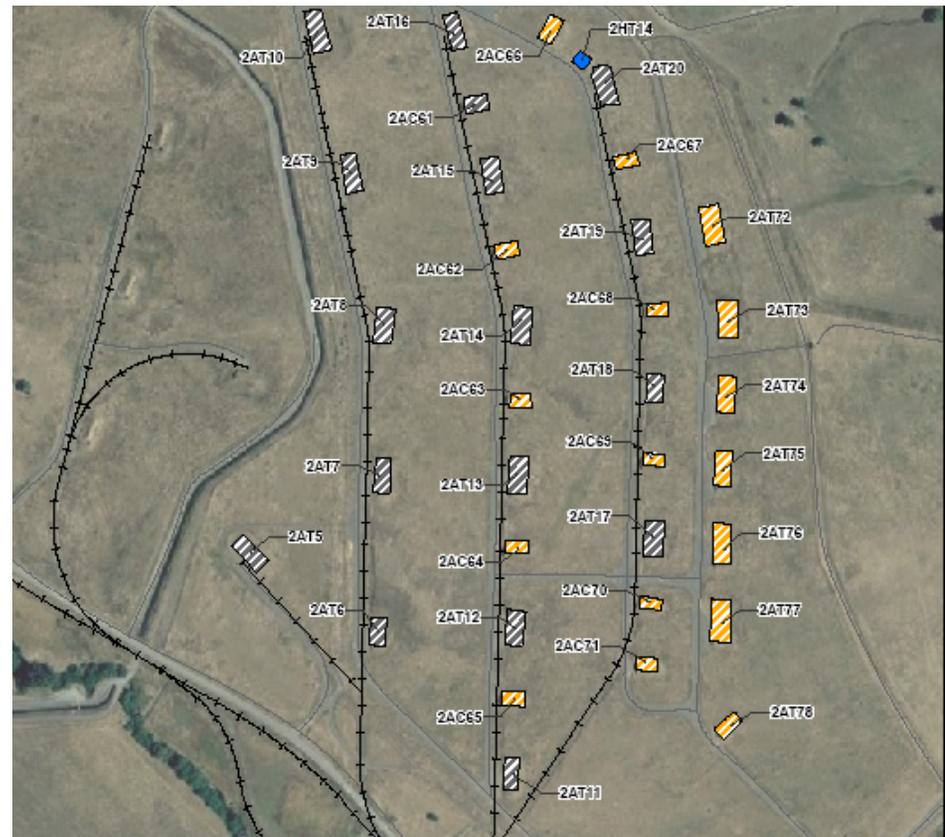


Alpha Area



Description:

- Secure “A” or “Alpha” Area
- Identified in historical record as being used for special weapons storage
- Weapons are no longer stored in the abandoned magazines or buildings in the Alpha Area





Special Weapons Magazines



Special Weapons Magazines Description

- Thirty-five storage magazines
- Earthen-covered concrete bunkers, approximately 50 x 80 feet (length, width)

Function: Potential storage of special weapons

Findings: Thirty-five special weapons magazines are impacted due to the potential handling of special weapons (isotopes associated with special weapons: tritium [^3H], ^{235}U , and plutonium-239 [^{239}Pu])

Recommended Action: **scoping survey** of the structures





Building 81 - General



Building Description

- Single-story, earth covered concrete structure, approx. 28,000 ft²

Building Function

- Ordnance maintenance and test facilities
- Potential for gamma radiography





Building 81 - Radiological



Radiological Uses

- Missile assembly and potential maintenance of special weapons, explosive operations, and machine radiography
- Potential for gamma radiography conducted in building

Findings: Building 81 is impacted due to the potential handling of special weapons (isotopes associated with special weapons: ^3H , ^{235}U , and ^{239}Pu) and potential for gamma radiography

Recommended Action: **scoping survey** of the building structure and drains



Building 87 – General



Building Description

- Single-story windowless concrete structure, approx. 25,000 ft²

Building Function

- Possibility that gamma radiography was conducted in building
- Because of remote location and proximity to the Alpha Area, special weapons maintenance was possible





Building 87 – Radiological



Radiological Uses

- Possibility that gamma radiography was conducted in building
- Potential special weapons maintenance

Findings: Building 87 is impacted due to the potential for gamma radiography and potential handling of special weapons (^3H , ^{235}U , ^{239}Pu)

Recommended Action: **scoping survey** of the building structure and drains



HRA Conclusion



- The HRA concludes that 48 sites are impacted
- The Navy anticipates that future investigations will find either no or low levels of residual radioactive contamination



Path Forward



- Timeline
 - Scoping surveys expected to start 2010
 - Surveys expected to take 6 to 9 months to complete
 - Results expected 3 to 6 months after completion of surveys



Questions?

