



Draft

FORMER MARINE CORPS AIR STATION (MCAS) El Toro 102nd Restoration Advisory Board (RAB) Meeting Minutes

Meeting Location: Irvine City Hall, Room L-102, Irvine California

Meeting Date/Time: 26 January 2011/6:30pm - 7:45pm

Minutes Prepared by: Michael Allen, CDM Federal Programs Corporation (CDM)

Attachment:

Presentation Slides: "Installation Restoration Program (IRP) Operable Unit 2C, Site 3 - Original Landfill and Site 5 - Perimeter Road Landfill Project Update"

WELCOME/INTRODUCTIONS/AGENDA REVIEW:

Mr. Jim Callian (Base Realignment and Closure [BRAC] Environmental Coordinator [BEC] and Navy RAB Co-Chair) welcomed everyone to the 102nd Former MCAS El Toro RAB meeting. Mr. Callian noted that Ms. Mary Aileen Matheis was granted an excused absence for tonight's RAB meeting. The meeting had a total of 23 attendees. Mr. Callian asked Ms. Marcia Rudolph (RAB member, Subcommittee Chair) to lead the Pledge of Allegiance. Mr. Callian asked that when RAB members know they are going to be absent, to please either call Mr. Woodings or Mr. Callian, using the contact information provided on the handouts. Introductions proceeded. Mr. Callian noted that the day before the RAB meeting, the Navy was informed of a room change and the meeting is held tonight in a smaller, cozier room, L-102.

ANNOUNCEMENTS/ REVIEW OF ACTION ITEMS

Mr. Callian began the meeting with the following announcements and discussion:

- Mr. Callian referenced the meeting agenda for old business, new business, and the subcommittee report.
- Mr. Callian reviewed the RAB meeting agenda; no changes to the agenda were suggested by the RAB. This meeting will have RAB Co-Chair elections.
- Mr. Callian announced that tonight's one presentation would discuss the status of recently completed actions at the Installation Restoration Program (IRP) Site 3, the Original Landfill, and IRP Site 5 the Perimeter Road Landfill.
- Mr. Callian presented a series of slides listing dates and times for the upcoming quarterly RAB meetings scheduled for 27 April, 31 August, and 09 November 2011. In addition, he presented slides listing key Navy and Regulatory Agency contacts, RAB points of contact, Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Administrative Record (AR) File and Information Repository (IR) locations and hours, and environmental and reuse/redevelopment websites.

- Mr. Callian reiterated the RAB's focus on environmental issues, cleanup for property transfer and not on reuse.
- Mr. Callian reminded everyone to please sign-in for tonight's RAB meeting.

APPROVAL OF 10 NOVEMBER 2010 RAB MEETING MINUTES

Mr. Woodings opened the floor for discussion, questions, or corrections to the 10 November 2010 RAB meeting minutes. No comments, corrections, or questions were raised, so the 10 November 2010 meeting minutes were approved. Minutes will be posted to the Navy's website: <http://www.bracpmo.navy.mil/>

SUBCOMMITTEE MEETING REPORT

Ms. Rudolph began her subcommittee meeting report by noting that the committee did not have a formal meeting this evening. She assured the RAB members that the next meeting would be conducted as usual.

Ms. Rudolph discussed a recent news article by Mr. Pat Brennan that was very critical of the cleanup efforts and was not reported in a factual or professional manner. Ms. Rudolph suggested that she be notified of upcoming meetings or presentations before the Great Park's Board. She offered to attend to speak positively and factually about the progress that has been made. Ms. Rudolph asked to be notified of the meetings.

Ms. Aycock asked if the article was reporting the Orange County (OC) Great Park's Board Meeting or if it was a general article about the restoration work. Ms. Rudolph could not recall, but will provide the article to RAB members later.

Mr. Hersh asked if Ms. Rudolph could recall the date of the article and he would look in his OC Register files or webpage to find the article. Ms. Rudolph said she thought she still had a copy at home and will distribute to the RAB.

Mr. Callian introduced the arrival of Mr. Roy Herndon of Orange County Water District. Mr. Herndon acknowledged and stated that he has not yet signed in, but would do so.

RAB COMMUNITY CO-CHAIR ELECTIONS

Mr. Callian stated that elections tonight are for the RAB community members to nominate and elect their Co-Chairperson. Mr. Callian offered nomination forms, ballots, and a ballot box. Ms. Rudolph verbally nominated Mr. Woodings and this nomination was quickly seconded. Mr. Callian asked if there were other nominations. Mr. Callian noted that the RAB bylaws state that the Co-Chairperson will be selected by a majority vote of the RAB community members in attendance. He asked if the RAB members would like to conduct the election by a show of hands. Members concurred and called for a show of hands for the vote. Although no count was made, all hands were unanimous for Mr. Bob Woodings to continue as the Community Co-Chair.

REGULATORY AGENCY UPDATE

Ms. Mary Aycock (U.S. EPA)

Ms. Aycock provided the following update to the RAB:

- Thanked everyone for the excellent efforts over the past holidays, as all have been very busy with reviews.
- The U.S. EPA is working with the Navy to finalize Finding of Suitability to Transfer (FOST) #6. U.S. EPA does not have significant comments and the review is nearly finished. DTSC is working on the covenant to restrict use of property (CRUP). FOST #6 should be finalized in the coming month.
- IRP Site 1, the Former Explosive Ordnance Disposal Training Range and IRP Site 2, the Magazine Road Landfill; U.S. EPA reviewed and concurred with the Draft Proposed Plan for groundwater at these two sites. The Agencies had a meeting on 13 January 2011 to discuss comments. Next steps are to resolve comments and issue the Final Proposed Plan in the next few months. Ms. Aycock asked for RAB support and if they had any questions to contact her.
- IRP Site 3 Landfill - On 18 January 2011, the Navy submitted the draft version of the Final Status Survey Plan, which is a work plan for conducting radiological surveys and confirmation sampling. U.S. EPA would like this to move quickly so the surveys can proceed and the open trenches can be backfilled.

