

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

Certified Mail

December 22, 2009
In reply refer to SHEA-109457

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

Attention: Mr. Peter Raftery

Subject: December 23, 2009 Quarterly Progress Report for September 10
through December 18, 2009 Activity
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 the Final ISRA Work Plan, Boeing and NASA proposed to provide the Los Angeles Regional Water Quality Control Board (RWQCB) with quarterly progress reports until construction field work is complete (targeted Fall/Winter 2011). This Quarterly Progress Report is submitted for the fourth quarter 2009. This report summarizes ISRA activities performed during the period of September 10 through December 18, 2009.

ISRA activities at the SSFL are being performed pursuant to a California Water Code Section 13304 Cleanup and Abatement Order (CAO) issued by RWQCB dated December 3, 2008. The CAO was issued by the RWQCB in order to achieve compliance with the Waste Discharge Requirements (WDR) for Outfalls 008 and 009 contained in Order No. R4 2004-0111, as amended by Orders No. R4-2006-0008, R4 2006 0036, and R4 2007-0055. The CAO requires the sources that are discharging the constituents that exceeded National Pollution Discharge Elimination System (NPDES) permit limits and benchmarks within the Outfall 008 and 009 watersheds to be addressed. Per the RWQCB CAO, a Preliminary ISRA Work Plan was prepared and submitted to the RWQCB on February 13, 2009 and a Final ISRA Work Plan was prepared and submitted to the RWQCB on May 1, 2009. The Final ISRA Work Plan supplements the Preliminary ISRA Work Plan by completing the ISRA Area identification and remedial planning process for the Outfall 008 watershed and one area in the Outfall 009 watershed, and describes procedures to complete ISRA remedial planning for the remainder of the Outfall 009 watershed.

Per the RWQCB's request, Boeing is providing monthly progress reports on the ISRA activities. This quarterly progress report is a compilation of the monthly progress reports for the period of September 10 through December 18, 2009. The monthly progress reports are attached to this quarterly progress report and provide the complete list of ISRA activities performed during period covered by this quarterly report.



Mr. P. Raftery, RWQCB (SHEA-109457)
December 22, 2009
Page 2

At the December 10, 2009 RWQCB monthly meeting, Boeing, NASA and the Expert Panel provided a ISRA progress presentation to the Regional Board. These presentations are also attached and will be posted on the ISRA website.

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

Sincerely,



A handwritten signature in black ink that reads "Tom Gallacher".

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

LNB:bjc

Attachments:

1. November 2009 Monthly Progress Report (September 10 – October 15, 2009)
2. December 2009 Monthly Progress Report (October 15 – November 16, 2009)
3. January 2010 Monthly Progress Report (November 17 – December 18, 2009)
4. Boeing December 10 ISRA Progress Report Presentation
5. NASA December 10 ISRA Progress Report Presentation
6. Expert Panel December 10 ISRA Progress Report Presentation

cc:	Ms. Cassandra Owens, RWQCB	w/attachment
	Mr. Allen Elliott, NASA	w/attachment
	Mr. Steve Slaten, NASA	w/attachment
	Mr. Rick Lainhart, U.S. ACOE	w/attachment
	Mr. Buck King, DTSC	w/attachment
	Mr. Rick Brausch, DTSC	w/out attachment
	Mr. James Pappas, DTSC	w/out attachment
	Mr. Gerard Abrams, DTSC	w/out attachment
	Mr. Paul Carpenter, DTSC	w/out attachment

