

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Certified Mail

May 28, 2009

In reply refer to SHEA-108733

California Department of Fish and Game
4949 Viewridge Avenue
San Diego, California 92123

Attention: Mr. Jeff Humble

Subject: Work Scope Information and Summary
The Boeing Company, Santa Susana Field Laboratory
Interim Source Removal Action-Outfalls 008 and 009 Watersheds
SAA 1600-2003-5052-R5 and Amendments
Ventura County, California

Dear Mr. Humble:

Based on the May 26, 2009 telephone discussion between you and Mr. Glenn Jaffe (permitting consultant), The Boeing Company (Boeing) is providing this letter that provides Project information and summarizes the upcoming Interim Source Removal Action (ISRA). In addition, Boeing is providing copies of the ISRA notification packages sent to the Los Angeles Regional Water Quality Control Board (RWQCB) and the U. S. Army Corps of Engineers.

The ISRA will be conducted to control the release of constituents of concern (COCs) to surface water within the Outfall 008 (Happy Valley) and Outfall 009 (Northern Drainage) watersheds at the SSFL. The work will be performed by Boeing and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the RWQCB dated December 3, 2008. The CAO was issued by the RWQCB to enforce compliance with the Waste Discharge Requirements (WDR) for Outfalls 008 and 009 contained in Order No. R4-2004-0111, as amended by Order Nos. R4-2006-0008, R4-2006-0036, and R4-2007-0055. The objective of the ISRA RWQCB CAO is to improve surface water quality within the Outfalls 008 and 009 watersheds by identifying, evaluating, and remediating areas of contaminated soil in order to eliminate the COCs that have resulted in exceedances of NPDES permit limits and benchmarks.

The ISRA Project will not negatively affect the quantity of water flowing in these watersheds and will not result in waters being discharged into drainages. As described below, impacted soil, sediment, and/or bedrock will be removed from the watersheds and drainages.

As you are aware, the California Department of Fish and Game (CDFG) previously approved a Notification of Lake or Streambed Alteration and issued Streambed Alteration Agreement (SAA) 1600-2003-5052-R5 for work in the Happy Valley drainage. This SAA has been amended and extended, and is an active SAA for the Northern Drainage as well.



The SAA has been kept active because the RWQCB's water quality objectives continue to be adjusted and additional field work is usually required to attain them. The proposed ISRA work scope is similar and will be performed and completed in a similar manner to the original Happy Valley and Northern Drainage field work.

In accordance with CDFG conditions stipulated in the SAA and its amendments, biological studies will be performed to minimize potential impacts to flora and fauna in Project work areas. Biological surveys of the Project areas have been performed and no sensitive species or other issues were identified. The biologist will again visit the Project areas prior to equipment being mobilized and field work commencing. This pre-field activities' survey is performed so that potential concerns can be addressed without affecting field work schedules. At the start of field work, Project areas will be re-visited and surveyed by a biologist to verify the pre-field activities' survey results, potentially transplant sensitive wildlife, and to evaluate current conditions. Upon field activities commencing in Project areas, a biologist will visit the areas as work is being performed to verify SAA conditions are being met, and to provide guidance to the field crews, if necessary. Mitigation, as necessary, will be performed in accordance with the existing SAA.

To meet the objectives of the CAO, an evaluation of remediation alternatives identified excavation, capping, and/or diversion/collection surface controls as the most likely remedial actions for the ISRA project. Of these 3 actions, the most likely alternative for both the Outfall 008 and the Outfall 009 ISRA Areas is excavation. Whichever alternative(s) is chosen, ISRA activities may include the use of the following adjacent to and within the Outfall 008 and 009 ephemeral drainages:

| | |
|------------------|----------------|
| Vacuum trucks | Shovels |
| Bobcats | Backhoes |
| Excavators | Manual removal |
| Personal trucks | Roll-off bins |
| Transport trucks | Dump Trucks |

If capping is chosen as a portion of the remedy, it may involve completely covering the potential ISRA Areas with a low-hydraulic-conductivity layer. The goal for installation of the cap is to minimize the infiltration of water into the potential source area and to provide erosion control, thereby minimizing the mobilization of COCs.

The soil cap will consist of clean cohesive soil installed over the existing site grade, with the final soil cap grade designed to drain stormwater without ponding and minimize erosion of the surrounding areas. Surrounding areas may need to be recontoured to minimize erosion. Although the soil cap will not be impermeable, it will effectively isolate the COCs in soil from contact with stormwater and serve to prevent the transport of constituents by rain water.

The geomembrane cap will consist of a 30-mil low linear density polyethylene geomembrane placed on a suitable prepared subgrade and graded to provide a firm, unyielding foundation designed to drain stormwater. The geomembrane will be protected with a 12-inch thick layer of clean soil or gravel placed over the geomembrane recontoured



to drain stormwater and to minimize erosion of the surrounding areas. Surrounding areas may need to be recontoured to minimize erosion.

If surface water diversion is chosen as a portion of the alternative, diversion drainage channels will be constructed around the ISRA Area to prevent stormwater run-on. The diversion channels will direct stormwater around the ISRA Area to reduce the volume of water in contact with and potentially mobilizing COCs. A sedimentation or detention basin will be constructed downstream of the ISRA Area to collect stormwater flowing off the site and allow the suspended solids to settle. The basin will require cleaning out frequently, likely after each storm, to prevent re-suspension of trapped sediments. If this alternative is implemented, additional information and drawings will be provided to CDFG.



Soil, sediment, gravel, rock, rip rap, filter media, vegetation, and other similar materials may be placed in and adjacent to the subject ephemeral drainages. The type of each material is not currently known or is still being determined. It is anticipated up to 10,000 cubic yards of materials may be placed within, adjacent to, and in upland areas of the drainages. These materials may be used to restore the areas to pre-existing conditions; minimize the potential for surface soil/sediment erosion and transport into or within the drainages; and/or to improve surface water quality by limiting the volume of suspended or settleable solids in the drainages.

In addition to removing impacted soil, sediment, and/or bedrock and the potential restoration of the Project areas, a series of check dams and rip rap may be installed across a portion of the Northern Drainage channel to contain clay target and lead shot debris (under Department of Toxic Substances Control [DTSC] and RWQCB oversight, soils and sediment containing clay target and lead shot debris were recently removed from this area). This is similar to the original Happy Valley work where a water-filled dam was installed to aid in controlling surface water flow and sediment transport.

It is anticipated the check dams will be constructed of gabion structures (rocks and grout in a wire mesh binder) and/or loose on-site or imported rocks and boulders. The check dams may be founded in the near surface bedrock with a concrete base that will be poured and cured before channel flow events. If channel topography permits, the concrete base may be deleted.

The check dams will span across the channel and be approximately 6 feet high from toe to crest. The check dams will be installed such that ideally the toe of the upstream dam will be at the same elevation as the crest of the next downstream dam, and so on. After rainfall and channel flow events, the areas behind the check dams will be inspected for accumulation of sediment and the presence of clay target and lead shot debris. If sediment is present at approximately one half the height of the dam or more, the sediment may be removed using a vacuum truck and/or excavation equipment as necessary. Routine maintenance of the check dams and sediment deposition areas will continue until the check dams are deemed to no longer be required and removed.

Rip rap may be used to aid in stabilizing the drainage bed and banks to minimize erosion and sediment transport. Rip rap may be placed along drainage banks as well as in the drainage to reduce flow velocity and minimize scouring and erosion.

Mr. J. Humble, CDFG (SHEA-108733)

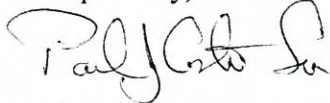
May 28, 2009

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The attached figures show project locations and work areas in both the Happy Valley Drainage and Northern Drainage.

If you have any questions or comments on this submittal, please do not hesitate to contact Ms. Lori Blair at 818-466-8741 or Mr. Glenn Jaffe of MWH at 818-391-4243.

Respectfully,



Thomas Gallacher, Director
Director, Santa Susana Field Laboratory
Environment, Health and Safety



LNB:bjc

Attachments: US Army Permit--NWP 38 Pre-Construction Notification
Pre-Certified 401 Notification-RWQCB
Site Figures

cc: Mr. Antal Szijj, USACOE
Dr. L. B. Nye, RWQCB
Ms. Valerie Carrillo, RWQCB
Ms. Cassandra Owens, RWQCB
Mr. Allen Elliott, NASA
✓ Mr. Glenn Jaffe, MWH

The Boeing Company
Santa Susana Field Laboratory
3870 Alessandro Dr.
Chico Park, CA 95026

Certified Mail

May 22, 2009
In reply refer to SHEA-108710



U. S. Army Corps of Engineers
Ventura County Field Office-Regulatory Branch
2151 Alessandro Dr, Suite 110
Ventura, California 93001

Attention: Mr. Antal Szijj

Subject: U. S. Army Permit--NWP 38 Pre-Construction Notification
Interim Source Removal Action, Outfalls 008 and 009 Watersheds
Santa Susana Field Laboratory, Ventura County, California

Dear Mr. Szijj:

Enclosed, please find the permit application form for a Nationwide Permit (NWP) 38 (to be used as the pre-construction notification) for the Interim Source Removal Action (ISRA) Project, located at The Boeing Company (Boeing), Santa Susana Field Laboratory (SSFL) in Ventura County, California. The work being performed as outlined in this application form is to satisfy requirements of the California Environmental Protection Agency's Los Angeles Regional Water Quality Control Board (RWQCB).

The work will be performed by Boeing and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the RWQCB dated December 3, 2008. The CAO was issued by the RWQCB to enforce compliance with Waste Discharge Requirements (WDR) for Outfalls 008 and 009 contained in Order No. R4-2004-0111, as amended by Order Nos. R4-2006-0008, R4-2006-0036, and R4-2007-0055.

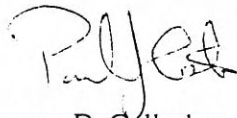
Based on sampling and analytical testing in both the Outfall 008 and Outfall 009 watersheds, soils, sediments, and/or bedrock that have been identified to contain constituents of concern that could impact surface water and result in water quality objective exceedances. Boeing is undertaking this ISRA to remove these soils, sediments, and/or bedrock. Although the potential areas where media removal may take place are typically not in jurisdictional drainages, a limited quantity of impacted media has been identified in US Army Corps of Engineers (ACOE) jurisdictional areas. Therefore, Boeing is submitting this notification to the ACOE, and also notifying the RWQCB (NWP 38 activities are CWA Section 401 pre-certified) prior to commencing the project. In addition, the California Department of Fish and Game has approved a Notification of Lake or Streambed Alteration (SAA) agreement that places conditions on the activities that will be performed as part of this ISRA project.

An application (to be used as pre-construction notification) and supplemental information accompanies this cover letter. If you have any questions regarding this submittal, please

Mr. A. Szijj, U.S. ACOE (SHEA-108710)
May 22, 2009
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contact Lori Blair at (818) 466-8741 or Glenn Jaffe of MWH at (626) 568-6329 with any questions you have.

Sincerely,



Thomas D. Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety



LNB:bjc

Attachments: Site Figures
Supplemental Information
RWQCB Pre-Certification Notification

cc: ✓ Mr. Dana Cole, RWQCB (without attachments)
Dr. L. B. Nye, RWQCB
Ms. Cassandra Owens, RWQCB
Ms. Valerie Carrillo, RWQCB (without attachments)
Mr. Glenn Jaffe, MWH

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1144

Certified Mail

May 22, 2009

In reply refer to SHEA-108709

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013



Attention: Mr. Dana Cole, 401 Certification Unit

Subject: Pre-Certified 401 Notification
The Boeing Company, Santa Susana Field Laboratory
Interim Source Removal Action-Outfalls 008 and 009 Watersheds
Ventura County, California

Dear Mr. Cole:

The Boeing Company (Boeing) is submitting this notification to the California State Water Resources Control Board (SWRCB) and the Los Angeles Regional Water Quality Control Board (RWQCB) as required under Clean Water Act (CWA) Section 401, and as promulgated by the Water Quality Certification (WQC) of certain U.S. Army Corps of Engineers (ACOE) Nationwide Permits (NWP).

This notification is for the Interim Source Removal Action (ISRA) to control the release of constituents of concern (COCs) to surface water within the Outfall 008 and Outfall 009 watersheds at the SSFL. The work will be performed by The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles Regional Water Quality Control Board (RWQCB) dated December 3, 2008. The CAO was issued by the RWQCB to enforce compliance with the Waste Discharge Requirements (WDR) for Outfalls 008 and 009 contained in Order No. R4-2004-0111, as amended by Order Nos. R4-2006-0008, R4-2006-0036, and R4-2007-0055.

The objective of the ISRA RWQCB CAO is to improve surface water quality within the Outfalls 008 and 009 watersheds by identifying, evaluating, and remediating areas of contaminated soil in order to eliminate the COCs that have resulted in exceedances of NPDES permit limits and benchmarks. Based on the work scope, the Project is a notifying Nationwide Permit 38-Cleanup of Hazardous and Toxic Waste. Based on this category of NWP, this Project is pre-certified by the SWRCB under the CWA Section 401 program. Therefore, Boeing is providing this notification, and not a complete Section 401 certification application. This is consistent with the May 11, 2007 SWRCB memorandum that identifies specific Section 401 activities which are pre-certified and only require appropriate notification.

Pre-Certified Notification Information

1. Name, address, and telephone number of the:

a. Applicant

The Boeing Company
Mr. Thomas Gallacher
5800 Woolsey Canyon Road, MC 055-T487
Canoga Park, California 91304-1148
Phone: 818-466-8877 or 818-466-8778
Fax: 818-466-8730

b. Applicant's Agent

MWH Americas, Inc.
Mr. Glenn Jaffe
618 Michillinda Avenue, Suite 200
Arcadia, California 91007
Phone: 818-391-4243
Fax: 626-568-6515
Email: glenn.jaffe@mwhglobal.com

2. Identification of Federal permits and licenses for proposed project activities

United States Army Corps of Engineers (USACOE), Ventura Branch
CWA Section 404 Notifying Nationwide Permit 38

A copy of the Army Permit Application form is attached. The application serves as the USACOE pre-construction notification for the NWP 38.

Note: The California Department of Fish and Game previously approved a Notification of Lake or Streambed Alteration and issued Streambed Alteration Agreement (SAA) 1600-2003-5052-R5. This SAA has been amended and extended, and is an active SAA. In accordance with CDFG conditions stipulated in the SAA and its amendments, biological studies will be performed to minimize potential impacts to flora and fauna in Project work areas. Biological surveys of the Project areas have been performed and no sensitive species or other issues were identified. The biologist will again visit the Project areas prior to equipment being mobilized and field work commencing. This pre-field activities' survey is performed so that potential concerns can be addressed without affecting field work schedules. At the start of field work, Project areas will be re-visited and surveyed by a biologist to verify the pre-field activities' survey results, potentially transplant sensitive wildlife, and to evaluate current conditions. Upon field activities commencing in Project areas, a biologist will visit the areas as work is being performed to verify SAA conditions are being met, and to provide guidance to the field crews, if necessary.

3. Project Description

a. Purpose and Final Goal: The objective of the ISRA RWQCB CAO is to improve surface water quality within the Outfalls 008 and 009 watersheds by identifying, evaluating, and remediating areas of contaminated soil in order to





eliminate the COCs that have resulted in exceedances of NPDES permit limits and benchmarks. An evaluation of remediation alternatives identified excavation, capping, and/or diversion/collection surface controls as the most likely remedial actions for the ISRA project. Of these 3 actions, the most likely alternative for both the Outfall 008 and the Outfall 009 ISRA Areas is excavation. Whichever alternative(s) is chosen, ISRA activities may include the use of the following adjacent to and within the Outfall 008 and 009 ephemeral drainages:

| | |
|------------------|----------------|
| Excavators | Shovels |
| Bobcats | Backhoes |
| Vacuum trucks | Manual removal |
| Personal trucks | Roll-off bins |
| Transport trucks | Dump Trucks |

If capping is chosen as a portion of the remedy, it may involve completely covering the potential ISRA Areas with a low-hydraulic-conductivity layer. The goal for installation of the cap is to minimize the infiltration of water into the potential source area and to provide erosion control, thereby minimizing the mobilization of COCs. The two potential capping techniques for ISRA Areas include installation of a clay cap and a geomembrane cap. The general field methods to install these caps are described below. Both clay and geomembrane caps will require routine inspection, maintenance, and land use restrictions (such as fencing or deed notifications) to prevent damage to the cap or future use in an area.

The soil cap will consist of clean cohesive soil installed over the existing site grade, with the final soil cap grade designed to drain stormwater without ponding and minimize erosion of the surrounding areas. Surrounding areas may need to be recontoured to minimize erosion. Although the soil cap will not be impermeable, it will effectively isolate the COCs in soil from contact with stormwater and serve to prevent the transport of constituents by rain water.

The geomembrane cap will consist of a 30-mil low linear density polyethylene geomembrane placed on a suitable prepared subgrade and graded to provide a firm, unyielding foundation designed to drain stormwater. The geomembrane will be seamed by extrusion and/or fusion welding. The geomembrane will be protected with a 12-inch thick layer of clean soil or gravel placed over the geomembrane recontoured to drain stormwater and to minimize erosion of the surrounding areas. Surrounding areas may need to be recontoured to minimize erosion.

If surface water diversion is chosen as a portion of the alternative, diversion drainage channels will be constructed around the ISRA Area to prevent stormwater run-on. The diversion channels will direct stormwater around the ISRA Area to reduce the volume of water in contact with and potentially mobilizing COCs. A sedimentation or detention basin will be constructed downstream of the ISRA Area to collect stormwater flowing off the site and allow the suspended solids to settle. The basin operates as a detention reservoir while sediment is deposited by flow moving slowly through it. The sedimentation basin will discharge via an overflow weir or pipe and reconnect with the natural drainage. The basin will require

cleaning out frequently, likely after each storm, to prevent re-suspension of trapped sediments.

- b. Address including city and county, assessor's parcel number, and latitude and longitude:** The Boeing Company Santa Susana Field Laboratory, 5800 Woolsey Canyon Road, Simi Hills, Ventura County; Longitude 118°40.690'W and Latitude 34°14'N.
- c. Receiving water bodies:** Surface water that flows in the Outfall 008 Watershed flows through a natural unlined drainage on-site and eventually leaves the property (approximately 1/2 mile from Outfall 008) into Dayton Creek. Dayton Creek eventually flows into the Los Angeles River, which flows into the Pacific Ocean. Surface water that flows in the Outfall 009 Watershed flows through a natural unlined drainage on-site and eventually flows into Arroyo Simi, then into Calleguas Creek, and eventually into the Pacific Ocean.
- d. Types of receiving water bodies:** See 3c.
- e. For each water body type reported in 3c, the total quantity of waters and types of discharge material that may temporarily or permanently impact waters of the State:** The ISRA Project will not negatively affect the quantity of water flowing in these watersheds and will not result in waters being introduced into the drainage. As described above, impacted soil, sediment, and/or bedrock will be removed from the watersheds and drainages.

Soil, sediment, gravel, rock, rip rap, filter media, vegetation, and other similar materials may be placed in and adjacent to the subject ephemeral drainages. The type of each material is not currently known or is still being determined. It is anticipated up to 10,000 cubic yards of materials may be placed within, adjacent to, and in upland areas of the drainages. These materials may be used to restore the areas to pre-existing conditions; minimize the potential for surface soil/sediment erosion and transport into or within the drainages; and/or to improve surface water quality by limiting the volume of suspended or settleable solids in the drainages.