Mr. Callian explained that the Proposed Plan is the next step for groundwater at IRP Sites 1 and 2, where the Navy and agencies present the preferred remedial actions for IRP Sites 1 and 2 Groundwater. As part of the Proposed Plan process, there will be a Public Meeting to present relevant information and to get public input.

Ms. Rudolph asked about the remaining FOSTs and if, at the next RAB meeting, the Navy could present a map showing the locations of property involved with those remaining FOSTs.

Mr. Quang Than (DTSC)

Mr. Than indicated that the DTSC's involvement was covered by activities and reviews discussed previously by Ms. Aycock and he had nothing further to add. Mr. Than offered to discuss any activities and answer other questions about the status provided. The RAB had no further questions.

Mr. Callian thanked Mr. Than, and asked Mr. Broderick to proceed with the RWQCB update.

Mr. John Broderick (RWQCB)

Mr. Broderick provided the following update to the RAB:

The RWQCB is planning an inspection of all landfills in the next few weeks to assure that the rain events did not adversely affect the landfill covers and/or adjacent areas.

Mr. Broderick is working on a closure letter for the soil at Tank Farm 555, which is the last portion of this site to be closed. The groundwater has petroleum products as a light non-aqueous phase liquid (LNAPL) that is floating on the groundwater; the Site has natural attenuation as the remedy in-place. This action includes bailing (removing) the LNAPL, and groundwater monitoring.

Mr. Broderick indicated that the large tanks still exist and were not removed, which is contrary to what the County preferred. However, the tanks were cleaned and they are not the source of the leaks and no regulations require that they be removed. The groundwater plume is stable and is confined to a small area. Only one or two wells have been impacted.

Mr. Callian described that the LNAPLs float on the surface of the groundwater and bailers are used to remove this contaminant from the wells.

Mr. Broderick noted that the thickness of the LNAPL varies, as has been observed in other wells at a different site.

Peter Hersh asked Ms. Aycock what trenches are being filled in. Ms. Aycock responded that the trenches are part of the IRP Site 3 Landfill that will be discussed in the presentation this evening.

Ms. Rudolph asked if there were any impacts to the Landfill near Borrego Wash.

Mr. Broderick stated that areas C1 and C2 were previously possibly threatened by erosion were excavated and consolidated into the main landfill cell. This main landfill cell was capped and has an armored face (riprap) to prevent erosion. One of the things he will do during the inspections is to observe these areas to assure no impacts have occurred. From the initial inspection reports, and previous visits, the cover and riprap are in very good shape.

Ms. Rudolph expressed concern and wanted assurances that erosion was not happening.

Mr. Broderick said that RWQCB, DTSC, and U.S. EPA get regular inspection reports of all operations and maintenance activities. The state regulations require specific activities and these are being performed regularly and reports provided.

Mr. Callian noted that the inspections, operations, and maintenance activities were in addition to the 5-year review in which the Navy does a close inspection and evaluation of the cover and other features of the landfill.

Mr. Callian said if there are no other questions or concerns, the meeting will move to the next agenda item for a project update of IRP Sites 3 and 5 landfills.

PRESENTATION: IRP OPERABLE UNIT 2C SITE 3 ORIGINAL LANDFILL AND SITE 5 PERIMETER ROAD LANDFILL - PROJECT UPDATE

Mr. Callian introduced the feature presenter for the evening as Mr. Marc Smits, the Navy's Remedial Project Manager for this project. Mr. Smits, along with Mr. Chris Johnson (Shaw Inc.),

will give tonight's presentation. A summary of the presentation by Mr. Smits and Mr. Johnson is provided:

Mr. Smits started with the overview of presentation topics that are on Slide 2. The main point is that virtually all of remedial activities were completed as of August 2010. Although a few minor activities need to be completed, the landfill caps are finished and will be shown in the slides that Mr. Johnson will present.

Slide 3 shows a map of IRP Site 3 and 5 locations. IRP Site 3 can be seen from Irvine Boulevard. IRP Site 5 is adjacent to Perimeter Road.

Slide 4 presents a brief background of IRP Site 3, Original Landfill. IRP Site 3 was in use from 1943 to 1955, covering approximately 11 acres. The landfill cap portion is about 2 acres. This landfill was operated as a cut-and-fill facility, which received a variety of municipal solid wastes and inert solid wastes. This disposal operation proceeded by the excavator cutting a trench, wastes dumped and then covered. Incinerator ash and construction debris were the primary types of wastes observed in the outlying waste areas during the excavation activities.

Slide 5 presents a detailed map of IRP Site 3, the Main Landfill and the outlying waste areas. The outlying waste areas were excavated and consolidated into the Main Landfill footprint.

Slide 6 presents a brief background of IRP Site 5, Perimeter Road Landfill. This Landfill operated as a cut-and-fill facility that had a very long and narrow shape. Slide 7 shows the map of the IRP Site 5 Landfill.

Slides 8 and 9 describe the remedial actions completed at IRP Sites 3 and 5. At IRP Site 3, wastes were consolidated into the Main Landfill footprint (Waste Area A) and a landfill cap that meets regulatory requirements was constructed. After the waste areas were excavated and consolidated into the Main Landfill footprint, confirmation samples were collected to assure that all wastes were removed from them. Results of all confirmation samples were below the project action levels.