- September 10, 2009 – Held teleconference with the RWQCB and DTSC to discuss the Outfall 009 waste characterization radiological results and the planned management of the material.
- September 10, 2009 – Conducted SWPPP inspection.
- September 11, 2009 – Confirmed northern terminus of soil collapse pipeline by trenching.
- September 11, 2009 – Submitted plan to dispose of Outfall 009 ISRA ELV soils containing cesium-137 above background concentrations at a Class 1 or 2 hazardous waste landfill to CDPH.
- September 18, 2009 – Submitted request to add ISRA Areas A2LF-1 and A2LF-3 to the 2009 implementation within Outfall 009 to RWQCB.
- September 18, 2009 – Opened, visually inspected, and sampled liquid from the underground septic tank within Outfall 008 ISRA HVS-3.
- September 21, 2009 – Submitted the Outfall 008 HVS-2A soil collapse feature and pipeline management plan letter amendment to the Final ISRA Work Plan to RWQCB and DTSC.
- September 22- Informed RWQCB and DTSC of the discovery of inert metal shards from historical projectile tests within Outfall 008 ISRA Area HVS-2A. The scrap metal will be recycled following procedures established by the site's outside ordinance expert.
- September 24, 2009 – Received letter from CDPH providing concurrence with the plan to dispose Outfall 009 ISRA ELV soils containing cesium-137 above background concentrations at a Class 1 or 2 hazardous waste landfill.
- September 24, 2009 – Submitted management plan for Outfall 009 ISRA ELV soils containing cesium-137 above background concentrations to the RWQCB.
- September 24, 2009 – Conducted SWPPP inspection.
- September 25, 2009 – Removed surficial soil in the vicinity of the underground septic tank within the Outfall 008 ISRA HVS-3.
- September 25, 2009 – Verified condition of pre-construction BMPs at the Outfall 009 ISRA ELV areas.
- September 25, 2009 – Held teleconference with the RWQCB and DTSC to discuss the Outfall 008 confirmation sampling results.
- September 29, 2009 – Performed pre-field biological survey at the Outfall 009 ISRA Areas A2LF-1 and A2LF-3.
- September 29, 2009 – Conducted pre-fieldwork site walk of 2009 Outfall 009 ISRA Areas with RWQCB and DTSC.
- September 29, 2009 – Received approval from the RWQCB and DTSC on the HVS-2A Soil Collapse Feature and Pipeline Letter Amendment to the Final ISRA Work Plan.
- September 30, 2009 – Received conditional approval letter from RWQCB on the management plan for Outfall 009 ISRA ELV soils containing cesium-137 above background concentrations.
- September 30, 2009 – Collected additional characterization samples of potential Outfall 008 ISRA Area borrow soils located east of HVS-2A.

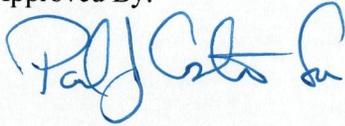
- October 1, 2009 – Received comments from DTSC on the management plan for Outfall 009 ISRA ELV soils containing cesium-137 above background concentrations.
- October 2 - 6, 2009 – Conducted Outfall 008 HVS-2A soil collapse feature excavation, pipeline removal, and confirmation sampling.
- October 5, 2009 - Held teleconference with the RWQCB and DTSC to discuss the Outfall 008 confirmation sampling results.
- October 5, 2009 – Ventura County performed a site walk to observe Outfall 008 excavation areas and potential Outfall 008 ISRA Area borrow soils located east of HVS-2A.
- October 5, 2009 – Performed utilities survey at the Outfall 009 ISRA Areas A2LF-1 and A2LF-3.
- October 8, 2009 – Conducted SWPPP inspection.
- October 9, 2009 – Submitted management plan for the Outfall 008 underground septic tank to RWQCB and DTSC.
- October 12, 2009 - Boeing / NASA – Received hardcopy approval of waste profiles with landfills for excavated soil from 2009 ISRA Outfall 009 ELV areas.
- October 12, 2009 – Conducted SWPPP inspection and covered all Outfall 008 excavations and portions of the Outfall 009 ELV soils with plastic in preparation for rain.
- October 12, 2009 - Held teleconference with the RWQCB and DTSC to discuss the Outfall 008 confirmation sampling results.
- October 13, 2009 – Submitted Biological Report for Outfall 009 to the RWQCB.
- October 13, 2009 – Conducted SWPPP inspection and collected surface water samples per the SWPPP downgradient of Outfall 008 ISRA Areas HVS-2B-2 and HVS-2C.
- October 14, 2009 – Conducted SWPPP inspection
- October 14, 2009 – Submitted a response to RWQCB comments on the request to add ISRA Areas A2LF-1 and A2LF-3 to the 2009 implementation within Outfall 009.
- October 15, 2009 - Surface Water Expert Panel staff – Onsite to assess 3 areas as bioswales in Outfall 008, review additional areas within Outfall 009 for containerized plant installation.