In addition to removing impacted soil, sediment, and/or bedrock and the potential restoration of the Project areas, a series of check dams and rip rap may be installed across a portion of the Northern Drainage channel to contain clay target and lead shot debris (under Department of Toxic Substances Control [DTSC] and RWQCB oversight, soils and sediment containing clay target and lead shot debris were recently removed from this area). The check dams and rip rap will also promote drainage bed and bank stabilization and sediment settling in specific locations during channel flow events. The deposited sediment will be inspected for the presence of clay target and lead shot debris and removed, if found to contain such debris.

It is anticipated the check dams will be constructed of gabion structures (rocks and grout in a wire mesh binder) and/or loose on-site or imported rocks and boulders.





The check dams may be founded in the near surface bedrock with a concrete base that will be poured and cured before channel flow events. If channel topography permits, the concrete base may be deleted.

The check dams will span across the channel and be approximately 6 feet high from toe to crest. The check dams will be installed such that ideally the toe of the upstream dam will be at the same elevation as the crest of the next downstream dam, and so on. After rainfall and channel flow events, the areas behind the check dams will be inspected for accumulation of sediment and the presence of clay target and lead shot debris. If sediment is present at approximately one half the height of the dam or more, the sediment may be removed using a vacuum truck and/or excavation equipment as necessary. Routine maintenance of the check dams and sediment deposition areas will continue until the check dams are deemed to no longer be required and removed.

Rip rap may be used to aid in stabilizing the drainage bed and banks to minimize erosion and sediment transport. Rip rap may be placed along drainage banks as well as in the drainage to reduce flow velocity and minimize scouring and erosion.

- f. The attached figures show project locations and work areas. The attached table indicates Project area coordinates. The attached ACOE information provides additional project details.

A check in the amount of \$77 made payable to the State Water Resources Control Board, is included.

I certify that to the best of my knowledge, the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. If you have any questions or comments on this submittal, please do not hesitate to contact Ms. Lori Blair at 818-466-8741 or Glenn Jaffe of MWH at 818-391-4243.

Respectfully,

A handwritten signature in black ink, appearing to read "Tom Gallacher".

Thomas Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety

LNB:bjc

Attachments: Check for \$77 to SWRCB
Site Figures
Table with Project area coordinates
Supplemental Information
USACOE NWP 38 Pre-Construction Notification
















Mr. D. Cole, RWQCB (SHEA-108709)
May 22, 2009
Page 6

cc: Mr. Oscar Balaguer, SWRCB
Mr. Antal Szijj, USACE
Dr. L. B. Nye, RWQCB
Ms. Valerie Carrillo, RWQCB
Ms. Cassandra Owens, RWQCB
Mr. Glenn Jaffe, MWH



Outfall 008 Refined ISRA PEAs and ISRA Areas

Base Map Legend

-  Administrative Area Boundary
-  RFI Site Boundary
-  Existing Building or Structure
-  Previously Excavated Area
-  Preliminary ISRA Evaluation Area
-  Surface Water Drainage
-  Surface Water Divide
-  Outfall Water Divide
-  NPDES Outfall
-  Dirt Road
-  Paved Road
-  Elevation Contour
-  Bedrock Outcrop
-  2009 Data Gap Location. Sample(s) Not Analyzed
-  Proposed Sample Location / Sample Results Pending

ISRA Constituents of Concern

Copper, Lead, Dioxins





2005 Background Comparison Concentrations

Copper: 29 mg/kg






Lead: 34 mg/kg

Dioxins (TCDD TEQ): 0.87 pg/g

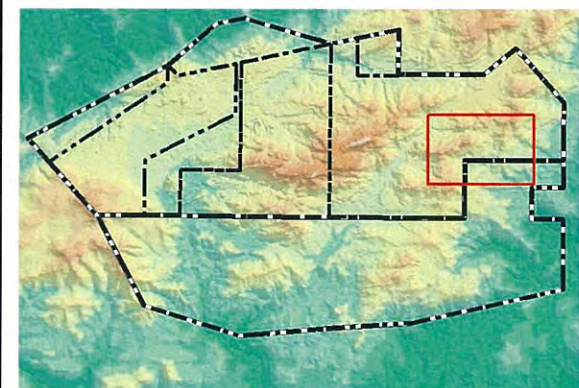
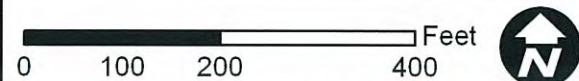
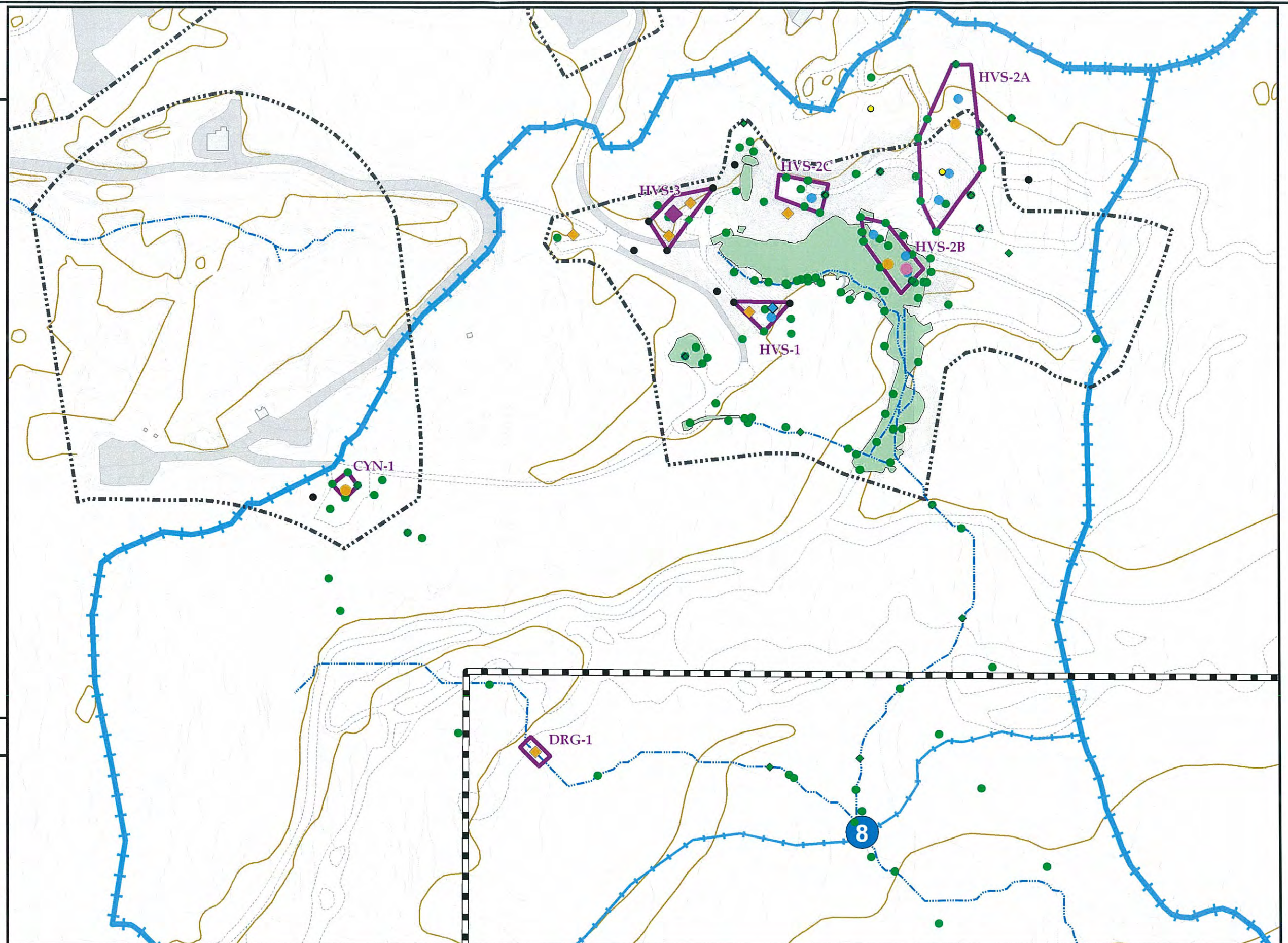
Copper and/or Lead Sample Location (< 2 feet bgs)

-  ≤ Background (BG)
-  >BG and < 2x BG
-  ≥2x BG and <10x BG
-  ≥10x BG and <100x BG

Dioxin Sample Location (< 2 feet bgs)

-  ≤ Background (BG)
-  >BG and < 2x BG
-  ≥2x BG and <10x BG
-  ≥10x BG and <100x BG
-  ≥100x BG

Note: Dioxin represents the sum of 17 dioxin/furan congener results adjusted for toxicity, normalized to 2,3,7,8-TCDD TEQ



S A N T A S U S A N A F I E L D L A B O R A T O R Y

Eastern Outfall 009 Preliminary ISRA Evaluation Areas

Base Map Legend

| | |
|--|----------------------------------|
| | Administrative Area Boundary |
| | RFI Site Boundary |
| | Existing Building or Structure |
| | Previously Excavated Area |
| | Preliminary ISRA Evaluation Area |
| | Surface Water Drainage |
| | Surface Water Divide |
| | NPDES Outfall |
| | Dirt Road |
| | Paved Road |
| | Elevation Contour |
| | Bedrock Outcrop |

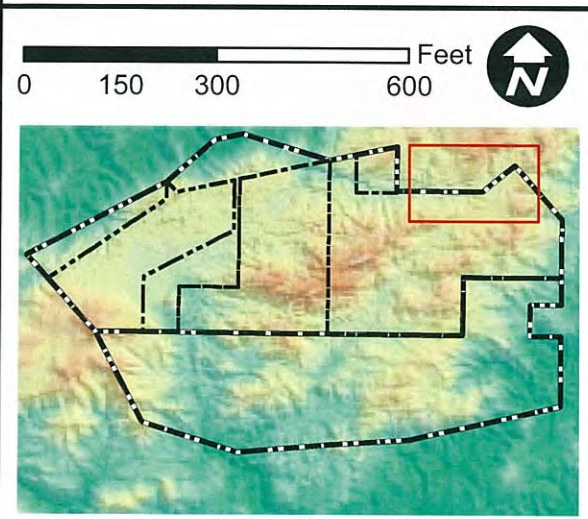
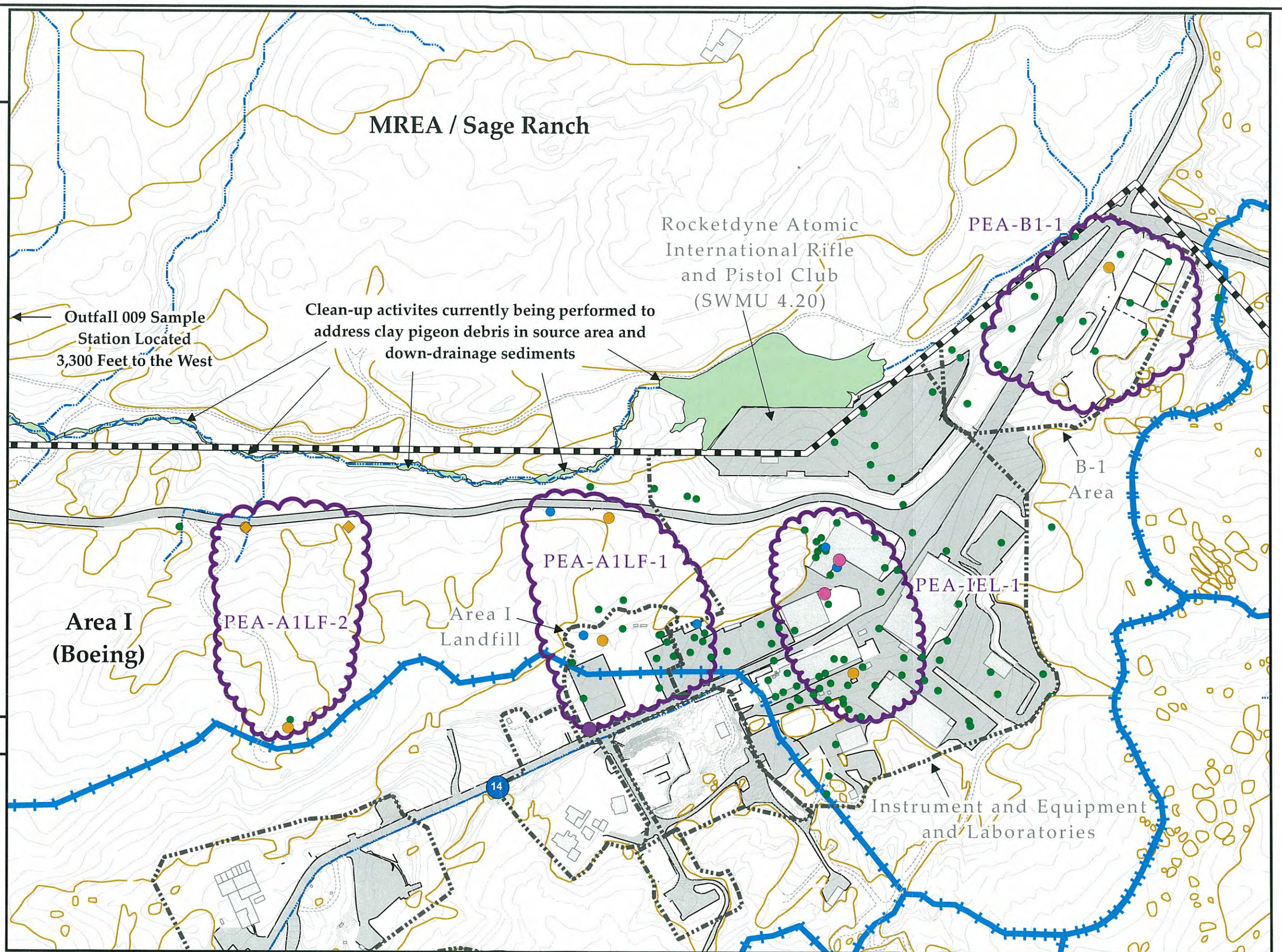
Constituents of Concern

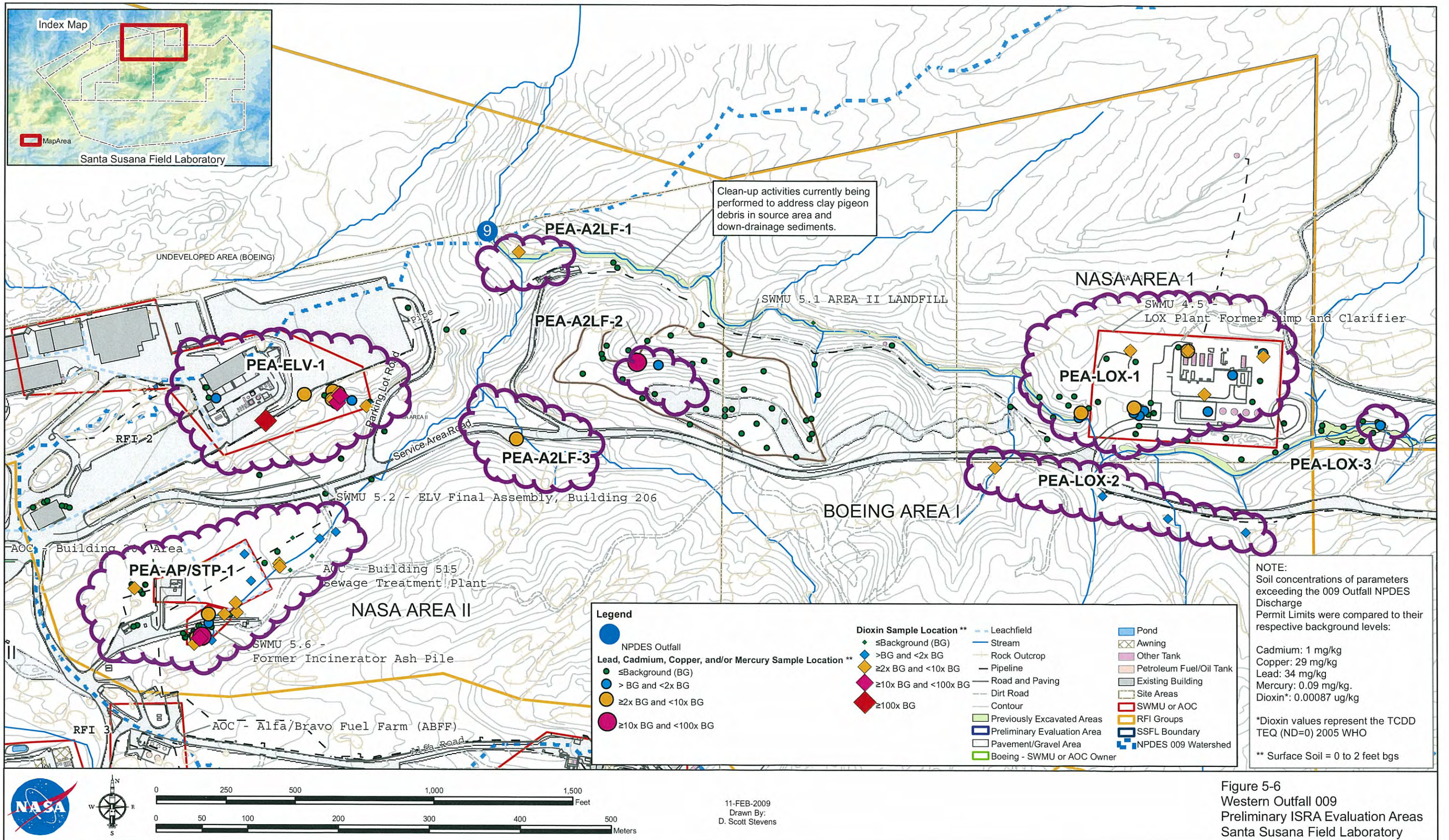
Cadmium, Copper, Lead, Mercury, Dioxin

| <u>Background Comparison Concentration</u> | <u>Dioxin Sample Location (<2 feet bgs)</u> |
|--|--|
| Cadmium: 1 mg/kg | ≤ Background (BG) |
| Copper: 29 mg/kg | >BG and <2x BG |
| Lead: 34 mg/kg | ≥2x BG and <10x BG |
| Dioxin: 0.00087 µg/kg | ≥10x BG and <100x BG |
| Mercury: 0.09 mg/kg | |

Cadmium, Copper, Lead, and/or Mercury

| <u>Sample Location (<2 feet bgs)</u> |
|---|
| ≤ Background (BG) |
| >BG and <2x BG |
| ≥2x BG and <10x BG |
| ≥10x BG and <100x BG |
| ≥100x |





Glenn Jaffe

From: Jeff Humble [JHUMBLE@dfg.ca.gov]
Sent: Thursday, May 28, 2009 10:56 AM
To: Glenn Jaffe
Subject: Re: FW: CDFG approval of HV SAA extension for 2009

any amendments become part of that streambed agreement. therefore, any extension to that agreement would apply to the original SAA and all amended aspects

Jeff Humble
Environmental Scientist
CA Department of Fish and Game
P.O. Box 1179
Ventura, CA 93002
Phone/Fax (805) 652-1868
JHumble@dfg.ca.gov

>>> Glenn Jaffe <Glenn.R.Jaffe@us.mwhglobal.com> 5/28/2009 8:56 AM >>>

Jeff, hope all is well. A quick question. CDFG approved the extension for the HVIM SAA (attached) back in December 2008, as the SAA comes due in December each year. You issued the attached extension. Since we amended this SAA to include work in Northern Drainage, as well as some other little projects like the Dam Maintenance (brush removal, as you recall), does the extension letter have to reference these amendments? As it reads now, it sounds like only the HVIM work is OK, and any changes are not approved? Can I get your take on this...