IRP Site 5 does not have any outlying waste consolidation areas. A landfill cap that meets regulatory requirements was also constructed at this site. Both landfills were capped with a flexible membrane liner, over foundation soil and a protective cover soil placed over the membrane. Hydroseeding was used to vegetate the caps for erosion control. Plants and grasses were selected specifically for the shallow soil overlying the flexible membrane liner. Surface water control features were also constructed to control run-off and/or run-on. Landfill gas collection and monitoring wells and passive gas control trenches were installed around the perimeters of the landfills. Institutional controls are in-place that includes limitations/restrictions on site uses. IRP Site 3 will be fenced around the perimeter of the landfill after the open trenches are backfilled.

Mr. Johnson proceeded with Slide 10 describing the IRP Site 3 consolidation activities. The types of wastes from the consolidation areas were classified into two categories, one being incinerator wastes and the other as miscellaneous construction debris. In the areas with only miscellaneous construction debris, no radiological items were identified. In areas with

incinerator wastes, radiological items were identified, segregated, and properly disposed of off-site. Wastes from a total of nine areas were consolidated into the Main Landfill footprint.

Slide 11 is a figure showing the current site plan for IRP Site 3 that includes the Main Landfill footprint (Waste Area A) and the surrounding consolidated waste areas. Mr. Johnson identified the locations of the two types of wastes identified in the outlying trenches. The maps color-coded the two waste types.

Slide 12 lists the ongoing remedial activities. Landfill gas and groundwater monitoring began in August 2010 and the second quarterly monitoring was completed in December 2010. Inspections are ongoing. Erosion and drainage is inspected quarterly or more often as needed. Monitoring reports are being prepared. Inspections are conducted regularly especially during and after the December rainstorm.

Slide 13 is a photograph of the protective soil cover being placed over the flexible membrane liner that was completed at IRP Site 5. The cover placement at IRP Site 5 was ahead of IRP Site 3. The cover is sloped to allow drainage away from the landfill.

Mr. Johnson explained he was jumping ahead to describe the landfill gas trenches and collection system at the landfill. The main activity (Slide 15) was installing a landfill gas venting/collection well within the landfill. This is shown on Slide 15 where the vertical pipe is shown and the horizontal collection pipe is visible.

Slides 14 and 15 are photographs showing installation of the landfill gas venting/collection system used at IRP Site 5. The system is composed of passive vents at the perimeter of the landfill (Slide 14). The perimeter vent trench is about 25 feet away from the landfill perimeter. No landfill gas was detected during the monitoring completed in September or December 2010.

Slide 16 is a picture of the gravel access road being constructed at IRP Site 5 for monitoring and inspections.

Slide 17 is a picture of installing a groundwater monitoring well at IRP Site 5. These wells were installed to replace previously installed well to provide for an effective monitoring network.

Slide 18 is a photograph of the final surface at IRP Site 5 and shows the slope away from the landfill area. The photograph was taken before the hydroseeding was completed in December 2010. The approximate location of the liner and the gas vent risers were pointed out.

Slide 19 is a picture of the crew installing the IRP Site 5 fence, completed in September 2010, for security and access control.

Slide 20 is a photograph of excavating waste from Area A3 adjacent to Building 900 at IRP Site 3. This excavation determined that incinerator wastes extended beneath the adjacent Building 900. Study and evaluations determined that the best resolution was to demolish Building 900 so waste could be economically and safely removed.

Slide 21 is a photograph of placing and compacting the foundation soil at IRP Site 3.

Slide 22 is a photograph of the flexible membrane liner being placed and seams welded at IRP Site 3. The old flight simulator building in the background is at approximately 250 feet from the outer edge of the landfill. Monitoring points are between the landfill and the building.

Slide 23 is a photograph of the protective cover placement over the membrane liner at IRP Site 3. The landfill gas well is shown and will be connected to a riser pipe, valve box, and manifold when completed.

Slide 24 is a photograph of the final cover surface at IRP Site 3. This shows the sloped surface.

Slide 25 is a photograph of a landfill gas sample being collected from one of the interior landfill gas wells. This is from the first quarterly sampling event at IRP Site 3 in September 2010. Another sampling round was completed in December 2010. Monitoring results show no landfill gas (methane).

Slide 26 is a photograph of a groundwater sample being collected, using low flow equipment, from an IRP Site 5 well during the first quarterly sampling round.

Slide 27 is a photograph of hydroseeding at IRP Site 5. Both landfill covers were hydro seeded at the end of December 2010 after the rainstorms.

Slide 28 presents a summary of the remaining remedial activities for both sites. The activities include the following: continue monitoring and maintenance of both landfill caps and associated wells; conduct IRP Site 3 radiological surveys and confirmation sampling of the waste areas; backfill each of the IRP Site 3 former waste areas; install fence around the perimeter of IRP Site 3; conduct final inspection to ensure components of the remedy have been completed; and conduct 5-Year Reviews to assure continued protection of human health and the environment.

Slide 29 presents the schedule for the remaining project deliverables. Virtually all of the construction activities were completed last August. In May 2011, the Navy plans to submit the Draft Remedial Action Completion Report (RACR). The Operating Properly and Successfully (OPS) Report is planned to be finalized in March 2012. An OPS report is the last step the Navy needs to complete to allow the property to be transferred.

OPEN QUESTIONS AND COMMENTS

Mr. Callian opened the meeting for general questions and comments.

A question was asked if the heavy rains in December caused any erosional damage. Mr. Johnson discussed the inspections; no significant erosion damage was observed. Very small erosion rills were observed on one slope of the cover on IRP Site 3; these rills were immediately repaired. This specific area will be monitored closely. When the vegetative cover grows, it will serve very well to protect the cover and further prevent erosion.

A question was asked about groundwater monitoring results and if they showed any new constituents, different from those in the existing monitoring network.

Mr. Johnson replied no, no new chemicals. One existing well was too close to the IRP Site 5 landfill during construction. This well was abandoned and replaced in a new location, about 50 feet away. New upgradient wells were installed. Monitoring results overall, look very similar to past monitoring.