30-Day Look ahead – through November 15, 2009

- Boeing – Present ISRA Progress Presentation to the Surface Water Expert Panel
- Surface Water Expert Panel – Develop Outfall 008 bioswale implementation plan and containerized plant installation plan for ISRA Outfall 008 area and select locations within Outfall 009.
- Boeing – Begin installation of Outfall 008 bioswales upon design completion.
- Boeing – Complete planned 2009 ISRA field work within Outfall 008 and finalize confirmation sample results with the RWQCB and DTSC.
- Ventura County – Inspect Outfall 008 completed excavations.

- Boeing – Conduct aerial topographic survey of Outfall 008 completed excavations, recontour Outfall 008 ISRA sites, and conduct aerial topographic survey of Outfall 008 re-contoured excavations.
- Boeing – Based upon approved confirmation sample results for the completed 2009 ISRA Outfall 008 areas, begin implementation of the Surface Water Expert Panel recommendations for containerized plantings and initiate restoration activities within these ISRA areas.
- Boeing – Upon receipt of approval to proceed, perform vegetation clearance and install pre-construction BMPs at the Outfall 009 ISRA Areas A2LF-1 and A2LF-3.
- Boeing / NASA – When authorized - Begin planned 2009 ISRA field work within Outfall 009.
- Boeing / NASA – Finalize restoration plan for 2009 ISRA Outfall 009 areas – to be implemented once confirmation sampling is completed.
- Boeing / NASA – Conduct additional data gap and source delineation sampling within Outfall 009 to identify 2010 / 2011 ISRA areas.

Approved By:



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

LNB:bjc

Distribution:

Mr. Peter Raftery, RWQCB
Ms. Cassandra Owens, RWQCB
Mr. Buck King, DTSC
Mr. Allen Elliott, NASA
Mr. Steven Slaten, NASA



Date: 11/19/2009 No.: SHEA-109350

To: Tracy Egoscue
Executive Office
LA Regional Water Quality Control
Board

From: Tom Gallacher
Director, Santa Susana Field Laboratory
Environment, Health & Safety

Subject: December 2009 Monthly Progress Report for October 15 - November 16, 2009 Activity
California Water Code Section 13304 Interim Source Removal Action Order (ISRA)
(NPDES No. CA0001309, CI No. 6027, SCP NO. 1111, Site ID No. 2040109)

Per the Regional Water Board's Request, Boeing is providing the following Monthly Progress Report on the Interim Source Removal Action (ISRA) activities for the period of October 15, 2009 to November 16, 2009. In addition, a 30-day Look-Ahead is also provided.

Weekly team meetings have been held to track the ISRA activities since April 15, 2009. The meeting participants consist of RWQCB staff, DTSC staff, Ventura County staff, Surface Water Expert Panel Members, Boeing, and NASA. For the period from mid-October to mid-November, the primary activities have been the completion of additional excavation and confirmation soil sampling at Outfall 008, discussing Outfall 008 confirmation soil sampling results with the RWQCB and DTSC, and the completion of planned excavation and confirmation soil sampling at Outfall 009 A2LF areas. The removal plan for the underground septic tank within Outfall 008 ISRA Area HVS-3 was approved by RWQCB, a tank removal permit was issued by Ventura County, and the septic tank removal plan was implemented. Additional characterization samples of potential Outfall 008 ISRA Area borrow soils located east of Outfall 008 ISRA Area HVS-2A were collected. Ventura County grading permit inspectors have continued to perform unannounced field inspections. All field work has been in compliance with the Ventura County grading permit requirements. Natural best management practices (BMPs) consisting of containerized plants and natural brush wattles were installed in nine locations identified by the Surface Water Expert Panel within the Outfall 008 drainage. Attached are a few progress photographs of the work that has been performed in both the Outfall 008 and 009 ISRA Areas.

Completed Tasks – October 15, 2009 to November 16, 2009

- October 15 - 19, 2009 – Completed additional excavation and collected confirmation samples from ISRA Areas within Outfall 008. Based on confirmation sample results compared to ISRA soil remediation goals (SRGs), additional excavation and confirmation sampling in Outfall 008 was performed at ISRA Areas HVS-2A, HVS-2B-1, and HVS-3. In total, ~4,400 cy of soil has been excavated, ~120 confirmation samples collected, and ~290 truckloads of excavated soil delivered to the offsite disposal facility. RWQCB has collected at least one split sample from each of the Outfall 008 ISRA Areas except DRG-1.
- October 21, 2009 – Removed liquids from underground septic tank located within Outfall 008 ISRA Area HVS-3, no solids/sludge were present.

