

APPENDIX J

PHASE II IMPLEMENTATION BIOLOGICAL REPORT



February 28, 2011
 Project No. 1102-0161

The Boeing Company
 5800 Woolsey Canyon Road
 Canoga Park, CA 91304

Attention: Mr. Art Lenox

Subject: Santa Susana Field Laboratory Outfall 009 ISRA Biological Survey and Construction Monitoring Report – June 2010 to February 2011

Dear Mr. Lenox:

Padre Associates, Inc. (Padre) is pleased to provide The Boeing Company (Boeing) with the following letter-report documenting our findings during biological survey and monitoring activities conducted at the Santa Susana Field Laboratory (SSFL) Outfall 009 Interim Source Removal Action Areas and Soil Borrow Area from June 2010 to February 2011. Past documentation for this project included the *Biological Resources Study for the Interim Source Removal Action Areas for Outfall 009 – Santa Susana Field Laboratory* (“Study”, Padre, June 2010), and associated *Addendum to Biological Resources Study for ISRA Outfall 009 – Pre-Activity Biological Survey Results for Proposed Soil Borrow Area adjacent to RD-47* (“Addendum”, Padre, August 2010). Each of these reports provided specific data and background information on biological resources known to occur or potentially occur at the subject project sites, a brief evaluation of the potential impacts on biological resources, and conservation measures for minimization of impacts to biological resources. Biological survey and monitoring activities were performed according to these conservation measures at the areas listed in Table 1 below. Additional areas were initially surveyed, but this report focuses on the active work areas for the time period of June 2010 through February 2011.

Table 1. Interim Source Removal Action (ISRA) Areas and associated Soil Borrow Area for Outfall 009 Watershed (June 2010 through February 2011)

Historical Operations Areas	ISRA Areas and Soil Borrow Area	Watershed	Property Owner/SSFL or Other Area
B1	B1-1A, B1-1B, B1-1C, B1-1D, B1-2	009	Boeing/Area I
IEL	IEL-1, IEL-2	009	Boeing/Area I
CTL-1	CTL1-1A, CTL1-1B	009	Boeing/Area I
Adjacent to RD-47	Soil Borrow Area	009	Boeing/Area I
Ash Pile/B515 STP	AP/STP-1A, 1D, 1E-2, 1E-3, 1F	009	NASA/Area II*

*NASA-related tabular documentation is shaded in light blue throughout this report.

Permit Compliance Summary

Work activities for the subject project were conducted as directed by the Cleanup and Abatement Order (Order) adopted by the Los Angeles Regional Water Quality Control Board (LARWQCB) on December 3, 2008, requiring the evaluation, selection, and implementation of cleanup activities at areas within Outfall 009. Work activities were also conducted in compliance with California Department of Fish and Game (CDFG) Streambed Alteration Agreement (SAA) No. 1600-2003-5052-R5 (and associated extensions and amendments), which requires the completion of pre-construction, concurrent biological surveys and monitoring, and post-construction reporting. Biological survey and monitoring results for the subject project are provided below.

Personnel

Biological surveys and monitoring were conducted by Chris Dunn, Padre Project Biologist throughout a majority of the project duration, with back-up assistance by Matt Ingamells, Padre Senior Biologist. Mr. Dunn and Mr. Ingamells have a combined 35 years experience conducting biological surveys and monitoring, including over 14 combined years at SSFL.

Survey and Monitoring Dates

Biological surveys and construction monitoring, job walks with Boeing, Contractor and Agency staff, and planting oversight and inspections were conducted at one or more of the subject sites on the days listed in Table 2 below:

Table 2. Biological Survey and Monitoring Days

Location(s)	Personnel	Activity	Date(s)
B1, IEL, CTL1,	Dunn	Bio Study surveys	3/24/10, 3/25/10, 3/26/10, 4/15/10, 4/16/10
AP/STP	Dunn	Bio Study surveys	3/24/10, 4/16/10
B1, IEL, CTL1	Dunn	Job walk	6/2/10
Soil Borrow Area	Ingamells*, Dunn	Bio Study Addendum	6/10/10*, 8/27/10
IEL	Dunn	Pre-activity surveys	6/28/10, 9/23/10
CTL1	Dunn	Pre-activity survey	7/1/10
B1-1	Dunn	Pre-activity survey	7/1/10
B1-2	Dunn	Pre-activity survey	7/2/10
B1-2, CTL1, IEL	Dunn	Job walk	7/8/10

Table 2. Biological Survey and Monitoring Days (Cont.)