Thanks Glenn

From: Blair, Lori N [lori.n.blair@boeing.com]
Sent: Wednesday, June 03, 2009 8:59 AM
To: Peter Raftery; Cassandra Owens
Cc: Lenox, Arthur J; Dixie Hambrick; Alexander Fischl; richard.s.lainhart@usace.army.mil; Beth.Vaughan@CH2M.com; Jeremy.Hilliard@CH2M.com; Daniel.Jablonski@CH2M.com; Allen.Elliott@nasa.gov; sslaten@nasa.gov; Bill.McElroy@CH2M.com
Subject: Response to question: ISRA Excavation Areas Outfall 009, Maps, and Volumes

Peter - please find responses to your recent questions on June 2 below...

A. Regarding his Item 2: Correct. No excavation maps were included in the document for the ELV-1A and ELV-1B areas as these PEAs were not identified and carried forward as ISRA areas.

B. Regarding his Item 3: We've re-looked at the information at issue. While there are no errors involved, I can understand the point of confusion. In order to track the explanations, reference to Table 4-2, Figure 4-2, Table 4-5, Figure 4-3, Page 4-8, and Appendix Figure D-2 (corresponding to Figure 4-3) in the ISRA Work Plan is needed.

The soil volumes in Table 4-2 were based on the gross geometric shapes in Figure 4-2 (not those in Appendix Figure D-2 or Figure 4-3). Table 4-5, intended to be a PEA synopsis table, carried forward those Table 4-2 volume estimates, but increased them by the 30% fluff factor. The text (Page 4-8) then discusses the considerations to refine and identify the ELV-1C and ELV-1D PEAs as ISRA areas, subsequently shown in Figure 4-3 (and Appendix Figure D-2).

The point of confusion is that the excavated surface areas and volumes associated with these 2 ISRA areas did not end up getting tabulated or otherwise identified in the document. Here is the corresponding information:

- The surface areas for the "proposed excavation areas" at these 2 ISRA areas were independently calculated and verified from the AutoCAD drawings by NASA (based on Figure 4-3) and CH2M HILL as approximately 2,400 ft² (267 yd²) and 3,978 ft² (442 yd²) for the ELV-1C and ELV-1D ISRA areas, respectively.
- Based on the 2-foot (0.67-yard) average excavation depths (Tables 4-2 and 4-5), the rounded soil excavation volumes are estimated as 179 yd³ and 296 yd³ for the 1C and 1D areas, respectively.
- Subsequently applying the 30% fluff factor (multiplier of 1.30), the rounded soil excavation volumes are estimated as 233 yd³ and 385 yd³ for the 1C and 1D areas, respectively.

We need to discuss the best way to provide the clarification to the Board.

Bill McElroy, P.E. (FL), C.G.W.P
Vice-President and GNV Area Manager
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Fax: 352-271-4874
Mobile: 404-915-0396
www.ch2mhill.com

-----Original Message-----

From: Peter Raftery [mailto:praftery@waterboards.ca.gov]
Sent: Tuesday, June 02, 2009 11:22 AM
To: Blair, Lori N
Subject: ISRA Excavation Areas Outfall 009, Maps, and Volumes

Lori:

A draft approval letter for the ISRA Work Plan is being reviewed. I am looking over the excavation maps and volumes, and have a couple of observations.

- 1) The excavation volumes for Outfall 008 are fairly close to my estimates.
- 2) For Outfall 009 there are no excavation maps for elv-1 or elv-1b.
- 3) For elv-1d the volume estimate in the work plan (table 4-2) is twice what I estimate, based on the drawing (D-2). I measured a figure scale of about 65'/inch and estimated a rectangle 170' by 30', with 2 feet of excavation. These lengths are in agreement with the lengths posted on D-2. This gives about 380 cubic yards. The estimate in the work plan is 830 cubic yards. The area in the work plan is 1240 sq yds (11,160 sq ft) and mine is 10,200 sq ft. The excavation area I used would need to be >4' for the volumes to be similar. The work plan estimates 2 feet of excavation.

Did you plan to have excavation figures for elv-1 and elv-1b? Please comment on the volume discrepancy.

I attached the spreadsheet I used for the estimate.

Thanks,

Peter

Peter J. Raftery, PG, CHG
Engineering Geologist
Los Angeles Regional Water Quality Control Board 320 W. 4th Street Los Angeles, Ca 90013 ph
213.576.6724 fx 213.576.6717

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Department of Toxic Substances Control

Linda S. Adams
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Maziar Movassaghi
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Arnold Schwarzenegger
Governor

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

June 4, 2009

Final Interim Source Removal Action (ISRA) Work Plan, Santa Susana Field Laboratory, Ventura County, California, dated May 2009

Dear Ms. Cassandra Owens,

Staff from the Santa Susana Field Laboratory (SSFL) team of the Department of Toxic Substances Control (DTSC) reviewed the *Final Interim Source Removal Action (ISRA) Work Plan (Work Plan)* submitted by The Boeing Company (Boeing). Attached is a GSU Review Memorandum of ISRA Workplan prepared by Buck King dated June 4, 2009.

It is our understanding that the project described in the *Work Plan* is being done pursuant to a Cleanup and Abatement Order (CAO) issued to Boeing by the Regional Water Quality Control Board (RWCQB) on December 3, 2008 and that the CAO was issued in response to exceedances of NPDES surface water outfall permit limits for the Happy Valley drainage (Outfall 008; lead) and the Northern drainage (Outfall 009; copper, lead, dioxins, pH, and oil & grease). The CAO requires Boeing to address the soil source areas that contribute to the release of the contaminants that exceeded NPDES limits. These areas that drain to the Outfall 008 and 009 are under investigation by DTSC for chemical and potential radiological contamination. Administrative Area 1 drains into Outfall 8; Administrative Areas 1, 2, and 3 drain into Outfall 009.

Our review identified the following three items requiring addition information or clarification.

The *Work Plan* indicates that Soil Management Plan will be prepared prior to implementation of field work. The future Soil Management Plans (SMPs) should include chemical characterization and waste characterization sampling strategies for hazardous waste and non hazardous waste offsite disposal. The SMPs should include a discussion of the radiologic screening process for soils and soil management procedures.

Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
Page 2

The *Work Plan* does not indicate that soil confirmation sampling consistent with EPA Method 5035 sample collection method for analysis of volatile organic compounds (VOC) in soil. Future plans should indicate use of EPA Method 5035 sample collection for soil sampling and VOC analysis.

The *Work Plan* indicates that soil stock pile air emissions will be evaluated using a photo ionization detector (PID) but does not include monitoring criteria. Future plans should include the soil stockpile PID action levels used to fulfill the requirements for Ventura County Air Pollution Control District.

If you have any questions, please contact Buck King (510) 540-3955.



Mr. Buck King, C.HG
Senior Engineering Geologist
Santa Susana Field Laboratory (SSFL) Project Team

Attachment: GSU Review Memorandum of ISRA Workplan prepared by Buck King dated June 4, 2009

cc:

Mr. Thomas D. Gallacher
Director – Safety Health and Environmental Affairs
The Boeing Company
5800 Woolsey Canyon Road
MC - T487
Canoga Park, CA 91304-1148

Mr. Allen Elliott
National Aeronautics and Space Administration
George C. Marshall Space Flight Center
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Marshall Space Flight Center, AL 35812

Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
Page 3

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Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
Page 4

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Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
Page 5

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Linda S. Adams
Secretary for
Environmental Protection



Department of Toxic Substances Control

Maureen F. Gorsen, Director
700 Heinz Avenue
Berkeley, California 94710



Arnold Schwarzenegger
Governor

To: Gerard Abrams, C.HG.
Senior Engineering Geologist
Northern California Permitting and Corrective Action Branch
Hazardous Waste Management Program

From: Buck King, C.HG. *Buck King*
Senior Engineering Geologist
Geologic Services Branch

Date: June 4, 2009

Re: Final Interim Source Removal Action Work Plan

PCA: 22120

Site Code: 530033-48

MPC: 37

Staff from the Geological Service Unit (GSU) of the Geologic Services Branch of the Department of Toxic Substances Control (DTSC) has reviewed the work plan titled *Final Interim Source Removal Action Work Plan, Santa Susana Field Laboratory, Ventura County California* (ISRA Work Plan) dated May 2009.

Discussion of Responsiveness to Previous DTSC Comments and Concerns

The ISRA Work Plan was reviewed for its responses to previous DTSC comments and concerns (DTSC Letter from Mr. Jim Pappas to Ms. Cassandra Owens dated March 19, 2009) identified during review of the Preliminary ISRA Work Plan draft version of document dated February 2009. The DTSC letter identified the following concerns.

1. Soil background comparison concentrations for the Santa Susana Field Laboratory are under review and will likely be revised following completion of studies in Spring 2010. Radiological background study results should also become available from EPA Region IX in Spring 2010. Soil excavation areas identified in ISRA Work Plan reflect draft soil background values and may require additional evaluation and excavation upon completion of ongoing background studies in Spring 2010.
2. Historic management of radioactive materials and preliminary assessment data indicative of the presence of radionuclides at the facility should be addressed in

ISRA work planning documents. The ISRA Work Plan should indicate that excavated soil identified for disposal will be screened for radionuclides.

3. Removal of source soil materials from affected watersheds to address NPDES exceedances at Outfalls 008 and 009 will not necessarily mean that those areas will meet Senate Bill (SB) 990 standards upon completion of soil removal action.

The ISRA Work Plan is responsive to Concern 1 and indicates (page 5-1) that the plan uses the 2005 background comparison concentrations in evaluation of soil excavation areas and that when the revised soil background levels are approved by DTSC, the ISRA soil source areas will be reviewed and ISRA area recommendations will be amended as warranted.

The ISRA Work Plan is partially responsive to Concern 2 and includes a brief reference (page 6-4) to conducting radiologic screening during characterization of excavated soils for offsite disposal. The text indicates that radiological screening will be similar to procedures established for ongoing cleanup activities in the Northern Drainages. Work planning documents should include more information describing ongoing radiologic screening occurring in the Northern Drainage area. The description should be clearly documented in Soil Management Plans prior to implementation.

The ISRA Work Plan is silent to Concern 3 regarding SB 990 compliance and is clear in its identification of Cleanup and Abatement Order (CAO R4-2004-0111 and amendments) as the regulatory basis for the ISRA. The SB 990 compliance issues will not be addressed by the ISRA.

Discussion of Concerns Identified by GSU in ISRA Work Plan

The ISRA Work Plan was reviewed for its technical content. GSU identified the following items that require additional clarification in subsequent ISRA work planning documents.

1. The ISRA Work Plan indicates that several additional planning documents will be prepared including, Site Specific Health and Safety Plan, Erosion Control Plan, Soil Management Plan, and Transportation Plan prior to implementation of field work. Section 6.3 *Additional Remedial Planning Activities* should be revised to include additional information requirements for the future Soil Management Plans (SMPs). The SMPs should include area specific chemical characterization and waste characterization sampling strategies. Strategies for hazardous waste and non hazardous waste off site disposal should be described. The SMPs should at a minimum include a discussion of the radiologic screening process and soil management procedures and discussion of contingencies to be followed when encountering unforeseen items such as explosives.

Mr. Gerard Abrams
June 4, 2009
Page 3 of 3

2. The Chemicals of Concern (COCs) used to define preliminary excavation areas (PEAs) in Outfall 009 watershed include volatile organic compound (VOC) trichloroethene (TCE). Soil confirmation sampling description (page 5-4) should include clear reference to use of sampling method EPA Method 5035 for analysis of VOCs in soil.
3. The description of soil stock pile air emissions evaluation using a photo ionization detector (PID) is incomplete (page 6-3). The SMP should include at a minimum the soil stockpile PID action levels used to fulfill the requirements for Ventura County Air Pollution Control District.

Conclusions

The GSU recommends that subsequent drafts of ISRA Work Plan be revised in response to the request for additional information described above regarding, 1) future SMP requirements, 2) EPA Method 5035 sample collection methodology requirements for soil VOC sampling, and 3) PID monitoring criteria for soil stockpile air quality monitoring and soil management.

If you have any questions or comments, please contact me at (510) 540-3955

Cc: File



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

June 5, 2009

Mr. Thomas D. Gallacher, Director
SSFL – Safety, Health & Environmental Affairs
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

COMMENTS AND REQUIREMENTS RELATED TO THE FINAL INTERIM SOURCE REMOVAL ACTION WORK PLAN SUBMITTED IN RESPONSE TO CALIFORNIA WATER CODE SECTION 13304 ORDER – THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY, CANOGA PARK, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Mr. Gallacher:

Los Angeles Regional Water Quality Control Board (Regional Board) staff have reviewed the May 2009 *Final Interim Source Removal Action (ISRA) Work Plan Santa Susana Field Laboratory, Ventura County, California* (Final Work Plan) that was submitted to the Regional Board on May 1, 2009. The Work Plan was submitted in response to the California Water Code section 13304 Order, dated December 3, 2008, (Order) issued to Boeing by the Regional Board. Regional Board staff conditionally approved the approach and commented on the February 2009 *Preliminary Interim Source Removal Action (ISRA) Workplan Santa Susana Field Laboratory, Ventura County, California* in a letter dated April 20, 2009. The Final Work Plan provides additional details for source removal in outfalls 008 and 009, and addresses the comments in the April 20, 2009 Regional Board letter.

The Regional Board's April 20, 2009 letter required that, by May 1, 2009, Boeing:

- 1) Identify the approach for preventing contaminants in any soil excavated or otherwise disturbed while implementing the cleanup from being mobilized during wind or rain events.
- 2) Discuss how the responsible parties, Boeing and NASA, will coordinate responsibilities and cleanup of the watersheds related to outfalls 008 and 009.
- 3) All documents related to compliance with the December 3, 2008 Order must be posted on the internet concurrent with submittal to the Regional Board.

Requirement 1 was adequately addressed in the Final Work Plan section 6.2 (Erosion Control). Requirement 2 was not adequately addressed, and requirement 3 was modified in a Regional Board May 22, letter, approving Boeing's request for a 10 day window to upload documents to the Boeing surface water website.

The Regional Board has the following comments specific to the Final Work Plan:

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

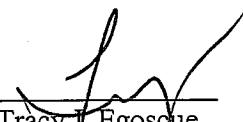
June 3, 2009

- 1) The statement that NASA has funding constraints appears in several places in the document. Please clarify the significance of these constraints. Do they have the potential to significantly influence the project schedule?
- 2) Based on Figure 3-1, the area with the highest copper and lead concentrations in soil in the outfall 008 area appears to have been excavated during the perchlorate cleanup. Please explain the need to re-excavate this area.
- 3) It is indicated in Appendix B that rainfall runoff carries approximately 1000 tons of soil through outfall 008 each year. Based on field measurements, verify the reasonableness of this estimate.
- 4) Section 5-5, "Confirmation Soil Sampling" indicates that samples will be collected at "varying depths." Staff understands that samples will be collected at a range of depths below the surface of the excavation. Please clarify the proposed sampling depths in the Final Work Plan.
- 5) The sequence of source cleanups in the watersheds for outfalls 008 and 009 is not clear in the Final Work Plan. The schedule of the NASA work in the eastern 009 area is not well integrated into the overall schedule discussion. The Final Work Plan shall include a combined schedule with both NASA and non-NASA work and also include a chart that indicates the organizational responsibilities for each area cleanup task.
- 6) The Final Work Plan does not adequately describe radiological monitoring during the cleanup. Monitoring for radiological contamination is an important activity being conducted during soil excavation. The details of radiological screening shall be clearly presented in the Final Work Plan.

No later than **June 19, 2009**, Boeing shall provide the Regional Board with your responses to these comments. As appropriate, the responses are to be made in an addendum to the Final Work Plan or as changes to the text of the Final Work Plan. These requirements are made under the Regional Board's California Water Code section 13304 Order, dated December 3, 2008.

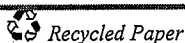
Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.

Sincerely,


Tracy J. Egosque
Executive Officer

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District

California Environmental Protection Agency



Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

cc list continues on next page
cc list continued

Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District
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Ms. Rondi Guthrie, c/o Assemblywoman Audra Strickland
Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
Ms. Linda Parks, Ventura County Board of Supervisors
Ms. Louise Rishoff, c/o Assembly member Julia Brownley
Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
Mr. David Beckman, National Resources Defense Council
Ms. Lori Blair, Boeing
Mr. William Bowling
Mr. Michael Bubman, c/o Bell Creek Homeowners Association
Ms. Jeannie Chari
Mr. Paul Costa, Boeing
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Mr. Allen Elliott, National Aeronautics and Space Administration
Mr. John Farrow, M. R. Wolfe & Associates, P.C.
Ms. Merrilee Fellows, National Aeronautics and Space Administration
Mr. Tom Ford, Santa Monica Bay Keeper
Dr. Mark Gold, Heal the Bay
Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
Mr. Philip Isorena, State Water Resources Control Board, Division of Water Quality
Ms. Kirsten James, MESM, Staff Scientist, Heal the Bay
Ms. Stephanie Jennings, United States Department of Energy
Ms. Barbara Johnson, Susana Knolls Homeowners, Inc.
Dr. Michael Josselyn, WRA, Inc.
Mr. Thomas Johnson, ETEC Project Manager, United States Department of Energy
Ms. Teresa Jordan
Mr. Thomas Kelly, Environmental Protection Agency, Region 9, (WTR-5)



Mr. Thomas D. Gallacher
The Boeing Company

- 4 -

June 3, 2009

cc list continues on next page
cc list continued

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Mr. Buck King Department of Toxic Substances Control, Sacramento
Ms. Bonnie Klea
Mr. Wayne Lee
Mr. Michael Levy, State Water Resources Control Board, Office of Chief Counsel
Mr. Michael Lopez, U.S. Department of Energy, Oakland
Mr. John Luker
Ms. Carissa Marsh, The Simi Valley Acorn
Ms. Marie Mason
Mr. Daniel Maccabee, Brandeis-Bardin Institute
Mr. Nicole Moutoux, Environmental Protection Agency, Region 9
Mr. Jerry Murphy, c/o Bell Creek Homeowners Association
Mr. Jim Pappas, Department of Toxic Substances Control, Sacramento
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Mr. Jack M. Wallace
Ms. Christina Walsh
Ms. Marge Weems
Ms. Darla Weiss, Ventura County Watershed Protection District
Ms. Mary Wiesbrock
Dr. Daniel Wiseman, West Hills Neighborhood Council-Santa Monica Mountains Area
Committee
Mr. Anthony Zepeda
Mr. Cybil Zeppieri
Mr. Lori Zinkan

California Environmental Protection Agency



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cc list continues on next page
cc list continued

Ms. Elizabeth Zlotnik
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City Manager, City of Simi Valley
City of Los Angeles, Bureau of Engineering, Wastewater Systems Engineering Division
Department of Health Services, Public Water Supply Branch
Department of Interior, U.S. Fish and Wildlife Service
Environmental Protection Agency, Region 9, Office of Radiation Programs
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Friends of the Los Angeles River
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles County, Department of Health Services
Los Angeles County, Department of Public Works, Environmental Programs Division
Masry & Vititoe Law Offices
NOAA, National Marine Fisheries Service
Simi Valley Library
The Boeing Company Santa Susana Field Laboratory
U.S. Army Corps of Engineers
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Ventura County Air Pollution Control District
Ventura County Environmental Health Division
Ventura County Public Works
Water Replenishment District of Southern California



Glenn Jaffe

From: Jeff Humble [JHUMBLE@dfg.ca.gov]
Sent: Sunday, June 07, 2009 3:28 PM
To: Glenn Jaffe
Subject: Proposed work

Glenn,

Can you pdf me just the cover letter for the latest packet of info that was sent to me that we discussed the other day so I can save it to my computer. The info looks good and I will not be responding formally since this work is already covered under the existing SAA

thanks

Jeff Humble
Environmental Scientist
CA Department of Fish and Game
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California Regional Water Quality Control Board

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Arnold Schwarzenegger
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June 10, 2009

Mr. Thomas D. Gallacher, Director
SSFL – Safety, Health & Environmental Affairs
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

DEPARTMENT OF TOXIC SUBSTANCES CONTROL COMMENTS ON THE FINAL INTERIM SOURCE REMOVAL ACTION WORK PLAN SUBMITTED IN RESPONSE TO CALIFORNIA WATER CODE SECTION 13304 ORDER – THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY, CANOGA PARK, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

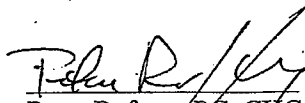
Dear Mr. Gallacher:

The Los Angeles Regional Water Quality Control Board (Regional Board) received comments from the Department of Toxic Substances Control regarding the May 2009 *Final Interim Source Removal Action (ISRA) Work Plan Santa Susana Field Laboratory, Ventura County, California* (Final Work Plan). The comments are attached.