- October 23, 2009 – Received a follow-up letter from California Department of Public Health (CDPH) clarifying CDPH's role in the management of radiological contaminants in California. The letter states CDPH provides consulting services and subject matter expertise to interested state agencies in the disposal of radiological contaminants in California, but DTSC is the state agency solely entrusted with permitting landfills and the disposal of hazardous materials, including radiological contaminants.
- October 26, 2009 – Present ISRA Progress Presentation to the Surface Water Expert Panel.
- October 27, 2009 – Collected additional characterization samples of potential Outfall 008 ISRA Area borrow soils located east of HVS-2A.
- October 28, 2009 – Received approval from the RWQCB for the removal plan for the underground septic tank located within Outfall 008 ISRA Area HVS-3.
- October 29, 2009 – Removed septic tank at HVS-3 and collected confirmation samples; RWQCB collected a split sample.
- November 4, 2009 – Received verbal notice from Ventura County that Outfall 008 completed excavations do not require inspection, as long as an aerial survey documenting excavation extents is performed.
- November 4, 2009 – Received approval from RWQCB and DTSC of the Work Plan Amendment for inclusion of Outfall 009 ISRA Areas A2LF-1 and A2LF-3.
- November 4, 2009 – Reviewed confirmation sampling plan for Outfall 009 ISRA Areas A2LF-1 and A2LF-3 with RWQCB and DTSC.
- November 4 - 5, 2009 - Installed Natural BMPs consisting of approx. 850 containerized plants and natural brush wattles in 9 locations identified by the Surface Water Expert Panel within the Outfall 008 drainage.
- November 5 - 6, 2009 – Performed vegetation clearance and installed pre-construction BMPs at Outfall 009 ISRA Areas A2LF-1 and A2LF-3.
- November 6 - 16, 2009 – Completed planned excavations and collected confirmation samples from Outfall 009 ISRA Areas A2LF-1 and A2LF-3. In total, ~180 cy of soil have been excavated and placed into 9 roll-off bins, and 7 confirmation samples have been collected. The RWQCB has collected 7 split samples at these two locations.
- November 11, 2009 – Ventura County closed the Septic Tank Removal permit since the tank removal has been completed.
- November 13, 2009 – Conducted aerial topographic survey of Outfall 008 completed excavations.

30-Day Look ahead – through December 16, 2009

- Boeing –Re-contour Outfall 008 ISRA areas, and conduct aerial topographic survey of Outfall 008 re-contoured excavations.
- Boeing – In completed re-contoured Outfall 008 ISRA areas: install erosion control BMPs and hydroseed/mulch, implement Expert Panel recommendations for containerized plantings.

T. Egoscue, RWQCB (SHEA-109350)

November 19, 2009

Page 3

- Boeing – Install irrigation systems for planted Natural BMPs at Outfall 008.
- NASA / Boeing – Begin offsite disposal of Outfall 009 A2LF soils.
- NASA / Boeing – Review A2LF-1 and A2LF-3 confirmation sample results with RWQCB.
- NASA / Boeing – Conduct Outfall 009 site restoration at A2LF locations, following approval of confirmation sampling results by RWQCB and DTSC and conducting aerial topographic survey completed excavations.
- Boeing / NASA – Finalize Performance Monitoring Plan for surface water sampling at Outfalls 008 and 009, and submit to RWQCB.
- Boeing / NASA / Surface Water Expert Panel – Present ISRA Progress Presentation at December 10, 2009 RWQCB meeting.
- Boeing / NASA – Plan additional data gap and source delineation sampling within Outfall 009 to identify 2010 ISRA areas, and prepare work plan addendum.