Location(s)	Personnel	Activity	Date(s)
AP/STP	Dunn	Job walk	8/30/10
AP/STP	Dunn	Pre-activity meeting	9/28/10
AP/STP	Dunn	Pre-activity survey	9/28/10
AP/STP	Dunn	Veg clearance monitoring	10/4/10
AP/STP	Dunn	Construction monitoring	10/5/10, 10/7/10, 10/11/10, 10/14/10
AP/STP	Dunn	Follow-up surveys	12/3/10, 12/15/10
Soil Borrow Area	Dunn	Pre-activity survey	10/28/10
B1-1	Dunn	Veg clearance monitoring	7/6/10, 7/13/10, 7/15/10
CTL1	Dunn	Veg clearance monitoring	7/13/10, 7/15/10
CTL1	Dunn	Construction monitoring	7/19/10, 7/21/10, 7/26/10, 7/27/10, 8/4/10, 9/10/10, 9/14/10
B1-1	Dunn	Construction monitoring	7/27/10, 7/30/10, 8/2/10, 8/3/10, 8/4/10, 8/9/10, 8/10/10, 8/11/10, 8/16/10, 8/17/10, 8/19/10, 8/20/10, 8/25/10, 8/27/10, 9/20/10, 9/28/10, 10/4/10, 11/2/10, 11/11/10
B1-2	Dunn, Ingamells*	Construction monitoring	8/2/10, 8/3/10, 8/9/10, 8/11/10, 8/13/10, 8/16/10, 8/17/10, 8/19/10, 8/20/10, 8/23/10, 8/24/10, 8/25/10, 8/27/10, 8/30/10, 8/31/10, 9/2/10*, 9/10/10, 9/20/10, 9/23/10, 9/28/10, 11/2/10, 11/4/10, 11/11/10, 11/17/10, 11/18/10, 11/22/10, 11/23/10, 12/1/10, 12/3/10, 12/15/10, 1/27/11, 1/31/10, 2/10/11
Soil Borrow Area	Dunn	Job walk	10/21/10
Soil Borrow Area	Dunn	Construction monitoring	10/28/10, 11/11/10, 11/23/10, 12/3/10, 2/10/11
Hydrogen Lab	Dunn	Nursery plant inspections	11/2/10, 11/23/10, 12/3/10, 12/13/10, 1/12/11, 1/31/11, 2/10/11, future visits TBD
IEL-1	Dunn	Construction monitoring & follow-up survey	8/10/10, 11/2/10
CTL1	Dunn	Planting oversight & inspections	11/18/10, 11/22/10, 11/23/10, 12/1/10, 12/3/10, 12/7/10, 12/13/10, 1/27/11, 2/10/11, future visits TBD
B1-1	Dunn	Planting oversight & inspections	2/10/11, future visits TBD
B1, CTL1, Soil Borrow Area	Dunn	Follow-up surveys	2/10/11, 2/17/11

Biological Survey Methods and Results

Each project area and adjacent areas were surveyed by walking transects of opportunity throughout all vegetation types. Vegetation types were quantified, and a plant species list was compiled for all of the ISRA Areas and the Soil Borrow Area, and provided in Appendix A of the Study. Presence/absence surveys were also conducted at the time for special-status plant species including, but not limited to Santa Susana tarplant (SSTP, *Deinandra minthornii*, a State Rare and California Native Plant Society [CNPS] List 1B.2 species), Braunton's milk-vetch (*Astragalus brauntonii*, a federal endangered and CNPS List 1B.1 species), San Fernando Valley spineflower (*Chorizanthe parryi* var. *fernandina*, a federal candidate, State endangered, and CNPS List 1B.1 species), ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*, a CNPS List 4 species), Plummer's mariposa lily (*Calochortus plummerae*, a CNPS List 1B.2 species), coast live oak (*Quercus agrifolia*, a Ventura County protected tree species) and southern California black walnut (*Juglans californica* var. *californica*, a CNPS List 4 species), and special-status wildlife species including, but not limited to coastal western whiptail (a CDFG Special Animal), coast horned lizard (a California Species of Special Concern), silvery legless lizard (a California Species of Special Concern), San Bernardino ring-neck snake (a U.S. Forest Service Sensitive Species), Cooper's hawk (a CDFG Watch List species when nesting), southern California rufous-crowned sparrow (a CDFG Watch List species), and yellow warbler (a California Species of Special Concern when nesting).