No later than **June 19, 2009**, Boeing shall provide the Regional Board with your responses to these comments. As appropriate, the responses are to be made in an addendum to the Final Work Plan or as changes to the text of the Final Work Plan. These requirements are made under the Regional Board's California Water Code section 13304 Order, dated December 3, 2008.

Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.

Sincerely,


Peter Raftery, PG, CHG
Engineering Geologist
Site Cleanup I Unit

attachment: DTSC comment memorandum, June 4, 2009

cc list next page

California Environmental Protection Agency



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Our mission is to preserve and enhance the quality of California's water resources for the benefit of present and future generations.

Mr. Thomas D. Gallacher
The Boeing Company

- 2 -

June 10, 2009

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District
Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District
Mr. Jarrod Degonia, c/o Assemblymember Cameron Smyth
Ms. Rondi Guthrie, c/o Assemblywoman Audra Strickland
Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
Ms. Linda Parks, Ventura County Board of Supervisors
Ms. Louise Rishoff, c/o Assembly member Julia Brownley
Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
Mr. David Beckman, National Resources Defense Council
Ms. Lori Blair, Boeing
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Mr. Michael Bubman, c/o Bell Creek Homeowners Association
Ms. Jeannie Chari
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Mr. David Cooper, Environmental Protection Agency, Region 9
Ms. Elizabeth Crawford
Ms. Nicole Doner, Ventura County Planning Division
Ms. Ginn Doose
Mr. Allen Elliott, National Aeronautics and Space Administration
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Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
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Mr. Thomas D. Gallacher
The Boeing Company

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June 10, 2009

cc list continued

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June 10, 2009

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Linda S. Adams
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Arnold Schwarzenegger
Governor

Regional Water Quality Control Board
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320 West 4th Street, Suite 200
Los Angeles, CA 90013

June 4, 2009

Final Interim Source Removal Action (ISRA) Work Plan, Santa Susana Field Laboratory, Ventura County, California, dated May 2009

Dear Ms. Cassandra Owens,

Staff from the Santa Susana Field Laboratory (SSFL) team of the Department of Toxic Substances Control (DTSC) reviewed the *Final Interim Source Removal Action (ISRA) Work Plan (Work Plan)* submitted by The Boeing Company (Boeing). Attached is a GSU Review Memorandum of ISRA Workplan prepared by Buck King dated June 4, 2009.

It is our understanding that the project described in the *Work Plan* is being done pursuant to a Cleanup and Abatement Order (CAO) issued to Boeing by the Regional Water Quality Control Board (RWQCB) on December 3, 2008 and that the CAO was issued in response to exceedances of NPDES surface water outfall permit limits for the Happy Valley drainage (Outfall 008; lead) and the Northern drainage (Outfall 009; copper, lead, dioxins, pH, and oil & grease). The CAO requires Boeing to address the soil source areas that contribute to the release of the contaminants that exceeded NPDES limits. These areas that drain to the Outfall 008 and 009 are under investigation by DTSC for chemical and potential radiological contamination. Administrative Area 1 drains into Outfall 8; Administrative Areas 1, 2, and 3 drain into Outfall 009.

Our review identified the following three items requiring additional information or clarification.

The *Work Plan* indicates that Soil Management Plan will be prepared prior to implementation of field work. The future Soil Management Plans (SMPs) should include chemical characterization and waste characterization sampling strategies for hazardous waste and non hazardous waste offsite disposal. The SMPs should include a discussion of the radiologic screening process for soils and soil management procedures.

Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
Page 2

The *Work Plan* does not indicate that soil confirmation sampling consistent with EPA Method 5035 sample collection method for analysis of volatile organic compounds (VOC) in soil. Future plans should indicate use of EPA Method 5035 sample collection for soil sampling and VOC analysis.

The *Work Plan* indicates that soil stock pile air emissions will be evaluated using a photo ionization detector (PID) but does not include monitoring criteria. Future plans should include the soil stockpile PID action levels used to fulfill the requirements for Ventura County Air Pollution Control District.

If you have any questions, please contact Buck King (510) 540-3955.



Mr. Buck King, C.H.G.
Senior Engineering Geologist
Santa Susana Field Laboratory (SSFL) Project Team

Attachment: GSU Review Memorandum of ISRA Workplan prepared by Buck King dated June 4, 2009

cc:

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Ms. Cassandra Owens
June 4, 2009
Final Interim Source Removal Action Work Plan
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Ms. Cassandra Owens
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Final Interim Source Removal Action Work Plan
Page 4

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Ms. Cassandra Owens
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Final Interim Source Removal Action Work Plan
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Department of Toxic Substances Control

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To: Gerard Abrams, C.H.G.
Senior Engineering Geologist
Northern California Permitting and Corrective Action Branch
Hazardous Waste Management Program

From: Buck King, C.H.G. *Buck King*
Senior Engineering Geologist
Geologic Services Branch

Date: June 4, 2009

Re: Final Interim Source Removal Action Work Plan

PCA: 22120

Site Code: 530033-48

MPC: 37

Staff from the Geological Service Unit (GSU) of the Geologic Services Branch of the Department of Toxic Substances Control (DTSC) has reviewed the work plan titled *Final Interim Source Removal Action Work Plan, Santa Susana Field Laboratory, Ventura County California* (ISRA Work Plan) dated May 2009.

Discussion of Responsiveness to Previous DTSC Comments and Concerns

The ISRA Work Plan was reviewed for its responses to previous DTSC comments and concerns (DTSC Letter from Mr. Jim Pappas to Ms. Cassandra Owens dated March 19, 2009) identified during review of the Preliminary ISRA Work Plan draft version of document dated February 2009. The DTSC letter identified the following concerns.

1. Soil background comparison concentrations for the Santa Susana Field Laboratory are under review and will likely be revised following completion of studies in Spring 2010. Radiological background study results should also become available from EPA Region IX in Spring 2010. Soil excavation areas identified in ISRA Work Plan reflect draft soil background values and may require additional evaluation and excavation upon completion of ongoing background studies in Spring 2010.
2. Historic management of radioactive materials and preliminary assessment data indicative of the presence of radionuclides at the facility should be addressed in

Mr. Gerard Abrams
June 4, 2009
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ISRA work planning documents. The ISRA Work Plan should indicate that excavated soil identified for disposal will be screened for radionuclides.

3. Removal of source soil materials from affected watersheds to address NPDES exceedances at Outfalls 008 and 009 will not necessarily mean that those areas will meet Senate Bill (SB) 990 standards upon completion of soil removal action.

The ISRA Work Plan is responsive to Concern 1 and indicates (page 5-1) that the plan uses the 2005 background comparison concentrations in evaluation of soil excavation areas and that when the revised soil background levels are approved by DTSC, the ISRA soil source areas will be reviewed and ISRA area recommendations will be amended as warranted.

The ISRA Work Plan is partially responsive to Concern 2 and includes a brief reference (page 6-4) to conducting radiologic screening during characterization of excavated soils for offsite disposal. The text indicates that radiological screening will be similar to procedures established for ongoing cleanup activities in the Northern Drainages. Work planning documents should include more information describing ongoing radiologic screening occurring in the Northern Drainage area. The description should be clearly documented in Soil Management Plans prior to implementation.

The ISRA Work Plan is silent to Concern 3 regarding SB 990 compliance and is clear in its identification of Cleanup and Abatement Order (CAO R4-2004-0111 and amendments) as the regulatory basis for the ISRA. The SB 990 compliance issues will not be addressed by the ISRA.

Discussion of Concerns Identified by GSU in ISRA Work Plan

The ISRA Work Plan was reviewed for its technical content. GSU identified the following items that require additional clarification in subsequent ISRA work planning documents.

1. The ISRA Work Plan indicates that several additional planning documents will be prepared including, Site Specific Health and Safety Plan, Erosion Control Plan, Soil Management Plan, and Transportation Plan prior to implementation of field work. Section 6.3 *Additional Remedial Planning Activities* should be revised to include additional information requirements for the future Soil Management Plans (SMPs). The SMPs should include area specific chemical characterization and waste characterization sampling strategies. Strategies for hazardous waste and non hazardous waste off site disposal should be described. The SMPs should at a minimum include a discussion of the radiologic screening process and soil management procedures and discussion of contingencies to be followed when encountering unforeseen items such as explosives.

Mr. Gerard Abrams

June 4, 2009

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2. The Chemicals of Concern (COCs) used to define preliminary excavation areas (PEAs) in Outfall 009 watershed include volatile organic compound (VOC) trichloroethene (TCE). Soil confirmation sampling description (page 5-4) should include clear reference to use of sampling method EPA Method 5035 for analysis of VOCs in soil.
3. The description of soil stock pile air emissions evaluation using a photo ionization detector (PID) is incomplete (page 6-3). The SMP should include at a minimum the soil stockpile PID action levels used to fulfill the requirements for Ventura County Air Pollution Control District.

Conclusions

The GSU recommends that subsequent drafts of ISRA Work Plan be revised in response to the request for additional information described above regarding, 1) future SMP requirements, 2) EPA Method 5035 sample collection methodology requirements for soil VOC sampling, and 3) PID monitoring criteria for soil stockpile air quality monitoring and soil management.

If you have any questions or comments, please contact me at (510) 540-3955

Cc: File

The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1140

Via Electronic and Federal Express

June 19, 2009
In reply refer to SHEA-108809

Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, CA 90013

Attention: Mr. Peter Raftery

Subject: Addendum to the Final Interim Source Removal Action (ISRA) Work Plan
Submitted in Response to California Water Code Section 13304 Order (NPDES
NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Mr. Raftery:

In response to the June 5, 2009 Los Angeles Regional Water Quality Control Board's (Regional Board) comments and requirements related to the Final Interim Source Removal Action (ISRA) Work Plan, the Boeing Company (Boeing), on behalf of Boeing and the National Aeronautics and Space Administration (NASA), wishes to provide the attached Addendum to the Final ISRA Work Plan submitted on May 1, 2009. The attached addendum also provides responses to the Regional Board's June 10, 2009 transmittal of comments from the Department of Toxic Substances Control comments on the May 1, 2009 Final ISRA Work Plan.

If you have any questions or require anything further, please contact Lori Blair at 818-466-8741.

Sincerely,



Tom Gallacher
Director, Santa Susana Field Laboratory
Environment, Health, and Safety

LNB:bjc

Attachments:

- 1) Response to RWQCB and DTSC Comments on the Final ISRA Work Plan
- 2) June 5, 2009 RWQCB Comments and Requirements related to the Final ISRA Work Plan
- 3) June 10, 2009, Transmittal of DTSC Comments on the Final ISRA Workplan



Mr. P. Raftery, RWQCB (SHEA-108809)
June 19, 2009
Page 2

cc: Ms. Cassandra Owens, RWQCB
Mr. Allen Elliott, NASA
Mr. Steve Slaten, NASA
Mr. Norman Riley, DTSC
Mr. James Pappas, DTSC
Mr. Buck King, DTSC
Mr. Gerard Abrams, DTSC



TO: Art Lenox/Lori Blair, Boeing
Allen Elliott/Steve Slaten, NASA

DATE: June 19, 2009

CC: Bill McElroy, CH2M HILL

REF: 1891614

FROM: Dixie Hambrick/Alex Fischl, MWH

SUBJECT: Response to RWQCB and DTSC Comments on the Final ISRA Work Plan

This memorandum serves as an addendum to the May 2009 Final Interim Source Removal Action (ISRA) Work Plan (MWH, 2009a). It has been prepared to respond to Regional Water Quality Control Board (RWQCB) and Department of Toxic Substances Control (DTSC) comments on the May 2009 Final ISRA Work Plan. The Work Plan summarizes the results of the ISRA evaluation process conducted before May 1, 2009 and presents recommended remedial actions to control releases of constituents of concern (COCs) to surface water within areas of the Outfall 008 and Outfall 009 watersheds at the Santa Susana Field Laboratory (SSFL). The Work Plan was prepared by MWH and CH2M HILL on behalf of The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles Regional Water Quality Control Board (RWQCB) dated December 3, 2008 (RWQCB, 2008). This memorandum was prepared by MWH and CH2M HILL on behalf of Boeing and NASA.

The RWQCB comments were provided to Boeing and NASA in a letter dated on June 5, 2009 (RWQCB, 2009a). The DTSC comments were submitted in a letter to the RWQCB on June 4, 2009 (DTSC, 2009), which the RWQCB provided in a letter to Boeing on June 10, 2009 (RWQCB, 2009b). Both agency comment letters initially comment on how the Final ISRA Work Plan addressed their comments on the Preliminary ISRA Work Plan, then present comments on the Final ISRA Work Plan. Comments by the RWQCB and DTSC on the Preliminary ISRA Work Plan that were not adequately addressed in the Final ISRA Work Plan were restated as comments to the Final ISRA Work Plan in the letters. Comments from the RWQCB and DTSC

on the Final ISRA Work Plan are reproduced below in their entirety. Responses are provided below each comment.

1) RESPONSE TO RWQCB COMMENTS (RWQCB, 2009b)

RWQCB Comment #1: *The statement that NASA has funding constraints appears in several places in the document. Please clarify the significance of these constraints. Do they have the potential to significantly influence the project schedule?*

Response: Federal funds are in place to conduct those ISRA activities on NASA property that are scheduled for 2009, which consists of activities related to the removal of soil at ELV-1C and ELV-1D. Statements in the Final ISRA Work Plan about federal funding constraints for work to be performed on NASA property refer to funding for activities to be performed in 2010 and 2011, which consist of activities to be performed at the remainder of ISRA Areas on NASA property in the Outfall 009 watershed. Currently, NASA funding constraints are not anticipated to delay the ISRA project schedule.

RWQCB Comment #2: *Based on Figure 3-1, the area with the highest copper and lead concentrations in soil in the outfall 008 area appears to have been excavated during the perchlorate cleanup. Please explain the need to re-excavate this area.*

Response: The soils represented by the sample results in question are sidewalls of excavations completed during perchlorate cleanup that were subsequently covered with backfill soils during site restoration. These soils, although possibly slightly disturbed during site restoration activities in 2003, remain in place and thus are recommended for excavation as part of the ISRA program.

RWQCB Comment #3: *It is indicated in Appendix B that rainfall runoff carries approximately 1000 tons of soil through outfall 008 each year. Based on field measurements, verify the reasonableness of this estimate.*

Response: The Revised Universal Soil Loss Equation (RUSLE) model estimates the average annual sediment yield for the Outfall 008 watershed to be 1,000 tons (Appendix B, Table 2).

This value represents the average amount of sediment that is eroded and potentially transported to drainages within the Outfall 008 watershed each year as a result of rainfall. The average annual suspended sediment load estimated for stormwater discharges at the Outfall 008 sample point was calculated to be 5.2 tons per year (Appendix B, Table 7). This value was the result of multiplying the average annual runoff volume at Outfall 008 (15 acre feet per year) calculated using the calibrated Storm Water Management Model (SWMM) and the average TSS concentration measured in runoff at Outfall 008 (257 mg/L) calculated from eleven grab samples collected at the NPDES outfall sample point. The large difference between the amount of estimated erosion sediment being transported to the Outfall 008 drainages annually (1,000 tons) and the estimated suspended sediment load discharged at Outfall 008 annually (5.2 tons) can be explained by the facts that (a) the TSS sample and measurement do not account for bedload, which may be a significant transported mass in the drainage, and (b) depression storage throughout the catchment and in the drainages captures significant amounts of eroded sediment prior to it reaching the Outfall 008 sample point.

RWQCB Comment #4: Section 5-5, “Confirmation Soil Sampling” indicates that samples will be collected at “varying depths”. Staff understands that samples will be collected at a range of depths below the surface of the excavation. Please clarify the proposed sampling depths in the Final Work Plan.

Response: Confirmation soil samples from excavation sidewalls will be collected at varying depths below ground surface, not at varying depths into the side wall. In future documents, this will be referred to as varying elevations within the sidewall.

RWQCB Comment #5: The sequence of source cleanups in the watersheds for outfalls 008 and 009 is not clear in the Final Work Plan. The schedule of the NASA work in the eastern 009 area is not well integrated into the overall schedule discussion. The Final Work Plan shall include a combined schedule with both NASA and non-NASA work and also include a chart that indicates the organizational responsibilities for each area cleanup task.

Response: The 2009 ISRA remedial actions include source removal from 7 locations within the Outfall 008 watershed on Boeing property and 2 locations within the Outfall 009 watershed on NASA property. Data gap sampling is currently being performed for the remaining ISRA

preliminary evaluation areas (PEAs) in the Outfall 009 watershed on Boeing and NASA property and is expected to be completed in 2010. Results of the data gap sampling will be used to refine the ISRA PEAs using the ISRA area identification process described in the Final ISRA Work Plan. A remedial alternatives evaluation will be performed on each ISRA area, with remedial actions planned for 2010 and 2011. Below is a responsibility matrix for the ISRA activities.

| Location | Data Gap Sampling | | Remedial Action Implementation | |
|---|-------------------|----------------|--------------------------------|-------------------|
| | Year | Responsibility | Year | Responsibility |
| Outfall 008 | | | | |
| CYN-1, DRG-1, HVS-1, -2A, -2B, -2C, -3 | 2009 | Boeing | 2009 | Boeing |
| Outfall 009 | | | | |
| ELV-1C, -1D | 2009 | NASA | 2009 | NASA ¹ |
| PEA-B1-1 | 2009/2010 | Boeing | 2010/2011 ² | Boeing |
| PEA-IEL-1 | 2009/2010 | Boeing | 2010/2011 ² | Boeing |
| PEA-A1LF-1 | 2009/2010 | Boeing | 2010/2011 ² | Boeing |
| PEA-A1LF-2 | 2009/2010 | Boeing | 2010/2011 ² | Boeing |
| PEA-LOX-1 | 2009/2010 | NASA | 2010/2011 ² | NASA |
| PEA-LOX-2 | 2009/2010 | Boeing | 2010/2011 ² | Boeing |
| PEA-LOX-3 | 2009/2010 | NASA | 2010/2011 ² | NASA |
| PEA-A2LF-1 | 2009/2010 | NASA | 2010/2011 ² | NASA |
| PEA-A2LF-2 | 2009/2010 | NASA | 2010/2011 ² | NASA |
| PEA-A2LF-3 | 2009/2010 | NASA | 2010/2011 ² | NASA |
| PEA-AP/STP-1 | 2009/2010 | NASA | 2010/2011 ² | NASA |

Notes:

¹ - NASA has contracted with Boeing to manage the activities related to this task on NASA property. NASA will provide support and input, as necessary.