Approved By:



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

LNB:bjc

Attachment: ISRA Outfall 008 and Outfall 009 Progress photos

Distribution:

Mr. Peter Raftery, RWQCB
Ms. Cassandra Owens, RWQCB
Mr. Buck King, DTSC
Mr. Allen Elliott, NASA
Mr. Steven Slaten, NASA

**Interim Source Removal Action
Outfall 008
Progress Photos**



Excavation at Outfall 008 ISRA Area HVS-2A



Post Excavation at Outfall 008 ISRA Area HVS-2A

**Natural Best Management Practices Installation
Per Recommendations by Surface Water Expert Panel**



Installation of Natural BMPs [Native plants]
Outfall 008

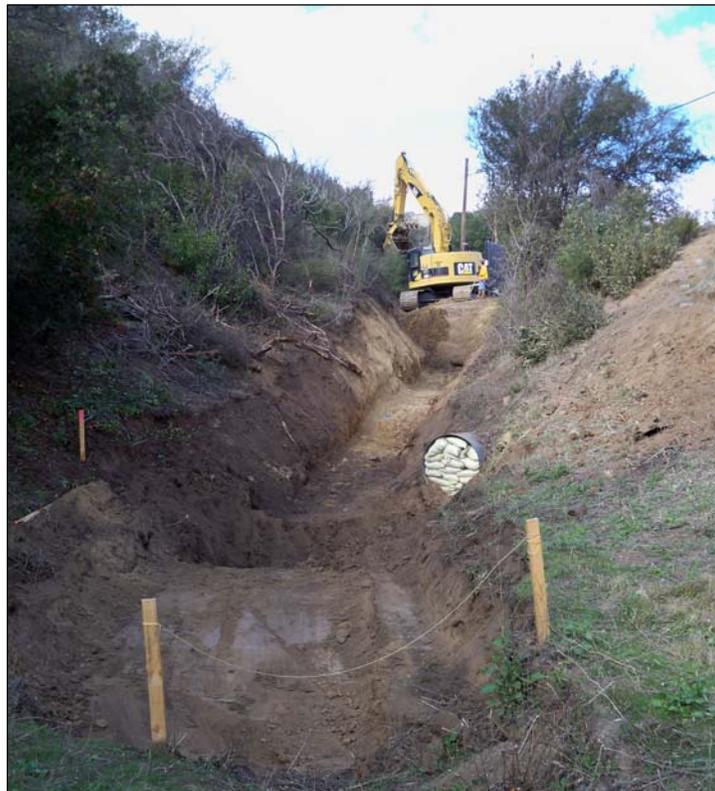


Completed installation of Natural BMPs
Outfall 008

**Interim Source Removal Action
Outfall 009
Progress Photos**



Removal of Soil from NASA ISRA Area A2LF-1



Excavation of NASA ISRA Area A2LF-3



The Boeing Company

5800 Woolsey Canyon Road
Canoga Park, CA 91304-1148

Date: 12/22/09 No.: SHEA-109459

To: Tracy Egoscue
Executive Office
LA Regional Water Quality Control
Board

From: Tom Gallacher
Director, Santa Susana
Environmental, Health & Safety

Subject: January 2010 Monthly Progress Report for November 17 - December 18, 2009 Activity
California Water Code Section 13304 Interim Source Removal Action Order (ISRA)
(NPDES No. CA0001309, CI No. 6027, SCP NO. 1111, Site ID No. 2040109)

Per the Regional Water Board's Request, Boeing is providing the following Monthly Progress Report on the Interim Source Removal Action (ISRA) activities for the period of November 17, 2009 to December 18, 2009. In addition, a 30 day Look-Ahead is also provided.

Weekly team meetings have been held to track the ISRA activities since April 15, 2009. The meeting participants consist of RWQCB staff, DTSC staff, Ventura County staff, Surface Water Expert Panel Members, Boeing, and NASA. For the period from mid-November to mid-December, the primary activities have been the receipt of agency concurrence of completion at the 2009 ISRAs within Outfall 008 and 009, agency acceptance of the local Outfall 008 soil borrow area for use as backfill at Outfall 008 ISRAs, the completion of restoration at Outfall 008 ISRAs and Outfall 009 ISRA A2LF-1, and the implementation of performance monitoring at completed ISRAs. Ventura County grading permit inspectors have continued to perform unannounced field inspections. All field work has been in compliance with the Ventura County grading permit requirements. Natural best management practices (BMPs) technical memorandum prepared by the Surface Water Expert Panel was submitted to the RWQCB. On December 10, 2009, Boeing, NASA and the Expert Panel provided 2009 ISRA progress presentations at the LA Regional Water Quality Control Board monthly meeting. These presentations will be included in the 4th Quarter ISRA progress report as well as posted on the ISRA website.