Mr. Smits stated that these are old landfills and depth to groundwater is about 180 to 200 feet below ground surface. In addition, a lot of what was found for wastes were incinerator ash, which is not typical landfill waste, and from the ash, you would not expect to see chemicals especially volatile chemicals or chemicals that would produce landfill gas, such as methane.

Ms. Arnold added that, as presented in the Record of Decision (ROD), groundwater at these landfills was not impacted, and therefore required no action. Groundwater monitoring will continue to ensure performance of the landfill cap.

An audience member asked if unrestricted use would be determined from the survey and testing at IRP Site 3 and be in the Remedial Action Completion Report (RACR). Mr. Johnson replied that the RACR is intended to document that the remedy is in place.

Mr. Callian noted that there were no further questions and thanked the presenters. Mr. Callian opened the meeting to general questions and discussions of other environmental topics.

There were no further questions from the RAB members. Mr. Callian asked Mr. Woodings to review the summary items from the meeting.

MEETING EVALUATION AND CLOSING

Mr. Woodings asked for questions or comments from the audience.

Mr. Woodings complimented the presentation and greatly appreciated the informative photographs that succinctly tell the story of the landfill remedies.

In closing, Mr. Callian stated that the next RAB meeting is scheduled for 27 April 2011 and asked for potential topics for that meeting. The following topics were suggested by the RAB:

- An update on remaining FOST property;
- The "State of the Station" was brought up. Mr. Callian indicated that the Navy is working on a hybrid type of information exchange that would efficiently update the RAB on IRP site activities;
- A financial report update;
- Site visits for RAB members;
- Groundwater cleanup status and information updates;
- Erosion inspections as mentioned by Mr. Broderick. Can RAB be informed if the rainstorms affected or set back any of the remedial actions ongoing; and

- Update on the status of the potential reuse for IRP Site 1.

The discussion evolved to identify that the main point of inquiry about reuse or potential reuse of IRP Site 1 is more about the timing. The information sought is when will the area be cleaned up for reuse, and if the cleanup would be completed before someone comes in to use the property.

In closing, Mr. Callian thanked everyone for participating.

LIST OF HANDOUTS PROVIDED AT THE MEETING

- 26 January 2011 Former MCAS El Toro RAB Meeting Agenda and Upcoming RAB Meeting Schedule
- Where to Get More Information & Environmental Websites
- Presentation Slides: "Installation Restoration (IRP) Operable Unit 2C, Site 3 - Original Landfill and Site 5 - Perimeter Road Landfill Project Update."
- Former MCAS El Toro IRP Site Location Map
- Former MCAS El Toro RAB Mission Statement and Operating Procedures
- Former MCAS El Toro RAB Fact Sheet/Membership Application
- Former MCAS El Toro Mailing List Coupon

Copies of the meeting minutes and handouts provided at the 10 November 2010 RAB meeting are available at the IR for former MCAS El Toro located in the Government Publication Section of the Heritage Park Regional Library, Irvine, California. Library hours are 10 am to 9 pm Monday through Thursday; 10 am to 5 pm Friday and Saturday; and 12 pm to 5 pm on Sunday. The library may be reached at (949) 936-4040. In addition, copies of the meeting minutes and handouts are also available at the CERCLA AR File maintained at Building 307 at former MCAS El Toro by Ms. Sue Rawal. Documents may be viewed by appointment; call Ms. Rawal at (949) 859-6014 between 9 am and 1 pm Monday through Thursday.

Final minutes from previous RAB meetings can be found on the internet at the Navy BRAC Program Management Office (PMO) website: www.bracpmo.navy.mil

INTERNET SITES

Navy and Marine Corps Internet Access

BRAC PMO Web Site (includes RAB meeting minutes): <http://www.bracpmo.navy.mil/>

Department of Defense - Environmental Cleanup Home Page Web Site:

<http://www.dtic.mil/envirodod/>

U.S. EPA:

Homepage: www.epa.gov

Superfund information: www.epa.gov/superfund

National Center for Environmental Assessment: www.epa.gov/ncea

Federal Register Environmental Documents: www.epa.gov/federalregister

Cal/EPA:

Homepage: www.calepa.ca.gov

Department of Toxic Substances Control: www.dtsc.ca.gov

Department of Health Services, reorganized into the Department of Health Care Services and the Department of Public Health: www.dhs.ca.gov