² - Unknown at this time whether these ISRA preliminary evaluation areas (PEAs) will require remedial action. Data gap sampling for these PEAs has not yet been completed such that the ISRA Area identification process may be performed.

RWQCB Comment #6: *The Final Work Plan does not adequately describe radiological monitoring during the cleanup. Monitoring for radiological contamination is an important activity*

being conducted during soil excavation. The details of radiological screening shall be clearly presented in the Final Work Plan.

Response #6: Radiological screening is proposed to be conducted on excavated soils planned for offsite disposal. Section 6.3.2, Waste Characterization Samples, states “waste characterization samples will be analyzed for the required constituents for offsite disposal, including radiological screening. The procedures to perform radiological screening will be similar procedures to those established for ongoing cleanup activities in the Northern Drainage.” Radiological screening protocols will be included in the Soil Management Plan (SMP), which will be submitted to the RWQCB for review and approval prior to implementation. Other radiological monitoring during ISRA implementation activities is not planned based on the soil, groundwater, and surface water monitoring data collected in these watersheds (MWH, 2009b). However, as will be described in the SMP, if subsurface debris is encountered during ISRA implementation, additional radiological screening measures will be performed. These additional radiological screening measures for the ISRA project will be consistent with DTSC-approved procedures for cleanup in the Northern Drainage, and as required in the Area I and II Landfills investigation work plan.

2) RESPONSE TO DTSC COMMENTS (DTSC, 2009b)

DTSC Comment #1: *The ISRA Work Plan indicates that several additional planning documents will be prepared including, Site Specific Health and Safety Plan, Erosion Control Plan, Soil Management Plan, and Transportation Plan prior to implementation of field work. Section 6.3 Additional Remedial Planning Activities should be revised to include additional information requirements for the future Soil Management Plans (SMPs). The SMPs should include area specific chemical characterization and waste characterization sampling strategies. Strategies for hazardous waste and non hazardous waste off site disposal should be described. The SMPs should at a minimum include a discussion of the radiologic screening process and soil management procedures and discussion of contingencies to be followed when encountering unforeseen items such as explosives.*

Response: Section 6.3, Soil Management, states “a SMP will be prepared to support ISRA construction activities”. The project-specific SMP will include a detailed description of the following soil management procedures:

- Soil excavation, handling, stockpiling, and disposal procedures;
- Soil characterization procedures;
- Air monitoring procedures;
- Soil tracking, documentation, and reporting procedures;
- Radiological screening procedures;
- Unexploded ordnance (UXO) monitoring procedures; and
- Stockpile Best Management Practices (BMPs).

The SMP will be submitted to the RWQCB for review and approval prior to implementation.

DTSC Comment #2: *The Chemicals of Concern (COCs) used to define preliminary excavation areas (PEAs) in Outfall 009 watershed include volatile organic compound (VOC) trichloroethene (TCE). Soil confirmation sampling description (page 5-4) should include clear reference to use of sampling method EPA Method 5035 for analysis of VOCs in soil.*

Response: Section 5.5, Confirmation Soil Sampling, states “Soil samples will be collected and analyzed following DTSC-approved field sampling and analytical methods as specified in the QAPP or recently DTSC-approved work plans for the RFI.” The DTSC-approved analytical methods for VOC analysis is EPA Method 5035.

DTSC Comment #3: *The description of soil stock pile air emissions evaluation using a photo ionization detector (PID) is incomplete (page 6-3). The SMP should include at a minimum the soil stockpile PID action levels used to fulfill the requirements for Ventura County Air Pollution Control District.*

Response: Section 6.3, Soil Management, states “When soils are initially excavated and stockpiled, reactive organic compounds (ROC) emissions will be measured using a photo ionization detector (PID) to determine if mitigation measures are required according to Rule 74.29 of the Ventura County Air Pollution Control District (VCAPCD).” VCAPCD Rule 74.29, Section B.1, states “No person shall cause or allow the aeration of soil that contains

gasoline, diesel fuel, or jet fuel, if such aeration: a. Emits reactive organic compounds (ROC), as measured by a certified organic vapor analyzer, in excess of 50 parts per million by volume (ppmv) above background, as hexane, except nonrepeatable momentary readings.” Therefore, the PID action level to fulfill the requirements for VCAPCD will be 50 ppmv. Soil stockpile management procedures, including air monitoring protocols and the VCAPCD soil stockpile PID action level, will be included in the SMP, which will be submitted to the RWQCB for review and approval, and DTSC for comment, prior to implementation.

REFERENCES

DTSC, 2009. Letter from Mr. Buck King to the RWQCB presenting the GSU Review Memorandum of the Final ISRA Work Plan, SSFL, Ventura County, California, dated June 4.

MWH, 2009a. Final ISRA Work Plan, SSFL, Ventura County, California. May.

MWH, 2009b. SSFL Radiological Investigation Summary for Outfalls 008 and 009, SSFL, Ventura County, California. June 12.

RWQCB, 2008. California Water Code Section 13304 Order to Perform Interim/Source Removal Action of Soil in the Areas of Outfall 008 and 009 Drainage Areas, The Boeing Company, SSFL, Ventura County, California. December 3.

RWQCB, 2009a. Comments and Requirements Related to the Final ISRA Work Plan Submitted In Response to California Water Code Section 13304 Order, The Boeing Company, SSFL, Ventura County, California. June 5.

RWQCB, 2009b. DTSC Comments on the Final ISRA Work Plan Submitted In Response to California Water Code Section 13304 Order, The Boeing Company, SSFL, Ventura County, California. June 10.



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Cal/EPA Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

June 19, 2009

Thomas Gallacher
The Boeing Company
5800 Woolsey Canyon Road, MC 055-T487
Canoga Park, CA 91304-1148

REQUEST FOR MORE INFORMATION: PRE-CERTIFICATION NOTIFICATION FOR INTERIM SOURCE REMOVAL ACTION (ISRA) -OUTFALLS 008 AND 009 WATERSHEDS, VENTURA COUNTY, CALIFORNIA (File No. 09-127)

We received your pre-certification notification on May 28, 2009 for determination that the subject project is pre-certified via the State Water Resources Control Board General Water Quality Certification Order of US Army Corps of Engineers Nationwide Permits dated May 11, 2007 (General Order). Based on our review of the submitted information, we find your notification incomplete. Therefore, the project can not be determined to be pre-certified at this time.

In order for us to make an appropriate determination on your notification, please submit the following information:

- 1) Precisely defined ISRA areas. You included in your notification two types of ISRA areas: Refined ISRA areas and Preliminary ISRA Evaluation Areas. The Refined ISRA areas are sufficiently defined to determine inclusion under the General Order. The Preliminary ISRA Evaluation Areas will need to be more precisely defined to be considered for inclusion under the General Order.
- 2) Type of clean up action for each area. You included in your notification three types of clean up actions: excavation, capping and/or diversion. For each refined ISRA area, you must submit the specific type of clean up action which will be taken in that area.
- 3) An approximate schedule for the work.



Thomas Gallacher
The Boeing Company

- 2 -

June 19, 2009

It appears you intend for this work to take place over several years. We can determine pre-certification under the General Order for those areas scheduled to be cleaned up this year (refined ISRA areas where the type of clean up has been determined) and then determine pre-certification for the other areas when the more precise information has been developed.

Please submit the above information by June 29, 2009, reference to File No. 09-127.

Sincerely,



LB Nye

cc:

Mr. Antal Szijj, US Army Corps of Engineers



The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1146

Via Fedex

June 26, 2009

In reply refer to SHEA-108831



California Regional Water Quality Control Board
Los Angeles Region
320 West 4th Street, Suite 200
Los Angeles, California 90013

Attention: Dr. L. B. Nye

Subject: Clean Water Act Section 401 Pre-Certification Notification for Interim
Source Removal Action (ISRA) - Outfalls 008 and 009 Watersheds
Santa Susana Field Laboratory, Ventura County, California
Response to Request for More Information
File 09-127

Dear Ms. Nye:

The Boeing Company (Boeing) has received and reviewed your June 19, 2009 letter in response to our Clean Water Act Section 401 pre-certification notification for the above-mentioned project. We understand the California Regional Water Quality Control Board, Los Angeles Region (RWQCB) requires additional information prior to confirming this project is pre-certified. This letter directly responds to your questions, and provides the additional information requested. It is formatted similar to your letter with each of your questions/comments reproduced in their entirety. The Boeing Company (Boeing), on behalf of Boeing and the National Aeronautics and Space Administration (NASA), wishes to provide the following responses which are directly below each comment.

RWQCB Comment:

- 1) *Precisely defined ISRA areas. You included in your notification two types of ISRA areas: Refined ISRA areas and Preliminary ISRA Evaluation areas. The Refined ISRA areas are sufficiently defined to determine inclusion under the General Order. The Preliminary ISRA Evaluation areas will need to be more precisely defined to be considered for inclusion under the General Order.*

Boeing Response

The Preliminary ISRA Evaluation Areas (ISRA PEAs) that have not been refined are identified on Figures 1-6 and 1-7 of the Final ISRA Work Plan. The one exception is PEA-ELV-1 shown on Figure 1-7 of the Final ISRA Work Plan. This ISRA PEA has been refined to ELV-1A through ELV-1D (Figure 4-2 of the Final ISRA Work Plan), of which ELV-1C and ELV-1D are recommended for clean up (Figure 4-3 of the Final ISRA Work Plan).

Data gap sampling is currently being performed for the other ISRA PEAs on Figures 1-6 and 1-7 of the Final ISRA Work Plan, and is expected to be completed by December 2009. Results of the data gap sampling will be used to refine the ISRA PEAs using the ISRA area identification process described in the Final ISRA Work Plan (Section 2.1). A remedial alternatives evaluation will be performed on each Refined ISRA area as described in the Final ISRA Work Plan (Section 2.2). Remedial actions for these Refined ISRA Areas are planned for 2010 and 2011. An implementation schedule for all ISRA work to be performed to complete the ISRA effort was provided in the Final ISRA Work Plan (Section 7.1).

Prior to implementing the post-2009 remedial actions, Boeing will submit to the RWQCB an amendment to the pre-certification notification for review and approval. The amendment will include similar information for these Refined ISRA Areas as was provided in the pre-certification notification for the Refined ISRA Areas planned for clean up in 2009.

The one exception to following this process is PEA-A2LF-3 shown on Figure 1-7 of the Final ISRA Work Plan. The exceedance measured within PEA-A2LF-3 is located within a culvert. This culvert is scheduled for maintenance in 2009. Maintenance activities include removal of sediment from the culvert, and will include removal of the soil associated with the exceedance. Confirmation sampling will be performed following procedures in the Final ISRA Work Plan (Section 5.5). Data gap sampling is currently being performed to assess conditions outside of the culvert. If data gap sample results exceed action levels, the process described above will be followed.

RWQCB Comment:

- 2) *Type of clean up action for each area. You included in your notification three types of clean up actions: excavation, capping, and/or diversion. For each refined ISRA area, you must submit the specific type of clean up action which will be taken in that area.*





Boeing Response

Excavation has been selected for all 2009 ISRA clean up actions, including the Refined ISRA Areas, and the culvert associated with the exceedance within PEA-A2LF-3 as described in the Boeing Response to Comment #1. Excavation plans for Outfall 008 and 009 refined ISRA Areas are included in Appendix C and D of the Final ISRA Work Plan, respectively. An excavation plan is not included for PEA-A2LF-3, but will include removal of soil from the culvert where the exceedance is located.

The clean up actions for the ISRA PEAs shown on Figures 1-6 and 1-7 of the Final ISRA Work Plan, excluding PEA-ELV-1 and PEA-A2LF-3, have not yet been identified. The clean up actions will likely be excavation, capping, or diversion. As stated in Boeing response to Comment #1, once the ISRA PEAs have been refined and clean up actions identified, Boeing will submit to the RWQCB an amendment to the pre-certification notification for review and approval.

RWQCB Comment:

- 3) *An approximate schedule for the work. It appears you intend for this work to take place over several years. We can determine pre-certification under the General Order for those areas schedule to be cleaned up this year (refined ISRA areas where the type of clean up has been determined) and then determine pre-certification for the other areas when the more precise information has been developed.*

Boeing Response

An implementation schedule for all ISRA work to be performed to complete the ISRA effort was provided in the Final ISRA Work Plan (Section 7.1). Clean up at the Refined ISRA Areas and culvert maintenance within PEA-A2LF-3 is scheduled for Fall 2009. Data gap sampling is currently being performed for the other ISRA PEAs and is expected to be completed by December 2009. Results of the data gap sampling will be used to refine the ISRA PEAs and clean up actions will be identified. Remedial actions for these Refined ISRA Areas are planned for 2010 and 2011. As stated in the Boeing Response #1, Boeing will submit to the RWQCB an amendment to the pre-certification notification for review and approval prior to implementing the 2010 and 2011 work.

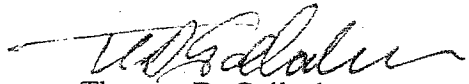
Dr. L. B. Nye, RWQCB (SHEA-108831)

June 26, 2009

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If you have any additional comments or questions, please do not hesitate to contact Lori Blair at 818-466-8741.

Very truly yours,



Thomas D. Gallacher

Director, Santa Susana Field Laboratory
Environment, Health and Safety

LNB:bjc

Distribution:

Mr. Peter Raftery, RWQCB

Ms. Cassandra Owens, RWQCB

Mr. Allen Elliott, NASA

Mr. Steve Slaten, NASA

Mr. Buck King, DTSC

✓ Ms. Dixie Hambrick, MWH

Via FedEx

June 26, 2009

In reply refer to SHEA-108830



U. S. Army Corps of Engineers
Ventura County Field Office-Regulatory Branch
2151 Alessandro Dr, Suite 110
Ventura, California 93001

Attention: Mr. Antal Szijj

Subject: U. S. Army Permit
Modified Notification Application and Supplemental Information
NWP 38 Pre-Construction Notification
Interim Source Removal Action-Outfalls 008 and 009 Watersheds
Santa Susana Field Laboratory, Ventura County, California

Dear Mr. Szijj:

Enclosed please find the modified Army Permit application form and supplemental information for a Nationwide Permit (NWP) 38 (to be used as the pre-construction notification) for the Interim Source Removal Action (ISRA) Project, located at The Boeing Company (Boeing), Santa Susana Field Laboratory (SSFL) in Ventura County, California. The work being performed as outlined in this application form is to satisfy requirements of the California Environmental Protection Agency's Los Angeles Regional Water Quality Control Board (RWQCB).

Boeing submitted to the US Army Corps of Engineers (ACOE) the original application form including supplemental information and several figures on May 22, 2009. Based on your preliminary review of the submittal, clarification was necessary prior to the ACOE approval of the submittal and issuance of the NWP 38. Subsequent to you discussing the project, the project areas, and ongoing work in the project areas with our consultant Glenn Jaffe of MWH, Boeing is submitting this modified application form and supplemental information. The figures originally submitted are to be used and, as you discussed with Mr. Jaffe, they are not being re-transmitted with this submittal. We look forward to your favorable review and issuance of the NWP 38 for this work.

Mr. A. Szijj, U. S. ACOE (SHEA-108830)

June 26, 2009

Page 2

If you have any questions regarding this submittal, please contact Lori Blair at (818) 466-8741 or Glenn Jaffe of MWH at (626) 568-6329 with any questions you have.

Sincerely,



A handwritten signature in black ink, appearing to read 'Thomas D. Gallacher'.

Thomas D. Gallacher
Director, Santa Susana Field Laboratory
Environment, Health and Safety

Attachments: U. S. Army Application
Modified Supplemental Information

cc: Dr. L. B. Nye, RWQCB
Ms. Cassandra Owens, RWQCB
Ms. Valerie Carrillo, RWQCB (without attachments)
Mr. Dana Cole, RWQCB (without attachments)
Mr. Glenn Jaffe, MWH

The public reporting burden for this collection of information is estimated to average 10 hours per response, although the majority of applications should require 5 hours or less. This includes the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Department of Defense, Washington Headquarters Service Directorate of Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302; and to the Office of Management and Budget, Paperwork Reduction Project (0710-0003), Washington, DC 20503. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. Please DO NOT RETURN your form to either of those addresses. Completed applications must be submitted to the District Engineer having jurisdiction over the location of the proposed activity.

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies. Submission of requested information is voluntary, however, if information is not provided, the permit application cannot be processed nor can a permit be issued.

One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned.

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

| | | | |
|--------------------|----------------------|------------------|-------------------------------|
| 1. APPLICATION NO. | 2. FIELD OFFICE CODE | 3. DATE RECEIVED | 4. DATE APPLICATION COMPLETED |
|--------------------|----------------------|------------------|-------------------------------|

(ITEMS BELOW TO BE FILLED BY APPLICANT)

| | |
|---|--|
| 5. APPLICANT'S NAME The Boeing Company/Mr. Thomas Gallacher | 8. AUTHORIZED AGENT'S NAME AND TITLE (an agent is not required) Glenn Jaffe/MWH Project Manager |
| 6. APPLICANT'S ADDRESS 5800 Woolsey Canyon Road, MC 055-T487 Canoga Park, California 91304-1148 | 9. AGENT'S ADDRESS 168 Michillinda Ave., Suite 200 Arcadia, California 91007 |
| 7. APPLICANT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business 818-466-8161 | 10. AGENT'S PHONE NUMBERS WITH AREA CODE a. Residence b. Business 626-568-6329 |

11. STATEMENT OF AUTHORIZATION

I hereby authorize Glenn Jaffe and/or MWH to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.



APPLICANT'S SIGNATURE

6/26/09

DATE

NAME, LOCATION AND DESCRIPTION OF PROJECT OR ACTIVITY

| | |
|---|---|
| 12. PROJECT NAME OR TITLE (see instructions) Interim Source Removal Action (ISRA)--Outfalls 008 and 009 Watersheds | 14. PROJECT STREET ADDRESS (if applicable) 5800 Woolsey Canyon Road, MC 055-T487 Canoga Park, California 91304-1148 |
| 13. NAME OF WATERBODY, IF KNOWN (if applicable) Unnamed ephemeral drainages | |
| 15. LOCATION OF PROJECT Ventura COUNTY California STATE | |

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

Unsectioned portion of Calabasas Quadrangle, T2N, R17W, Various locations, Santa Susana Field Laboratory Property (See attached figures)

17. DIRECTIONS TO THE SITE

From Highway 118, exit at Topanga Canyon Boulevard and proceed south to Roscoe Boulevard. Turn west (right) onto Roscoe and then turn north (right) onto Valley Circle Boulevard. At the 3-way stop, turn left onto Woolsey Canyon. Proceed to the top of the road and then turn left into the SSFL facility.

18. Nature of Activity (Description of project, include all features)

THIS IS A PRE-CONSTRUCTION NOTIFICATION. Perform Interim Source Removal Action of constituents of concern to attain surface water quality objectives. Activities will include soil, sediment, bedrock, and/or other material/debris removal from drainages and or land surfaces to minimize contact with surface water and to improve surface water quality (Notifying NWP 38). Install BMPs to minimize sediment transport into drainages and improve surface water quality. BMPs may consist of silt fencing, sand bags, straw wattles or bales, rock, gravel/grout check dams, rip rap, sand/gravel filter media, hydromulching, hydroseeding to improve vegetative cover and minimize erosion, etc. The attached supplemental information provides more details about the Project.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

All work is being performed in response to the RWQCB CAO requiring improvements to surface water quality in the Outfalls 008 and 009 drainages and watersheds.