Completed Tasks – November 17, 2009 to December 18, 2009

- November 17 – December 18, 2009 – Conducted SWPPP inspections per the SWPPP.
- November 17, 2009 – Submitted the Expert Panel technical memorandum on Natural BMPs to RWQCB.
- November 19, 2009 – Reviewed confirmation sample results for Outfall 008 ISRA Areas HVS-1, HVS-2A, HVS-2B-1, HVS-2D, and HVS-4 with RWQCB and DTSC; Agencies concurred that ISRA activities at these areas were complete and restoration could begin.
- November 19, 2009 – Reviewed sample results for local soil borrow area within Outfall 008 with RWQCB and DTSC; Agencies concurred that the soil borrow area is acceptable for use as backfill in Outfall 008 ISRA Areas.

- November 20 – December 4, 2009 – Completed re-contouring and site restoration at Outfall 008 ISRA areas, including installation of erosion control BMPs and hydroseed/mulch.
- November 23, 2009 – Reviewed confirmation sample results for Outfall 008 ISRA Areas CYN-1 and HVS-3 with RWQCB; RWQCB concurred that ISRA activities at these areas were complete and restoration could begin.
- November 23, 2009 – Reviewed confirmation sample results for Outfall 009 ISRA Area A2LF-1 with RWQCB; RWQCB provided verbal approval that ISRA activities at A2LF-1 were complete and restoration could begin.
- November 25, 2009 – Completed re-contouring and site restoration at Outfall 009 ISRA area A2LF-1, including installation of erosion control BMPs and hydroseed/mulch.
- November 30, 2009 – Completed offsite disposal of waste soils from Outfall 008 ISRA Areas.
- December 3, 2009 – Reviewed confirmation sample results for Outfall 009 ISRA Area A2LF-3 with RWQCB and DTSC; Agencies concurred that ISRA activities at this area were complete and restoration could begin. In addition, the November 23rd results for A2LF-1 were reviewed by RWQCB and DTSC. Both Agencies concurred that the ISRA activities at this area are complete.
- December 4, 2009 – Completed restoration of Outfall 008 ISRA Areas, including recontouring and hydroseeding. Installed plastic HDPE tarp over A2LF-3 culvert maintenance activities prior to December 7, 2008 rain event.. Culvert Maintenance and headwall installation will be performed pending rain events.
- December 6 - 14, 2009 – Conducted Performance Monitoring inspections and collected surface water samples per the draft Performance Monitoring Plan.
- December 10, 2009 – Boeing, NASA, and Surface Water Expert Panel present ISRA Progress summary at RWQCB meeting.
- December 11, 2009 – Collected a surface water sample down-gradient of Outfall 009 ISRA Area A2LF-3 per the SWPPP.
- December 18, 2009 – Conducted aerial topographic survey of Outfall 008 completed excavations.

30-Day Look ahead – through January 17, 2010

- Boeing – In completed re-contoured Outfall 008 ISRA Areas: Implement Expert Panel recommendations for containerized plantings. In addition, implement Expert Panel recommendations for containerized plantings at the Outfall 009 locations, including culverts and bank stabilization in the northern drainage.
- Boeing – Install irrigation systems for planted Natural BMPs at Outfall 008.
- Boeing – Close-out the Ventura County Grading Permit for Outfall 008 ISRA Areas.
- NASA / Boeing – Begin offsite disposal of Outfall 009 A2LF soils.
- NASA / Boeing – Complete culvert maintenance at Outfall 009 ISRA Area A2LF-3.
- Boeing / NASA – Finalize Performance Monitoring Plan for surface water sampling at Outfalls 008 and 009, and submit to RWQCB.

- Boeing / NASA – Continue performing SWPPP inspections per the SWPPP and Performance Monitoring inspections and sampling per the Performance Monitoring Plan.
- Boeing / NASA – Plan and perform additional data gap and source delineation sampling within Outfall 009 to identify 2010 ISRA areas, prepare work plan addendum and review project specific permits.
- Develop 2010 ISRA Implementation Schedule.

Approved By:



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

LNB:bjc

Distribution:

Peter Raftery, RWQCB
Cassandra Owens, RWQCB
Buck King, DTSC
Allen Elliott, NASA
Steven Slaten, NASA