Santa Ana Regional Water Quality Control Board: www.waterboards.ca.gov/santaana

Additional Websites: Reuse and Redevelopment

Orange County Great Park: www.ocgp.org

Great Park Conservancy: www.orangecountygreatpark.org



INSTALLATION RESTORATION PROGRAM (IRP) OPERABLE UNIT 2C SITE 3 – ORIGINAL LANDFILL SITE 5 – PERIMETER ROAD LANDFILL

PROJECT UPDATE

Presented By

**Marc P. Smits, P.E. – Navy Remedial Project Manager
Chris E. Johnson – Shaw Environmental Project Manager**

**Base Realignment and Closure (BRAC) Program
Management Office West**

January 26, 2011



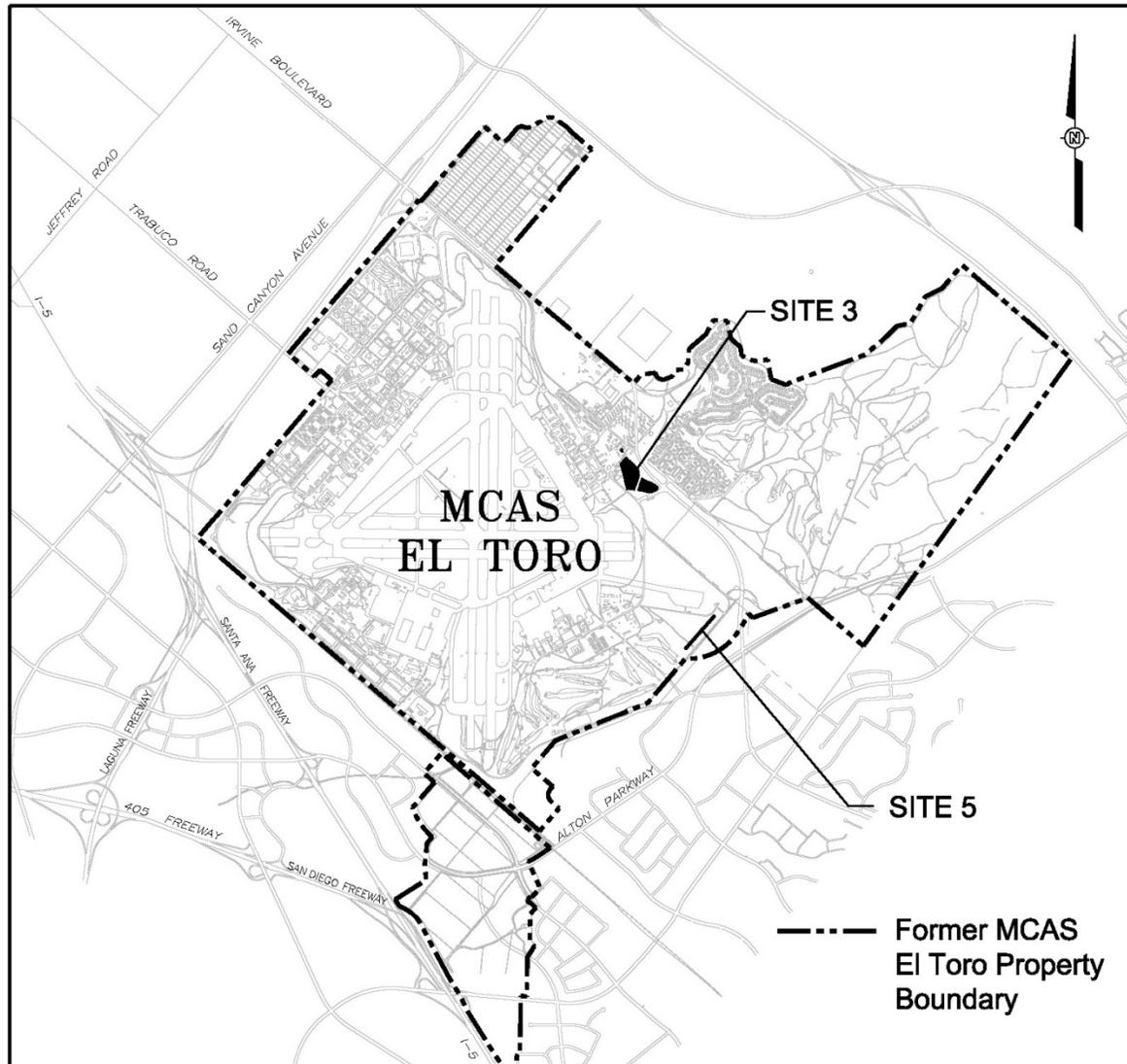
OVERVIEW



- SITE DESCRIPTIONS
- COMPLETED REMEDIAL ACTION ACTIVITIES
- ONGOING REMEDIAL ACTIVITIES
- REMAINING REMEDIAL ACTION ACTIVITIES
- SCHEDULE