USE BLOCKS 20-22 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

If fill material consisting of sediment, gravel, rock, and/or rip rap is discharged to Outfall 008 and/or 009 ephemeral drainages, it will be placed to restore the drainages(s) to its pre-ISRA condition and to minimize soil erosion and potential transport. Dredging will not be performed. See attached Supplemental Information.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards

The ISRA is more of a removal project than discharge project. See the attached Supplemental Information for additional details

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Wetlands are not present and will not be filled. See the attached Supplemental Information for details.

23. Is Any Portion of the Work Already Complete? Yes _____ No ☒ IF YES, DESCRIBE THE COMPLETED WORK

24. Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

Work will be completed on site which is owned by The Boeing Company. See attached sheets for more information regarding working on property used by Boeing but owned by the United States.

25. List of Other Certifications or Approvals/Denials Received from other Federal, State, or Local Agencies for Work Described in This Application

| AGENCY | TYPE APPROVAL* | IDENTIFICATION NUMBER | DATE APPLIED | DATE APPROVED | DATE DENIED |
|--------|-------------------|-----------------------|--------------|---------------|-------------|
| RWQCB | Pre-Certified 401 | Pending | Concurrently | Pending | |
| CDFG | SAA | 1600-2003-5052-R5 | August, 2003 | October, 2003 | |

*Would include but is not restricted to zoning, building and flood plain permits

26. Application is hereby made for a permit or permits to authorize the work described in this application. I certify that the information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.


SIGNATURE OF APPLICANT

6/20/09
DATE

SIGNATURE OF AGENT

DATE

The application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States, knowingly and willfully falsifies, conceals, or covers up any trick scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

Instructions for Preparing a
Department of the Army Permit Application

Blocks 1 through 4. To be completed by Corps of Engineers.

Block 5. Applicant's Name. Enter the name of the responsible party or parties. If the responsible party is an agency, company, corporation, or other organization, indicate the responsible officer and title. If more than one party is associated with the application, please attach a sheet with the necessary information marked Block 5.

Block 6. Address of Applicant. Please provide the full address of the party or parties responsible for the application. If more space is needed, attach an extra sheet of paper marked Block 6.

Block 7. Applicant Telephone Number(s). Please provide the number where you can usually be reached during normal business hours.

Blocks 8 through 11. To be completed, if you choose to have an agent.

Block 8. Authorized Agent's Name and Title. Indicate name of individual or agency, designated by you, to represent you in this process. An agent can be an attorney, builder, contractor, engineer, or any other person or organization. Note: An agent is not required.

Blocks 9 and 10. Agent's Address and Telephone Number. Please provide the complete mailing address of the agent, along with the telephone number where he / she can be reached during normal business hours.

Block 11. Statement of Authorization. To be completed by applicant, if an agent is to be employed.

Block 12. Proposed Project Name or Title. Please provide name identifying the proposed project, *e.g.*, Landmark Plaza, Burned Hills Subdivision, or Edsall Commercial Center.

Block 13. Name of Waterbody. Please provide the name of any stream, lake, marsh, or other waterway to be directly impacted by the activity. If it is a minor (no name) stream, identify the waterbody the minor stream enters.

Block 14. Proposed Project Street Address. If the proposed project is located at a site having a street address (not a box number), please enter it here.

Block 15. Location of Proposed Project. Enter the county and state where the proposed project is located. If more space is required, please attach a sheet with the necessary information marked Block 15.

Block 16. Other Location Descriptions. If available, provide the Section, Township, and Range of the site and / or the latitude and longitude. You may also provide description of the proposed project location, such as lot numbers, tract numbers, or you may choose to locate the proposed project site from a known point (such as the right descending bank of Smith Creek, one mile downstream from the Highway 14 bridge). If a large river or stream, include the river mile of the proposed project site if known.

Block 17. Directions to the Site. Provide directions to the site from a known location or landmark. Include highway and street numbers as well as names. Also provide distances from known locations and any other information that would assist in locating the site.

Block 18. Nature of Activity. Describe the overall activity or project. Give appropriate dimensions of structures such as wingwalls, dikes (identify the materials to be used in construction, as well as the methods by which the work is to be done), or excavations (length, width, and height). Indicate whether discharge of dredged or fill material is involved. Also, identify any structure to be constructed on a fill, piles, or float-supported platforms.

The written descriptions and illustrations are an important part of the application. Please describe, in detail, what you wish to do. If more space is needed, attach an extra sheet of paper marked Block 18.

Block 19. Proposed Project Purpose. Describe the purpose and need for the proposed project. What will it be used for and why? Also include a brief description of any related activities to be developed as the result of the proposed project. Give the approximate dates you plan to both begin and complete all work.

Block 20. Reasons for Discharge. If the activity involves the discharge of dredged and/or fill material into a wetland or other waterbody, including the temporary placement of material, explain the specific purpose of the placement of the material (such as erosion control).

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards. Describe the material to be discharged and amount of each material to be discharged within Corps jurisdiction. Please be sure this description will agree with your illustrations. Discharge material includes: rock, sand, clay, concrete, etc.

Block 22. Surface Areas of Wetlands or Other Waters Filled. Describe the area to be filled at each location. Specifically identify the surface areas, or part thereof, to be filled. Also include the means by which the discharge is to be done (backhoe, dragline, etc.). If dredged material is to be discharged on an upland site, identify the site and the steps to be taken (if necessary) to prevent runoff from the dredged material back into a waterbody. If more space is needed, attach an extra sheet of paper marked Block 22.

Block 23. Is Any Portion of the Work Already Complete? Provide any background on any part of the proposed project already completed. Describe the area already developed, structures completed, any dredged or fill material already discharged, the type of material, volume in cubic yards, acres filled, if a wetland or other waterbody (in acres or square feet). If the work was done under an existing Corps permit, identify the authorization, if possible.

Block 24. Names and Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Project Site. List complete names and full mailing addresses of the adjacent property owners (public and private) lessees, etc., whose property adjoins the waterbody or aquatic site where the work is being proposed so that they may be notified of the proposed activity (usually by public notice). If more space is needed, attach an extra sheet of paper marked Block 24.

Information regarding adjacent landowners is usually available through the office of the tax assessor in the county or counties where the project is to be developed.

Block 25. Information about Approvals or Denials by Other Agencies. You may need the approval of other federal, state, or local agencies for your project. Identify any applications you have submitted and the status, if any (approved or denied) of each application. You need not have obtained all other permits before applying for a Corps permit.

Block 26. Signature of Applicant or Agent. The application must be signed by the owner or other authorized party (agent). This signature shall be an affirmation that the party applying for the permit possesses the requisite property rights to undertake the activity applied for (including compliance with special conditions, mitigation, etc.).

DRAWINGS AND ILLUSTRATIONS

General Information.

Three types of illustrations are needed to properly depict the work to be undertaken. These illustrations or drawings are identified as a Vicinity Map, a Plan View or a Typical Cross-Section Map. Identify each illustration with a figure or attachment number.

Please submit one original, or good quality copy, of all drawings on 8½ x 11 inch plain white paper (tracing paper or film may be substituted). Use the fewest number of sheets necessary for your drawings or illustrations.

Each illustration should identify the project, the applicant, and the type of illustration (vicinity map, plan view, or cross-section). While illustrations need not be professional (many small, private project illustrations are prepared by hand), they should be clear, accurate, and contain all necessary information.

Modified Supplemental Information
Application for Department of the Army Permit (Notifying NWP 38)
Interim Source Removal Action (ISRA)--Outfalls 008 and 009 Watersheds

As part of the Application for Department of the Army Permit (Permit) for the above project, this information is being provided as a supplement to the Permit. The information is formatted to refer to the specific "Blocks" of the Permit. The application is for a project that involves a Nationwide Permit 38 (Cleanup of Hazardous and Toxic Waste). Cleanup activities will consist of the removal of impacted soils, sediment, and/or bedrock. Future activities may be necessary subsequent to cleanup and include the installation of gravel check dams and rip rap to control sediment transport and stabilize the drainage during surface water flow events. These activities are described herein.

Block 16. Other Location Descriptions

The attached figures show the SSFL location, the SSLF facility, and the proposed locations of the Project.

Block 18. Nature of Activity

Project Description for ISRA

Northern Drainage and Happy Valley Watersheds (Outfalls 008 and 009)
Boeing Santa Susana Field Laboratory

The Interim Source Removal Action (ISRA) is the approach used to control the release of constituents of concern (COCs) to surface water within the Outfall 008 and Outfall 009 watersheds at the SSFL. The work will be performed by The Boeing Company (Boeing) and the National Aeronautics and Space Administration (NASA) pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by the Los Angeles Regional Water Quality Control Board (RWQCB) dated December 3, 2008. The CAO was issued by the RWQCB to enforce compliance with the Waste Discharge Requirements (WDR) for Outfalls 008 and 009 contained in Order No. R4-2004-0111, as amended by Order Nos. R4-2006-0008, R4-2006-0036, and R4-2007-0055.

The objective of the ISRA RWQCB CAO is to improve surface water quality within the Outfalls 008 and 009 watersheds by identifying, evaluating, and remediating areas of contaminated soil in order to eliminate the COCs that have resulted in exceedances of NPDES permit limits and benchmarks. Excavation has been selected for all 2009 ISRA clean up actions.

The clean up actions for the ISRA PEAs excluding PEA-ELV-1 and PEA-A2LF-3 (as shown on the attached figures), have not yet been identified. The clean up actions will likely be excavation, capping, or diversion. Once the ISRA PEAs have been refined and clean up actions identified, Boeing will submit to the ACOE an amendment for review and approval.

Excavation will be performed in both the Outfall 008 and the Outfall 009 ISRA Areas. The Preliminary ISRA Evaluation Areas (ISRA PEAs) identified on the attached figures are still being refined. Data gap sampling is currently being performed and is expected to be completed by December 2009. Results of the data gap sampling will be used to

refine the ISRA PEAs using the ISRA area identification process. A remedial alternatives evaluation will be performed on each Refined ISRA area with remedial actions for these Refined ISRA Areas planned for 2010 and 2011. Prior to implementing the post-2009 remedial actions, Boeing will submit to the ACOE an amendment to this pre-construction notification for review and approval. The amendment will include similar information for these Refined ISRA Areas as was provided in the pre-construction notification for the Refined ISRA Areas planned for clean up in 2009.

The one exception to following this process is PEA-A2LF-3. The exceedance measured within PEA-A2LF-3 is located within a culvert. This culvert is scheduled for maintenance in 2009. Maintenance activities include removal of sediment from the culvert, and will include removal of the soil associated with the exceedance. Confirmation sampling will be performed. Data gap sampling is currently being performed to assess conditions outside of the culvert. If data gap sample results exceed action levels, the process described above will be followed.

ISRA excavation activities may include the use of the following adjacent to and within the Outfall 008 and 009 ephemeral drainages:

| | |
|------------------|----------------|
| Vacuum trucks | Shovels |
| Bobcats | Backhoes |
| Excavators | Manual removal |
| Personal trucks | Roll-off bins |
| Transport trucks | Dump Trucks |

As illustrated on the attached figures, excavation activities will take place in select areas of the SSFL based on soil and sediment sampling and analytical testing. The figures indicate sample locations and the proposed source removal areas. Most areas are not in jurisdictional drainages, but are located in upland or other areas. As discussed above, the Project will consist of primarily using a vacuum truck(s) to recover impacted soil and sediment. When recovering impacted soil and/or sediment from a drainage, vacuum trucks will be staged outside the drainage with vacuum hoses being used to access drainage areas. The vacuum hoses will be manually manipulated in the drainage by a crew of workers. If required due to topography or encountering bedrock, an excavator or backhoe might be needed to access and remove soil, sediment, and/or bedrock from impacted areas. If used, the operators will be careful to minimize soil, sediment, and/or bedrock sloughing into the drainage. The removed materials will be placed in trucks and appropriately managed.

If necessary to minimize the potential for surface water to pond and accumulate after the ISRA is completed, surface grading and or clean material will be placed. Since most of the ISRA Project is being performed outside jurisdictional drainages, it is not anticipated significant quantities of fill material will be placed in the drainages. Based on the Project scope, up to 500 cubic yards of clean backfill may be placed in jurisdictional drainages. In addition (as described below), rock/gravel check dams and/or rip rap may be placed to minimize erosion and stabilize the Project areas. Potentially 500 to 1,000 cubic yards of these materials may be placed in jurisdictional drainages.

In accordance with CDFG conditions as stipulated in the SAA and its amendments, biological surveys will be performed to minimize potential impacts to flora and fauna in

Project work areas. Initial biological surveys have been performed and sensitive species have not been identified. Just prior to starting field work, Project areas will be re-visited and surveyed by a biologist to verify pre-field activities' survey results, potentially relocate sensitive wildlife, and to evaluate current conditions. Upon field activities commencing in Project areas, a biologist will visit the areas as work is being performed to verify SAA conditions are being met, and to provide guidance to the field crews, if necessary.

Block 21. Types of Material Being Discharged and the Amount of Each Type in Cubic Yards

Soil, sediment, gravel, rock, rip rap, filter media, vegetation, and other similar materials may be placed in and adjacent to the subject jurisdictional ephemeral drainages. The type and quantity of each material is not currently known because their quantities will be based on the quantity and location of excavated material. However, as discussed above, small volumes of materials will likely be placed in jurisdictional drainages. It is anticipated less than 5,000 cubic yards of materials may be placed adjacent to and/or in upland areas of the drainages. These materials may be used to restore the areas to pre-existing conditions; minimize the potential for surface soil/sediment erosion and transport into or within the drainages; and/or to improve surface water quality by limiting the volume of suspended or settleable solids in the drainages.

In addition to removing impacted media and restoring Project areas, a series of check dams and rip rap will be installed across a portion of the Northern Drainage channel to contain clay target and lead shot debris (under Department of Toxic Substances Control [DTSC] and RWQCB oversight, soils and sediment containing clay target and lead shot debris were recently removed from this area). The check dams and rip rap will also promote drainage bed and bank stabilization and sediment settling in specific locations during channel flow events. The deposited sediment will be inspected for the presence of clay target and lead shot debris and removed, if found to contain such debris.

It is anticipated the check dams will be constructed of gabion structures (rocks and grout in a wire mesh binder) and/or loose on-site or imported rocks and boulders. The check dams may be founded in the near surface bedrock with a concrete base that will be poured and cured before channel flow events. If channel topography permits, the concrete base may be deleted.

The check dams will span across the channel and be approximately 6 feet high from toe to crest. The check dams will be installed such that ideally the toe of the upstream dam will be at the same elevation as the crest of the next downstream dam, and so on. After rainfall and channel flow events, the areas behind the check dams will be inspected for accumulation of sediment and the presence of clay target and lead shot debris. If sediment is present at approximately one half the height of the dam or more, the sediment may be removed using a vacuum truck and/or excavation equipment as necessary. Routine maintenance of the check dams and sediment deposition areas will continue until the check dams are deemed to no longer be required and removed. Prior to placing check dams or other similar structures in a jurisdictional drainage, Boeing will submit additional design and engineering details to the ACOE for review and approval.

Rip rap will be used to aid in stabilizing the drainage bed and banks to minimize erosion and sediment transport. Rip rap will be placed along drainage banks as well as in the drainage to reduce flow velocity and minimize scouring and erosion.

Block 22. Surface Area in Acres of Wetlands or Other Waters Filled

Dredging is not anticipated. Work in wetlands is not anticipated. Fill material(s), as described on the attached sheets, may be placed in ephemeral drainages and adjacent to drainages. The fill will be placed with equipment such as backhoes, loaders, excavators, Bobcats, or other similar equipment, and/or with smaller equipment or manually. The designated Project areas as delineated on the attached figures are approximately 46 acres. Within these designated Project areas, actual work areas where impacted soil and/or sediment were identified will be excavated. The actual work areas where excavation will take place are only approximately 5 total acres, including approximately 250 linear feet of drainage that is ACOE jurisdictional. The ACOE jurisdictional areas (Waters of the US) that may receive fill material are approximately 0.1 to 0.2 acres.










Based on the described Project, temporary impacts to jurisdictional drainages are insignificant, and it is anticipated the Project areas that are actually in jurisdictional drainages will essentially be restored to their pre-construction condition, with the exception that rip rap or other sediment and erosion control features may be present.

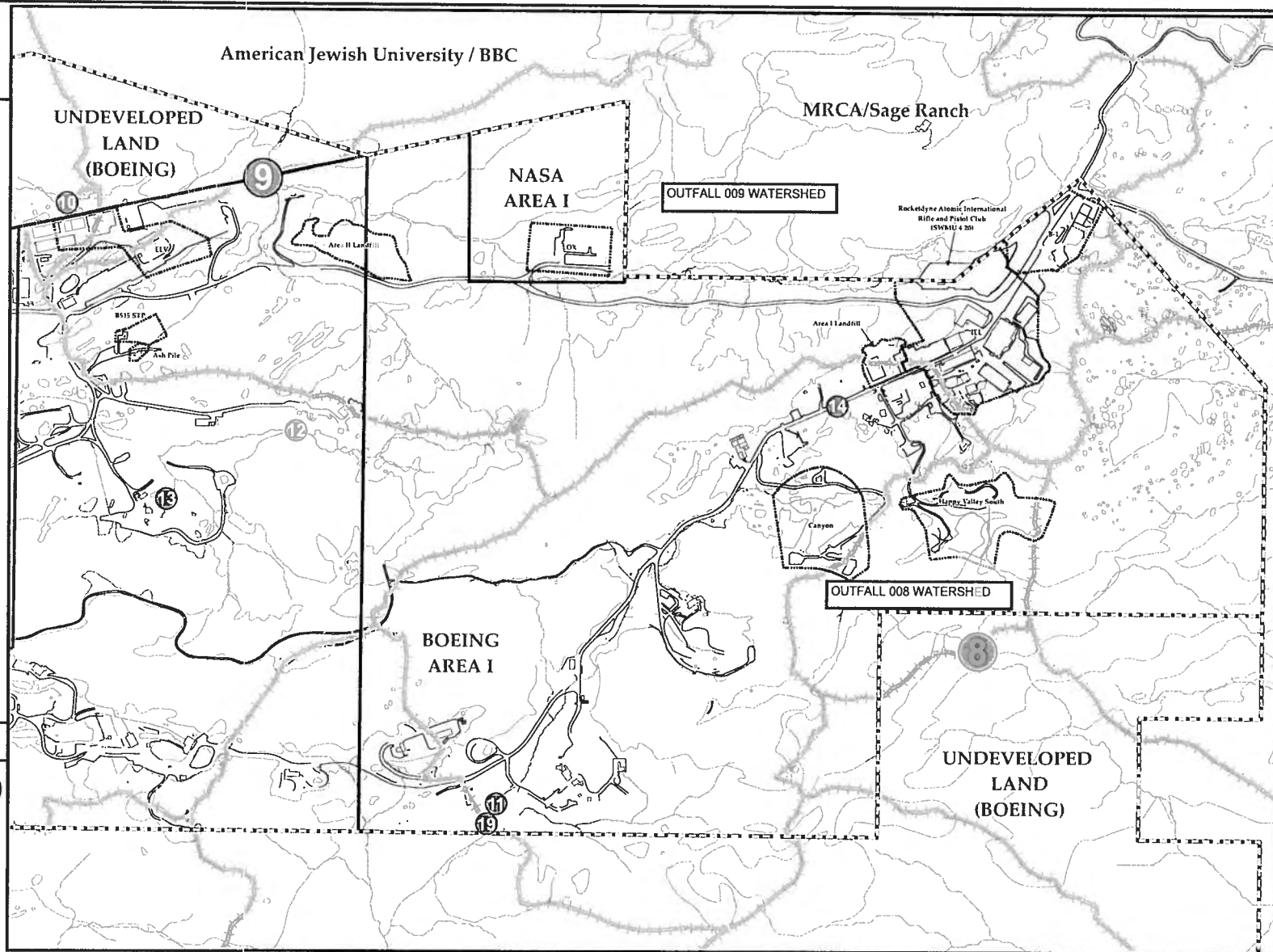
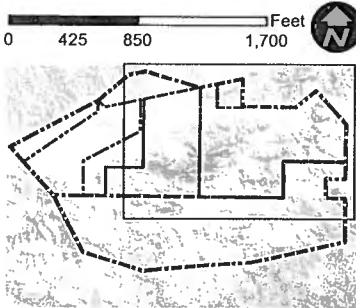
Block 24. Addresses of Adjoining Property Owners, Lessees, etc., Whose Property Adjoins the Waterbody

The SSFL is jointly owned by Boeing and the federal government. NASA administers the portion of the property owned by the federal government. The site is divided into four administrative areas (Areas I, II, III, and IV) and undeveloped land areas to both the north and south (Figure 1-1). Boeing owns Areas III and IV, and most of Area I. The federal government property administered by NASA includes a 42-acre portion of Area I and all of Area II. Ninety acres of Area IV were leased to the United States Department of Energy (DOE). The northern and southern undeveloped lands of the SSFL were not used for industrial activities and are owned by Boeing.