SITE LOCATION MAP





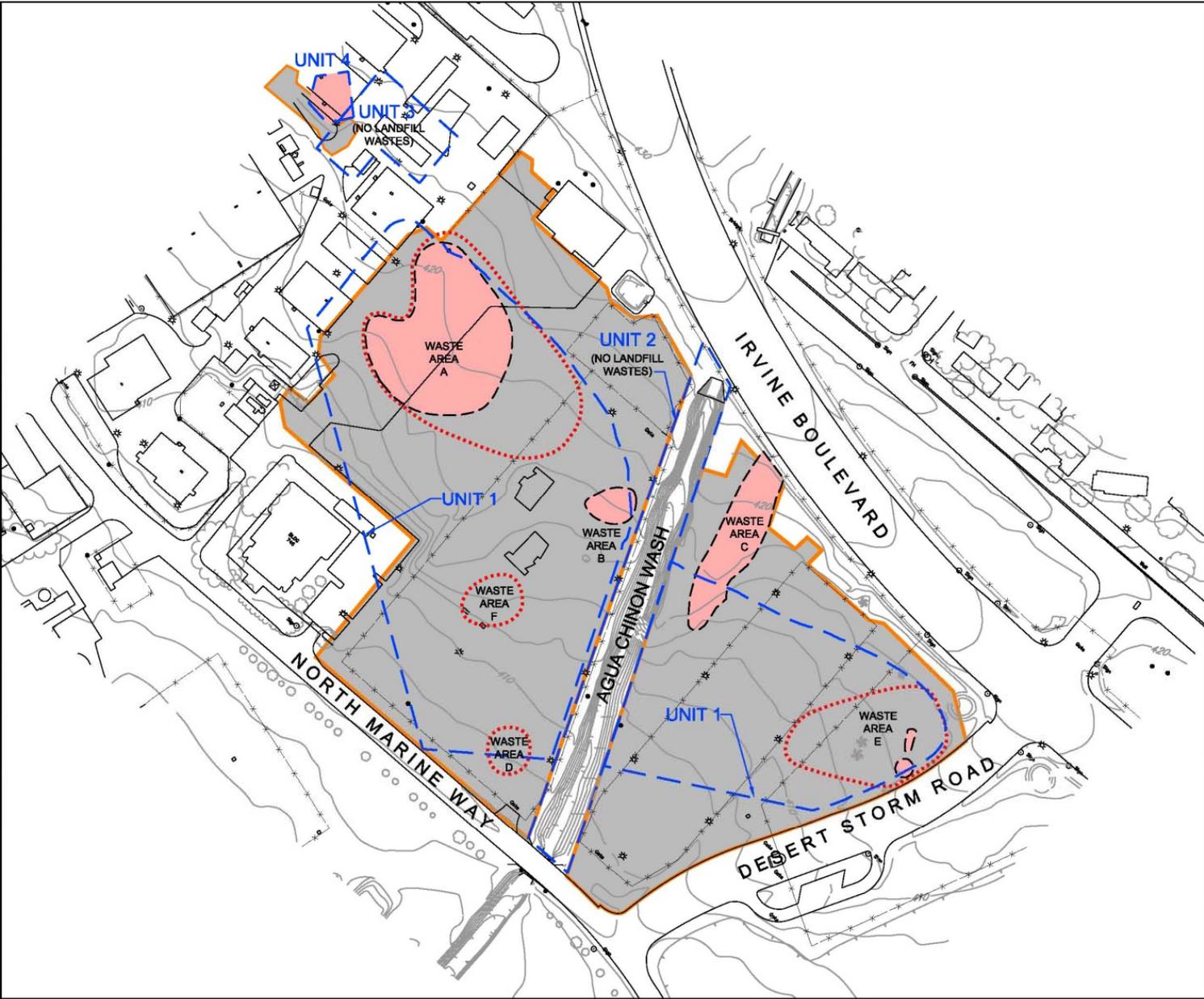
SITE DESCRIPTIONS



SITE 3 – ORIGINAL LANDFILL

- Active from 1943 to 1955
- Encompasses Approximately 11 acres
- Unlined Channel (Agua Chinon Wash) bisects the Site
- Original landfill at Base - Operated as a Cut-and-Fill Disposal Facility
- Types of Waste Included Metals, Incinerator Ash, Solvents, Paint, Residues, Hydraulic Fluids, Engine Coolants, Oily Wastes, Municipal Solid Waste, and Inert Solid Wastes
- Several Waste and Debris Areas (Areas B – F) Exist Outside of the Main Landfill Area (Area A)

IMAGE X-REF OFFICE CONCORD DRAWN BY M. SANDERS 7/11/11 CHECKED BY M. ARLA 1/11/11 APPROVED BY C. JOHNSON 1/11/11 DRAWING NUMBER 129894-B51

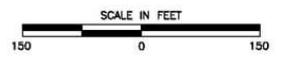


LEGEND

- Pre-Construction Site Topography
- Waste Placement Boundary
- Original RAD Survey Coverage (Weston, 2006)
- Operational Landfill Boundary
- Estimated Limit of Miscellaneous Debris
- Fence
- Access Road

Note:

Waste placement boundary shown is based on Trenching Locations (August - September 2002, November - December 2003)