Outfalls 008 and 009 Location Map

Base Map Legend

-  Administrative Area Boundary
-  Historical Operations Areas (RPI Sites) Within Outfall 008 and 009
-  Surface Water Drainage
-  Surface Water Divide
-  NPDES Outfall
-  Existing Building or Structure
-  Paved Road
-  Elevation Contour
-  Bedrock Outcrop



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 **MWH** FIGURE 1-4

Outfall 008 Refined ISRA PEAs and ISRA Areas

Base Map Legend

- Administrative Area Boundary
- IPI Site Boundary
- Existing Building or Structure
- Previously Excavated Area
- Preliminary ISRA Evaluation Area
- Surface Water Drainage
- Surface Water Divide
- Outfall Water Divide
- NIPDS Outfall
- Dirt Road
- Paved Road
- Elevation Contour
- Bedrock Outcrop
- Data Gap Location: Samples Not Analyzed
- Proposed Sample Location: Sample Results Pending

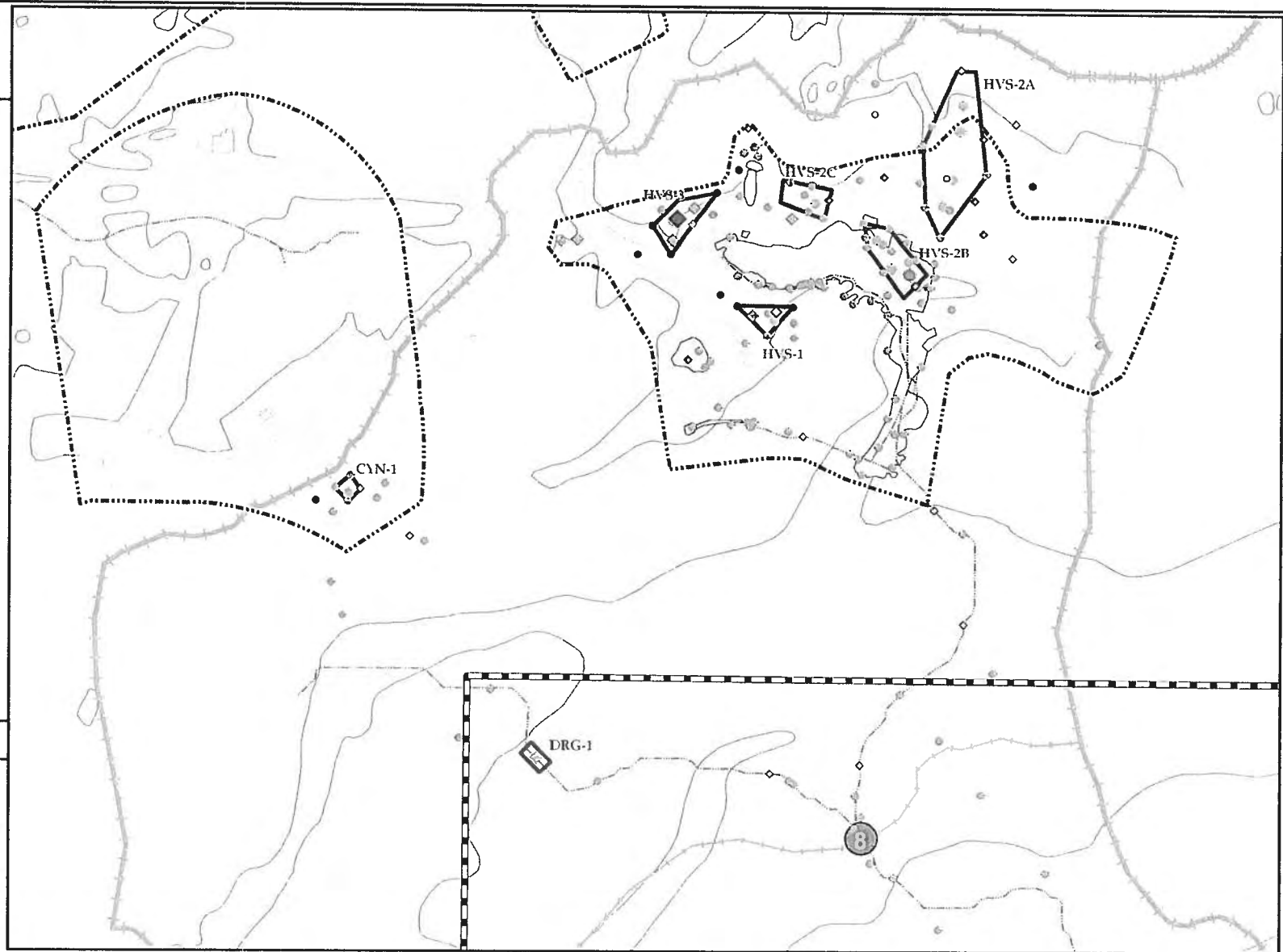
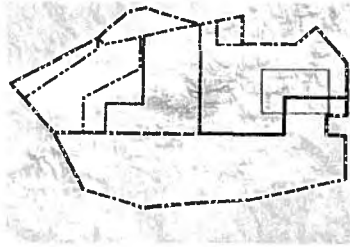
ISRA Constituents of Concern

- Copper, Lead, Dioxins
- 2,3,5 Trifluorobenzene Concentrations
- Copper: 25 mg/kg
- Lead: 34 mg/kg
- Dioxins: TC (DIO) 0.05 pg/g
- Copper and/or Lead Sample Location: 2 feet bgs
- Background (BG)
- BG and 2x BG
- 2x BG and 10x BG
- 10x BG and 100x BG

Dioxin Sample Location: 2 feet bgs

- Background (BG)
- BG and 2x BG
- 2x BG and 10x BG
- 10x BG and 100x BG
- 100x BG

Note: Dioxin represents the sum of 17 dioxin furan congeners results adjusted for toxicity, normalized to 2,3,7,8-TCDF (TCDF)

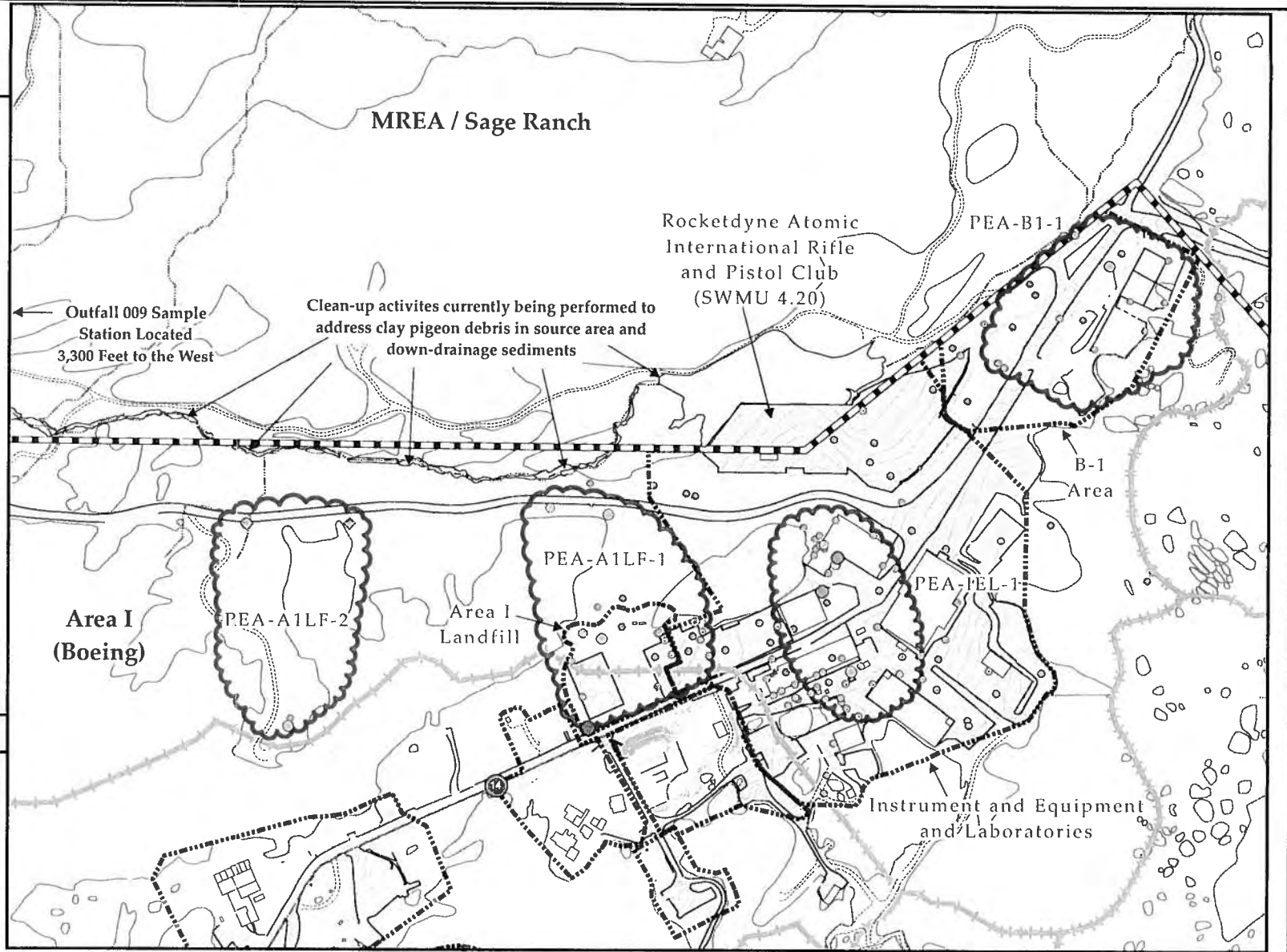
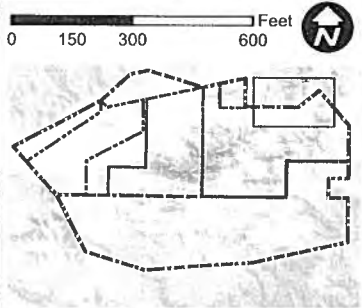


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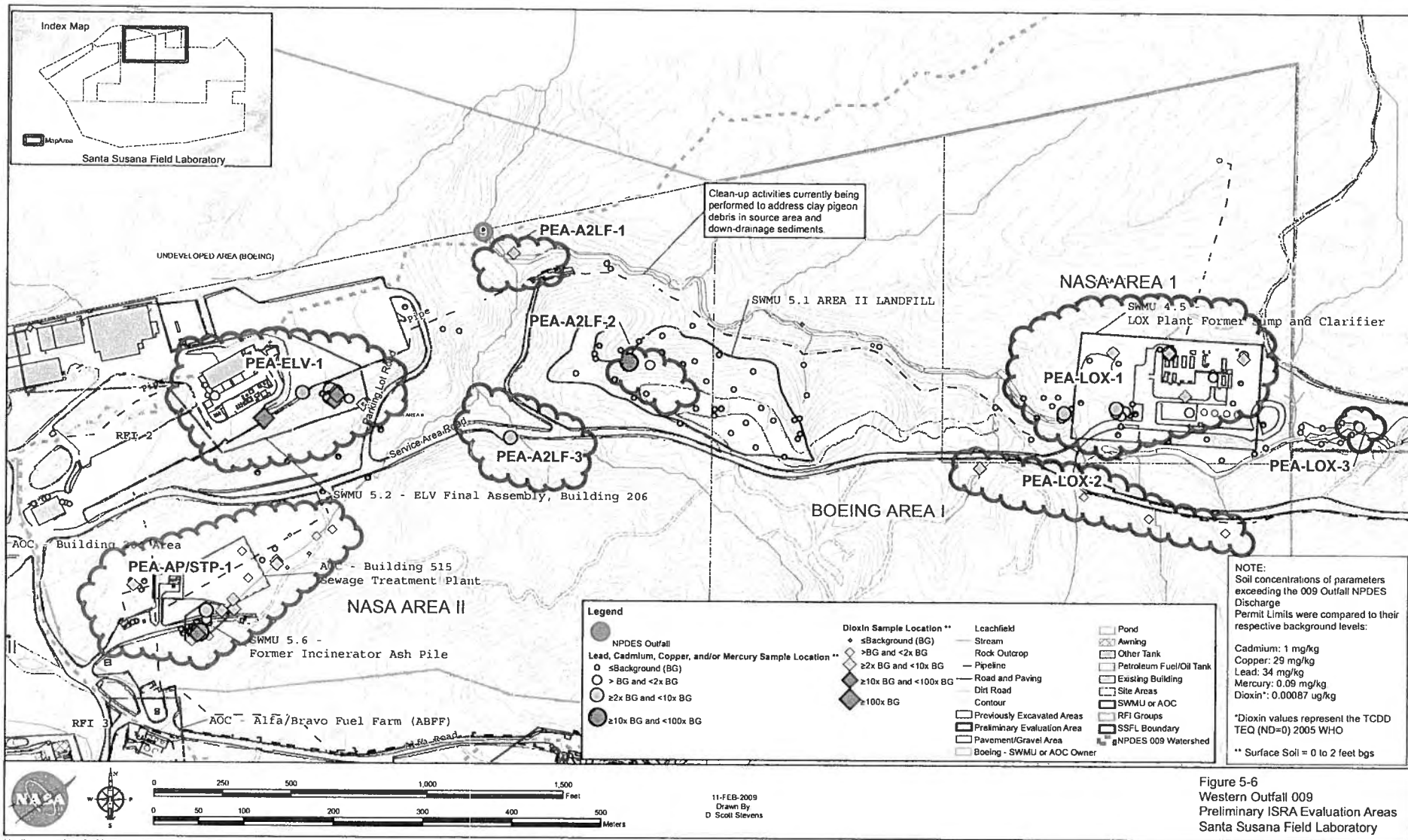
Eastern Outfall 009 Preliminary ISRA Evaluation Areas

- Base Map Legend**
- Administrative Area Boundary
 - RFI Site Boundary
 - Existing Building or Structure
 - Previously Excavated Area
 - Preliminary ISRA Evaluation Area
 - Surface Water Drainage
 - Surface Water Divide
 - NPPDS Outfall
 - Dirt Road
 - Paved Road
 - Elevation Contour
 - Bedrock Outcrop

- Constituents of Concern**
Cadmium, Copper, Lead, Mercury, Dioxin
- Background Comparison Concentration**
- | | |
|------------------------|--------------------------------------|
| Cadmium: 1 mg/kg; | Dioxin Sample Location (<2 feet bgs) |
| Copper: 29 mg/kg; | ◊ < Background (BG) |
| Lead: 34 mg/kg; | ◊ >BG and <2x BG |
| Dioxin: 0.00007 µg/kg; | ◊ >2x BG and <10x BG |
| Mercury: 0.09 mg/kg; | ◊ >10x BG and <100x BG |
- Cadmium, Copper, Lead, and/or Mercury Sample Location (<2 feet bgs)**
- | |
|------------------------|
| ◊ < Background (BG) |
| ◊ >BG and <2x BG |
| ◊ >2x BG and <10x BG |
| ◊ >10x BG and <100x BG |
| ◊ >100x |



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California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

July 7, 2009

Mr. Thomas D. Gallacher
Director, SSFL – Environment, Health & Safety
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

FINAL APPROVAL OF AND COMMENTS ON ADDENDUM TO THE FINAL INTERIM SOURCE REMOVAL ACTION WORK PLAN SUBMITTED IN RESPONSE TO CALIFORNIA WATER CODE SECTION 13304 ORDER – THE BOEING COMPANY, SANTA SUSANA FIELD LABORATORY, CANOGA PARK, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)

Dear Mr. Gallacher:

Los Angeles Regional Water Quality Control Board (Regional Board) staff has reviewed the June 19, 2009 document with the subject *Addendum to the Final Interim Source Removal Action (ISRA) Work Plan Submitted in Response to California Water Code Section 13304 Order* (Addendum). The Addendum, received by the Regional Board on June 22, 2009, was submitted in response to a Regional Board letter dated June 5, 2009 with the subject *Comments and Requirements Related to the Final Interim Source Removal Action Work Plan Submitted in Response to California Water Code Section 13304 Order – The Boeing Company, Santa Susana Field Laboratory, Canoga Park, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111, SITE ID NO. 2040109)* (Letter).

Regional Board staff conditionally approved the approach and commented on the February 2009 *Preliminary Interim Source Removal Action (ISRA) Workplan Santa Susana Field Laboratory, Ventura County, California* in a letter dated April 20, 2009. The Final Work Plan provides additional details for source removal in outfalls 008 and 009, and addresses the comments in the April 20, 2009 Regional Board letter.

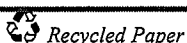
The Regional Board's June 5, 2009 letter required that Boeing respond to six comments no later than June 19, 2009. The six comments, a summary of Boeing's response, and the Board's response to Boeing's response are as follows:

- 1) The statement that NASA has funding constraints appears in several places in the document. Please clarify the significance of these constraints. Do they have the potential to significantly influence the project schedule?

Summary of Boeing's Response: No delays are expected.

Board staff comment: Boeing's response satisfactory.

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- 2) Based on Figure 3-1, the area with the highest copper and lead concentrations in soil in the outfall 008 area appears to have been excavated during the perchlorate cleanup. Please explain the need to re-excavate.

Summary of Boeing's Response: Prior excavation focused on perchlorate, the elevated metals remained in the sidewalls of that excavation

Board staff comment: Boeing response satisfactory.

- 3) It is indicated in Appendix B that rainfall runoff carries approximately 1000 tons of soil through outfall 008 each year. Based on field evidence, verify the reasonableness of this estimate.

Summary of Boeing's Response: The 1000 tons represents the calculation of soil that is potentially eroded within the watershed. A significant amount of this material is redeposited within the watershed and does not leave through Outfall 008. The soil discharged through Outfall 008, based on measured Total Suspended Solids, is 5.2 tons per year. However, this lower value does not include bedload transport through Outfall 008, which will increase the total mass transported through Outfall 008.

Board staff comment: Boeing response satisfactory.

- 4) Section 5-5, "Confirmation Soil Sampling" indicates that samples will be collected at "varying depths." Staff understands that samples will be collected at a range of depths below the surface of the excavation. Please clarify the proposed sampling depths in the Final Work Plan.