SOUTHWEST DIVISION
 NAVAL FACILITIES ENGINEERING COMMAND
 CONTRACT NO. N68711-01-D-6011

ORIGINAL SITE PLAN
 SITE 3 - ORIGINAL LANDFILL
 SITES 3 & 5
 FORMER MARINE CORPS AIR STATION
 EL TORO, CALIFORNIA

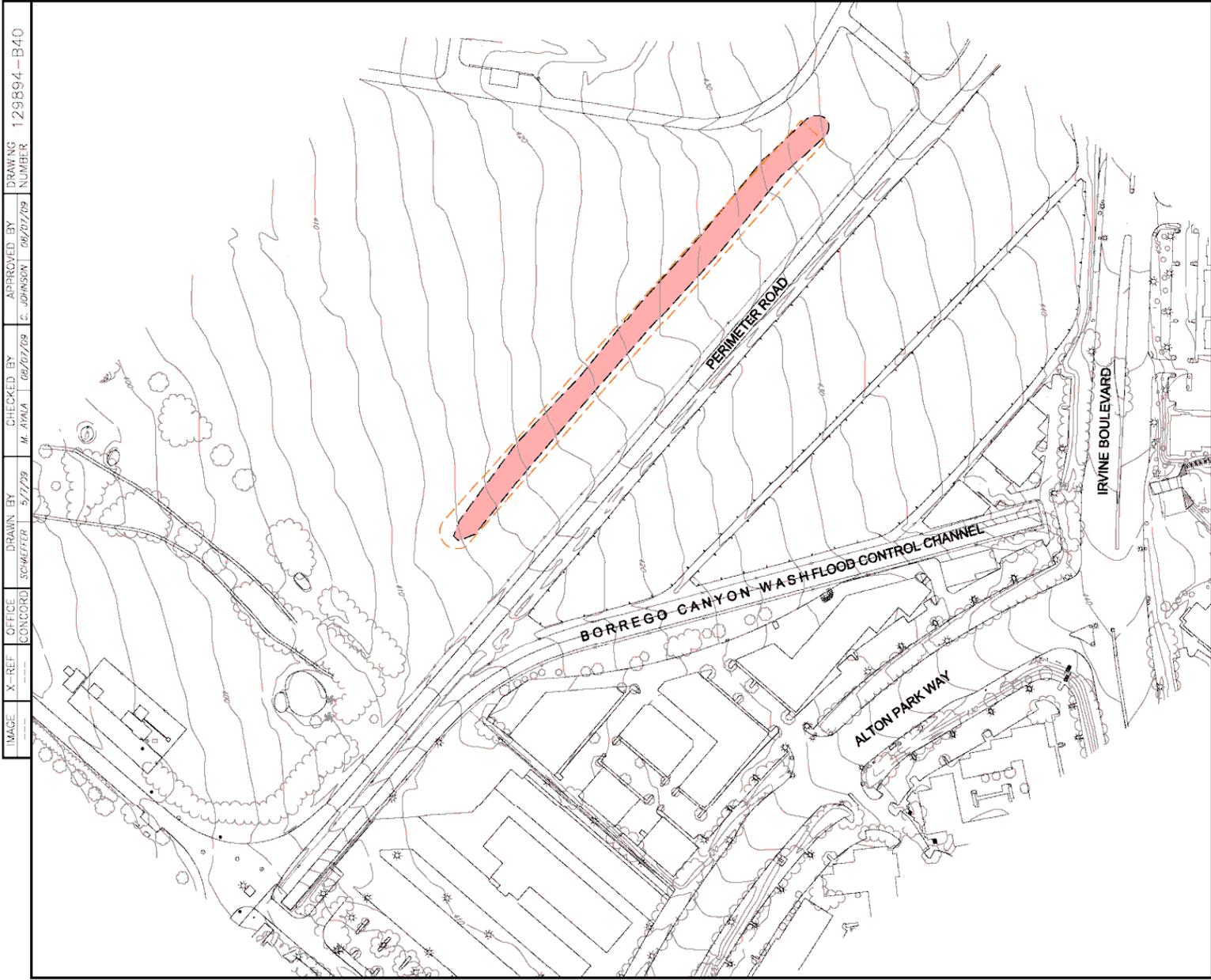


SITE DESCRIPTIONS



SITE 5 – PERIMETER ROAD LANDFILL

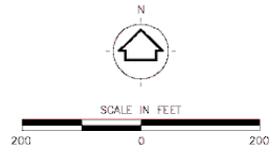
- Active from 1955 to the late 1960s
- Encompasses Approximately 1.8 acres
- 300 feet Northwest of Borrego Canyon Wash
- Operated as a Cut-and-Fill Disposal Facility
- Types of Waste Included Burnable Trash, Municipal Solid Waste, Cleaning Fluids, Scrap Metals, Paint Residues, and Unspecified Fuels, Oils, and Solvents



DRAWING NUMBER 129894-B40
 APPROVED BY C. JOHNSON 08/27/09
 CHECKED BY M. AYVA 08/27/09
 DRAWN BY SCHEFFER 5/7/09
 OFFICE CONCORD
 X-REF
 IMAGE

- LEGEND**
- Pre-Construction Site Topography
 - Waste Placement Boundary
 - Estimated Landfill Boundary (Phase II R1)
 - Fence
 - Access Road

Note:
 Waste placement boundary shown is based on Tronching Locations (August - September 2002)



 **Shaw Environmental, Inc.**
 SOUTHWEST DIVISION
 NAVAL FACILITIES ENGINEERING COMMAND
 CONTRACT NO. N68711-01-D-6011

SITE PLAN
SITE 5 - PERIMETER ROAD LANDFILL
 SITES 3 AND 5
 FORMER MARINE CORPS AIR STATION
 EL TORO, CALIFORNIA



COMPLETED REMEDIAL ACTIONS



- Consolidated waste into the Main Landfill at IRP Site 3
- Collected chemical confirmation samples in waste areas – results were below project action levels
- Installed a synthetic flexible membrane liner (FML)
- Placed a 2-foot soil cover over the FML
- Constructed surface water drainage systems along the boundary of the landfills
- Placed hydroseed on the landfill covers to promote growth of native grass for erosion control



COMPLETED REMEDIAL ACTIONS



- Constructed a landfill gas (LFG) collection and/or venting system
- Installed passive gas control trenches and gas probes
- Installed groundwater monitoring wells
- Implemented institutional controls for the landfills
- Installed fencing around perimeter of the landfill at IRP Site 5
- Constructed access roads to landfills
- Issued the Final Operation and Maintenance/Long-Term Monitoring Plan