Summary of Boeing's Response: Depths refers to depths below the surface, rather than depths into the sidewall. Boeing will refer to this as elevations within the sidewall in future documents.

Board staff comment: Boeing response satisfactory.

- 5) The sequence of source cleanups in the watersheds for outfalls 008 and 009, are not clear in the Final Work Plan. The schedule of the NASA work in the eastern 009 area is not well integrated into the overall schedule discussion. The Final Work Plan shall include a combined schedule with both NASA and non-NASA work and also include a chart that indicates the organizational responsibilities for each area cleanup task.

Summary of Boeing's Response: For 2009, source removal is planned at seven locations in the Outfall 008 watershed on Boeing property and two locations in the Outfall 009 watershed on NASA property. Data gap sampling is currently being performed at other preliminary evaluation areas (PEAs) in the Outfall 009 watershed on Boeing and NASA property; this is expected to be finished during 2010. Remedial alternative evaluations for the other PEAs will be performed using this new data. Remedial actions will be planned for 2010 and 2011. A responsibility matrix with details of ISRA activities is included.

Board staff comment: Boeing response satisfactory.



- 6) The Final Work Plan does not adequately describe radiological monitoring during cleanup. Monitoring for radiological contamination is an important activity being conducted during soil excavation. The details of radiological screening must be clearly presented in the Final Work Plan.

Summary of Boeing's Response: Radiological screening is proposed to be conducted on excavated soils planned for offsite disposal, and that the procedure will be similar to those established for ongoing activities in the Northern Drainage. Radiological screening protocols will be included in the Soil Management Plan, which will be submitted to the Regional Board prior to implementation. However, based on the results of historical sampling and analysis of soil, surface water, and groundwater in these watersheds, other radiological monitoring is not planned. If subsurface debris is encountered during ISRA implementation, additional radiological screening measures will be performed. These screening measures will be consistent with the Department of Toxic Substances Control approved procedures for cleanup of the Northern Drainage, and as required in the Area I and II Landfills investigation work plan.

Board staff comment: Boeing response satisfactory. However, Regional Board staff looks forward to receipt of the Soil Management Plan with a complete description of the radiological monitoring plan.

Based upon the aforesaid, the Final Interim Source Removal Action Work Plan is hereby approved, subject to the following:

Health & Safety Plan: All work shall be performed in accordance with a Health and Safety Plan, as specified in section 6.1 of the ISRA Work Plan.

Erosion Control Plan: All work shall be performed in accordance with a site-specific Storm Water Pollution Prevention Plan (SWPPP), as specified in section 6.2 of the ISRA Work Plan, which shall include appropriate best management practices (BMPs) for erosion control.

Soil Management Plan: All work shall be performed in accordance with a Soil Management Plan that will provide procedures for characterization, handling, storage, disposal and documentation of soil generated during construction activities, as specified in section 6.3 of the ISRA Work Plan.

Transportation Plan: All work shall be performed in accordance with a Transportation Plan which defines procedures for transporting personnel, equipment and materials to facilitate safe and efficient traffic flow within the facility and on public roadways, as specified in section 6.4 of the ISRA Work Plan.

Biological and Archeological Surveys: Biological and archeological surveys shall be performed prior to and/or during the implementation of remedial actions, as specified in section 6.5 of the ISRA Work Plan. Environmentally sensitive areas (ESAs) shall be identified before the performance of any work, and a qualified biological or archeological monitor shall be on site during the performance of any work that could disturb any ESAs.

Mr. Thomas D. Gallacher
The Boeing Company

- 4 -

July 7, 2009

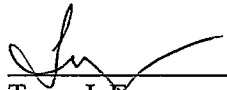
Streambed Alteration Agreement: All work shall adhere to the requirements of Streambed Alteration Agreement No. 1600-2003-5052-R5 (September 11, 2007), as amended, with the California Department of Fish and Game, as specified in section 6.5 of the ISRA Work Plan.

Clean Water Act (CWA) Section 404 permit and Section 401 certification: All work shall adhere to the requirements CWA Nationwide Permit 38 from the U.S. Army Corps of Engineers and CWA Section 401 water quality certification from the Regional Board, as specified in section 6.5 of the ISRA Work Plan.

In addition, the discharger shall coordinate the timing, design, construction, and implementation of any BMPs or ENTS with Board staff as part of Project implementation. Board staff shall address any BMPs or ENTS, whether proposed by the discharger or required by the Board, comprehensively as part of the ISRA.

Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.

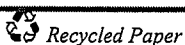
Sincerely,


Tracy J. Egoscue
Executive Officer

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District
Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District
Mr. Jarrod Degonia, c/o Assemblymember Cameron Smyth
Ms. Rondi Guthrie, c/o Assemblywoman Audra Strickland
Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
Ms. Linda Parks, Ventura County Board of Supervisors
Ms. Louise Rishoff, c/o Assembly member Julia Brownley
Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
Mr. David Beckman, National Resources Defense Council
Ms. Lori Blair, Boeing
Mr. William Bowling
Mr. Michael Bubman, c/o Bell Creek Homeowners Association
Ms. Jeannie Chari

cc list continues on next page

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cc list continued

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Mr. David Cooper, Environmental Protection Agency, Region 9
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Ms. Ginn Doose
Mr. Allen Elliott, National Aeronautics and Space Administration
Mr. John Farrow, M. R. Wolfe & Associates, P.C.
Ms. Merrilee Fellows, National Aeronautics and Space Administration
Mr. Tom Ford, Santa Monica Bay Keeper
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Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
Mr. Philip Isorena, State Water Resources Control Board, Division of Water Quality
Ms. Kirsten James, MESM, Staff Scientist, Heal the Bay
Ms. Stephanie Jennings, United States Department of Energy
Ms. Barbara Johnson, Susana Knolls Homeowners, Inc.
Dr. Michael Josselyn, WRA, Inc.
Mr. Thomas Johnson, ETEC Project Manager, United States Department of Energy
Ms. Teresa Jordan
Mr. Thomas Kelly, Environmental Protection Agency, Region 9, (WTR-5)
Dr. Jae Kim, Tetra Tech
Mr. Buck King Department of Toxic Substances Control, Sacramento
Ms. Bonnie Klea
Mr. Wayne Lee
Mr. Michael Levy, State Water Resources Control Board, Office of Chief Counsel
Mr. Michael Lopez, U.S. Department of Energy, Oakland
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Ms. Carissa Marsh, The Simi Valley Acorn
Ms. Marie Mason
Mr. Daniel Maccabee, Brandeis-Bardin Institute
Mr. Nicole Moutoux, Environmental Protection Agency, Region 9
Mr. Jerry Murphy, c/o Bell Creek Homeowners Association
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Mr. William Paznokas, Department Of Fish and Game, Region 5
Mr. Sheldon Plotkin, Southern California Federation of Scientists'
Ms. Bunny Raskin
Mr. Norm Riley, Department of Toxic, Substances Control, Sacramento

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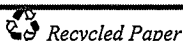
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Ms. Darlene Ruiz, Hunter Ruiz Research, Consulting and Advocacy
Mr. Adam Salkin
Mr. Mathew Sanders, Paul, Hastings, Janofsky & Walker LLP
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Mr. Jack M. Wallace
Ms. Christina Walsh
Ms. Marge Weems
Ms. Darla Weiss, Ventura County Watershed Protection District
Ms. Mary Wiesbrock
Dr. Daniel Wiseman, West Hills Neighborhood Council-Santa Monica Mountains Area
Committee
Mr. Anthony Zepeda
Mr. Cybil Zeppieri
Mr. Lori Zinkan
Ms. Elizabeth Zlotnik
California Coastal Commission, South Coast District
California State University, Northridge
City Manager, City of Simi Valley
City of Los Angeles, Bureau of Engineering, Wastewater Systems Engineering Division
Department of Health Services, Public Water Supply Branch
Department of Interior, U.S. Fish and Wildlife Service
Environmental Protection Agency, Region 9, Office of Radiation Programs
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Friends of the Los Angeles River
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles County, Department of Health Services
Los Angeles County, Department of Public Works, Environmental Programs Division
Masry & Vititoe Law Offices
NOAA, National Marine Fisheries Service
Simi Valley Library
The Boeing Company Santa Susana Field Laboratory

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Mr. Thomas D. Gallacher
The Boeing Company

- 7 -

July 7, 2009

cc list continued

U.S. Army Corps of Engineers
ULARA Watermaster
Ventura County Air Pollution Control District
Ventura County Environmental Health Division
Ventura County Public Works
Water Replenishment District of Southern California

California Environmental Protection Agency



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-----Original Message-----

From: Cassandra Owens [mailto:Cowens@waterboards.ca.gov]
Sent: Tuesday, July 14, 2009 8:33 AM
To: Blair, Lori N
Cc: Peter Raftery
Subject: Santa Susana Field Laboratory ISRA Related Issues

Hi Lori,

I briefly looked at some of the plans that have been sent over. I have a couple of questions:

Health and Safety Plan

1. Table 1, Occupational Health Exposure and Toxicological Properties for Contaminants of Occupational Health Concern, does not include TCDD.
2. One concern raised previously is that the site description is incomplete. The discussion does not include historical activities in the area, or previous clean-ups, or interim measures completed in the area.

Transportation Plan

1. Again, the site history is not comprehensive. That information will provide the basis for formulating how the waste material is prepared for moving, dust control measure, covering if required, and decontamination protocols required.

SSFL Radiological Investigation

1. Since there is no data in Outfall 008, is a survey required? If not, why not?
2. What is the 95th percentile of the measured background concentrations referred to on page 2 of 5 under the Brandeis/Bardin Institute/Santa Monica Mountains Conservancy Project (1992-1994).

What is the measure background for tritium in soil? What is the background concentration published for this region?

Attachment 1 ISRA Waste Sampling for Radionuclides

1. Paragraph 2, statement 1, Why is potential analyses specified for waste disposal characterization. I thought that discussions indicated that samples of the the waste material would be analyzed.

2. Third paragraph, statement 3,. indicates that DPH and DTSC would be notified if wastes are determined to contain radionuclides above background. Is the background the numbers that were developed during the previous investigations. How doe these numbers relate to the regional numbers?

Just a few general thoughts on what I looked at.

Thanks
Cassandra

Cassandra D. Owens
Unit Chief, Industrial Permitting Unit (NPDES) Los Angeles Regional Water Quality Control
Board 320 West 4th Street, Suite 200 Los Angeles, CA 90013 Phone (213) 576-6750
cowens@waterboards.ca.gov



State Water Resources Control Board



Linda S. Adams

Secretary for
Environmental
Protection

Division of Water Quality

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Email Address: stormwater@waterboards.ca.gov

Arnold Schwarzenegger
Governor

Approved Date: 07/21/2009

Paul Costa
Boeing Co
5800 Woosley Canyon Rd MC T 487
Canoga Park, CA 91304

RECEIPT OF YOUR NOTICE OF INTENT (NOI)

The State Water Resources Control Board (State Water Board) has received and processed your NOI to comply with the terms of the General Permit for Storm Water Discharges Associated with Construction Activity. Accordingly, you are required to comply with the permit requirements.

The Waste Discharger Identification (WDID) number is: **4 19C355816** .
Please use this number in any future communications regarding this permit.

SITE DESCRIPTION

OWNER: Boeing Co

DEVELOPER: Boeing Co

SITE INFORMATION: Interim Source Removal Action ISRA Project

SITE LOCATION: 5800 Woosley Canyon Rd Canoga Park, CA 91304

COUNTY: Los Angeles

TOTAL DISTURBED ACRES: 1.8

START DATE: 07/27/2009

COMPLETION DATE: 10/21/2009

When construction is complete or ownership is transferred, **dischargers are required to submit a Notice of Termination (NOT)** to the local Regional Water Board. All State and local requirements must be met in accordance with Special Provision No. 7 of the General Permit. If you do not submit a NOT when construction activity is completed you will continue and are responsible to pay the annual fee invoiced each July.

If you have any questions regarding permit requirements, please contact your Regional Water Board at **(213) 576-6600**. Please visit the storm water web page at www.waterboards.ca.gov/stormwtr/index.html to obtain an NOT and other storm water related information and forms.

Sincerely,

Storm Water Section
Division of Water Quality

California Environmental Protection Agency



California Regional Water Quality Control Board

Los Angeles Region



Linda S. Adams
Agency Secretary

320 W. 4th Street, Suite 200, Los Angeles, California 90013
Phone (213) 576-6600 FAX (213) 576-6640 - Internet Address: <http://www.waterboards.ca.gov/losangeles>

Arnold Schwarzenegger
Governor

July 30, 2009

Mr. Thomas D. Gallacher
Director, SSFL – Environment, Health & Safety
The Boeing Company
Santa Susana Field Laboratory
5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

**COMMENTS ON STORM WATER POLLUTION PREVENTION PLAN FOR INTERIM
SOURCE REMOVAL ACTION SUBMITTED IN RESPONSE TO A CALIFORNIA WATER
CODE SECTION 13304 ORDER – THE BOEING COMPANY, SANTA SUSANA FIELD
LABORATORY, CANOGA PARK, CA (NPDES NO. CA0001309, CI NO. 6027, SCP NO. 1111,
SITE ID NO. 2040109)**

Dear Mr. Gallacher:

Los Angeles Regional Water Quality Control Board (Regional Board) storm water and remediation staff have reviewed the June 17, 2009, *Storm Water Pollution Prevention Plan (SWPPP)* submitted in response to a California Water Code Section 13304 Order dated December 3, 2008. The SWPPP, prepared for you by MWH Americas, Inc., was received by the Regional Board on June 22, 2009.

Regional Board staff have the following comments:

- I. The SWPPP was not signed and was not certified as required by Section C. 10 of General Permit No. CAS000002 (Order No. 99-08-DWQ) for storm water discharges associated with construction activities.
- II. Page 300-1, Where are outfalls 008 and 009 on the figures?
- III. Pollutants:
 1. Page 300-1, States pollutants benchmark exceedances at:
 - Outfall 008 – to be lead
 - Outfall 009 – to be copper, lead, dioxins, pH, oil and grease
 2. Page 500-1, Section 500.3.1, cadmium, copper, lead, and mercury are listed as pollutant sources,
 3. Page 600-2, Section 600.5.1, second bullet states:
 - Outfall 008 and – Outfall 009 areas have soil with cadmium, copper, lead, mercury and dioxins.
 4. Figure 5 indicates: detection of lead, copper, and dioxins in the subsurface soil.

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Please clarify the discrepancies in items 1-4 above.

IV. Page 300-2, Section 300.4:

1. Rainy season starts October 1st not October 15th.
2. Best Management Practices (BMPs) should be implemented prior to land disturbance, and maintained during construction.
3. BMPs should be in place during construction regardless if it is or is not rainy season.

V. Page 300-3, Section 300.5, first part:

1. Should be revised to read: **The Storm Water Pollution Prevention Plan Manager (SWPPPM)**. A SWPPP should be prepared for the project first and then someone should manage the plan. Please make the necessary acronym changes throughout the document.
2. Please clarify if Mr. Ben Stewart, the SWPPPM will be available at the construction site during all working hours. If not, please specify the name of the person responsible for the SWPPP/BMPs who will be at the construction site.
3. Ninth line from the top, typo: "The SWPPM ..." should be SWPPP.

VI. Page 500-2, Section 500.3.4

1. No. 2: "...to remaining active and non active areas..." It is not clear if the active refers to disturbed areas and if non active refers to undisturbed areas. If an area has been disturbed and becomes temporarily inactive, it must still have effective BMPs.
2. No. 4: Similar comment. Do the non-active areas mean previously disturbed, not at all disturbed, or will be disturbed in the future? If the area has been previously disturbed, it should be stabilized immediately and not "14 days after the cessation of activities."
3. No. 6: All disturbed areas must be stabilized immediately upon completion. Again, the permit requirement should be implemented year around and not only "during the rainy season."

VII. Page 500-6, Section 500.3.9, WM-5 Solid Waste Management

1. Third and fourth dashed lines: These dashed lines may be combined in order to explain the type of dumpsters used at the site.



VIII. Page 500-7

1. Fourth dashed line: Please explain when the solid waste will be removed from the site.
2. WM-6 Hazardous Waste Management, last dashed line: How will the "accumulative rainwater that has (been) mixed with hazardous waste" be disposed?

IX. Page 500-8

Please note that portable toilets should be placed on the secondary containment.

X. Page 500-8, and Page 600-1, Section 600.1, Site Inspections

1. Please clarify if the contractor will be the same as the SWPPPM as stated on Page 300-3, Section 300.5, 1st paragraph. The General Permit requires that person(s) responsible for SWPPP implementation, including inspection, shall be named with their responsibility clearly stated.
2. After each storm event inspection should be done regardless of any runoff from the site due to the storm event.

XI. Appendix L

The inspection check list shall include, at a minimum, items (a) through (f) of Section A.11 of the General Permit. Also, the check list should clearly indicate if the inspection was done before, during, or after the rain event.

Please telephone Mr. Peter Raftery at (213) 576-6724 or email him at praftery@waterboards.ca.gov if you have any questions.

Sincerely,



Tracy J. Egoscue
Executive Officer

cc: Honorable Alex Padilla, Senator 20th District
Honorable Fran Pavley, Senator, 23rd District
Honorable Tony Strickland, Senator 19th District
Assemblymember Bob Blumenfield, Assemblymember 40th District Assembly
Assemblymember Pedro Nava, Assemblymember 35th District
Assemblymember Audra Strickland, Assemblymember 37th District

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Ms. Samantha Stevens, c/o Assemblymember Bob Blumenfield
Mr. Aron Miller, c/o Senator Fran Pavley
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Mr. Damon Wing, c/o Ms. Linda Parks, Ventura County Board of Supervisors
Mr. Gerard Abrams, Department of Toxic Substances Control, Sacramento
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Dr. Mark Gold, Heal the Bay
Mr. A. J. Greenstein
Mr. Matt Hagemann, Soil/Water/Air Protection Enterprise
Ms. Carol Henderson, Office Manager, Bell Canyon Homeowners Association
Mr. Dan Hirsch, Committee to Bridge the Gap
Ms. Heather L. Hoecherl Esq., Director of Science and Policy, Heal the Bay
Mr. Philip Isorena, State Water Resources Control Board, Division of Water Quality
Ms. Kirsten James, MESM, Staff Scientist, Heal the Bay
Ms. Stephanie Jennings, United States Department of Energy
Ms. Barbara Johnson, Susana Knolls Homeowners, Inc.
Dr. Michael Josselyn, WRA, Inc.
Mr. Thomas Johnson, ETEC Project Manager, United States Department of Energy
Ms. Teresa Jordan
Mr. Thomas Kelly, Environmental Protection Agency, Region 9, (WTR-5)
Dr. Jae Kim, Tetra Tech
Mr. Buck King Department of Toxic Substances Control, Sacramento
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Mr. Wayne Lee
Mr. Michael Levy, State Water Resources Control Board, Office of Chief Counsel

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City of Los Angeles, Bureau of Engineering, Wastewater Systems Engineering Division

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Mr. Thomas D. Gallacher
The Boeing Company

- 6 -

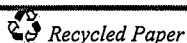
July 30, 2009

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Department of Interior, U.S. Fish and Wildlife Service
Environmental Protection Agency, Region 9, Office of Radiation Programs
Environmental Protection Agency, Region 9, Permits Branch (WTR-5)
Friends of the Los Angeles River
Los Angeles and San Gabriel Rivers Watershed Council
Los Angeles County, Department of Health Services
Los Angeles County, Department of Public Works, Environmental Programs Division
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The Boeing Company Santa Susana Field Laboratory
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ULARA Watermaster
Ventura County Air Pollution Control District
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