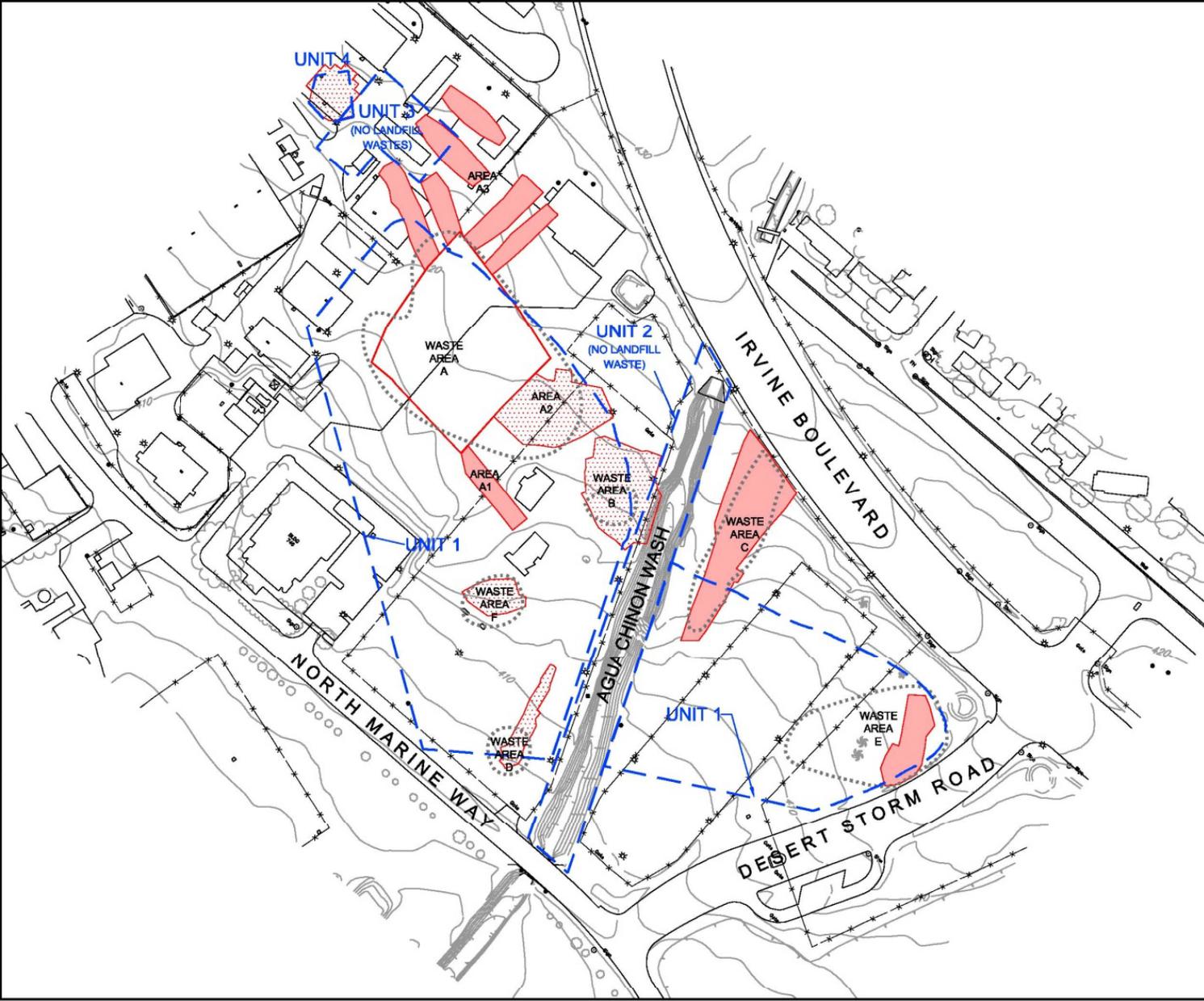


CONSOLIDATION ACTIVITIES



- Waste from a total of nine areas has been consolidated into the Main Landfill
- The areas were classified into two categories based on the types of material discovered:
 - Areas with incinerator waste and/or debris
 - Areas with only miscellaneous construction debris
- In the areas with only miscellaneous construction debris; no radiological items were identified in these areas
- In the areas with incinerator waste/debris; radiological items were identified, segregated, and properly disposed off-site

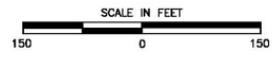
IMAGE X-REF OFFICE CONCORD DRAWN BY M.SANDERS 7/11/11 CHECKED BY M. AYALA 7/11/11 APPROVED BY C. JOHNSON 7/11/11 DRAWING NUMBER 129894-B49



LEGEND

- Pre-Construction Site Topography
- Waste Area A (Main Landfill Area To Be Capped)
- Incineration Waste/Debris Excavation Limits
- Miscellaneous Debris Excavation Limits
- Operational Landfill Boundary
- Original Estimated Limits of Waste/Debris
- Fence
- Access Road

Note:
Excavation limits shown are based on survey points of actual waste/debris boundaries.



SOUTHWEST DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
CONTRACT NO. N68711-01-D-6011

CURRENT SITE PLAN
SITE 3 - ORIGINAL LANDFILL
SITES 3 & 5
FORMER MARINE CORPS AIR STATION
EL TORO, CALIFORNIA



ONGOING REMEDIAL ACTIVITIES



- Began groundwater and LFG monitoring in August 2010
- Conducting periodic inspections of the landfill caps, drainage features, and settlement monuments
- Inspecting perimeter fencing to ensure site security
- Inspecting landfills after rain storms for any erosion damage, repair as necessary.



Placing protective cover soil over the geomembrane liner at IRP Site 5.



Placing 1-1/2 inch crushed rock over passive LFG vent piping surrounding IRP Site 5. Geotextile was placed on top of rock as a silt barrier prior to backfilling.



Installing 05_LFG01 well to LFG header system at IRP Site 5.



Installing the access road at IRP Site 5.



Installing additional groundwater monitoring wells at IRP Site 5.



Final surface at IRP Site 5.



Installing fencing at IRP Site 5.



Excavating incinerator waste/debris from Area A3 adjacent to Building 900 at IRP Site 3. Incinerator waste/debris extended beneath the building.



Placing foundation layer material at IRP Site 3.



Installing flexible geomembrane liner at IRP Site 3.



Placing protective cover soil over the geomembrane liner at IRP Site 3.



Final surface at IRP Site 3.



Collecting a vapor sample from a perimeter LFG well at IRP Site 3 during the 1st Quarterly sampling event.



Collecting a groundwater sample from a downgradient groundwater well at IRP Site 5 during the 1st Quarterly sampling event.



Installation of vegetative cover (hydroseeding) at IRP Site 5.



REMAINING REMEDIAL ACTIVITIES



- Continue monitoring and maintenance of the landfill caps and associated wells
- Conduct radiological surveys and confirmation sampling of the waste areas
- Backfill each of the former waste areas
- Install fence around the perimeter of IRP Site 3 landfill cap
- Conduct final inspections to ensure components of the remedy have been completed
- Conduct 5-Year Reviews to assure continued protection of human health and the environment



SCHEDULE



- Complete Construction Activities August 2010
- Draft Remedial Action Completion Report (RACR) May 2011
- Draft Final RACR October 2011
- Final RACR December 2011
- Draft Operating Properly and Successfully (OPS) Report September 2011
- Draft Final OPS Report January 2012
- Final OPS Report March 2012



ACRONYMS/ABBREVIATIONS



BRAC	Base Realignment and Closure
FML	flexible membrane liner
IRP	Installation Restoration Program
LFG	landfill gas
MCAS	Marine Corps Air Station
OPS	Operating Properly and Successfully
RACR	Remedial Action Completion Report