Special-status plants observed within or immediately adjacent to the subject sites and access routes were flagged with fluorescent pink tape to alert workers of their presence and to later have them fenced as an avoidance measure (discussed below). All wildlife species observed at or near the survey area were noted through direct observation or with the use of 10x42 binoculars. Breeding bird activity (e.g., courting behavior, carrying nesting material, and food deliveries to nests) was also noted, if observed.

Initial biological surveys for the ISRA Areas were conducted by Chris Dunn in March and April 2010, and were summarized in the aforementioned June 2010 Study. Initial biological surveys for the Soil Borrow Area (and its associated access road) were conducted in similar fashion by Matt Ingamells in June 2010 and by Chris Dunn in August 2010, and were summarized in the aforementioned August 2010 Addendum. Please refer to these documents for specific survey results.

Pre-activity biological surveys were conducted by Chris Dunn in June, July, September and October 2010 prior to work activities progressing to each site. Surveys were conducted in similar fashion as described above, and included the addition of flagging of special-status plants, where necessary. A job walk was also conducted at each of the sites to alert the project staff of any sensitive issues. A discussion on the findings for the pre-activity biological surveys is provided in the paragraphs below:

Vegetation. As discussed in the June 2010 Study and August 2010 Addendum, vegetation communities within the ISRA Areas and Soil Borrow Area were composed of thick leaf yerba santa (*Eriodictyon crassifolium*) scrub, chamise-black sage (*Adenostoma fasciculatum-Salvia mellifera*) scrub, chaparral bush mallow (*Malacothamnus fasciculatus* ssp. *fasciculatus*) scrub, deerweed (*Lotus scoparius*) scrub, canyon sunflower (*Venegasia*

carpesioides) scrub, laurel sumac (*Malosma laurina*) scrub, mulefat (*Baccharis salicifolia*) thicket, arroyo willow (*Salix lasiolepis*) thicket, hairy leaf ceanothus (*Ceanothus oliganthus* var. *oliganthus*) chaparral, coyote brush (*Baccharis pilularis*) scrub, California sagebrush (*Artemisia californica*) scrub, coast live oak riparian and upland woodland, and annual grassland. Portions of these areas also exhibited undifferentiated exotic vegetation, bare soil, rock outcrops, and asphalt and gravel areas. These conditions were largely unchanged during the pre-activity surveys. With exception to the observation of Plummer's mariposa lily during the pre-activity surveys (see Table 3 below), all other species observed at the subject sites are listed in Appendix A of the Study. Observations of special-status plants at or adjacent to the ISRA Areas and Soil Borrow Area were refined (added to) during the pre-activity surveys, and included the following:

Table 3. Special-Status Plants Observed During Pre-Activity Surveys

Santa Susana tarplant	<ul style="list-style-type: none"> • B1-1 (22 individuals onsite, several individuals adjacent); • B1-2 (54 individuals onsite); • A1LF-1 (1 individual onsite); • CTL1-1 (1 individual adjacent); • Soil Borrow Area (9 individuals along the access road, 31 individuals on adjacent rock outcrops);
Plummer's mariposa lily	<ul style="list-style-type: none"> • CTL1-1 (29 individuals adjacent); • B1-1 (3 individuals onsite, 1 individual adjacent)
Coast live oak	<ul style="list-style-type: none"> • B1-1 (2 trees onsite); • B1-2 (22 trees onsite); • Soil Borrow Area (4 trees adjacent); • AP/STP-1A (1 oak onsite); • AP/STP-1D (1 oak onsite); • AP/STP-1F (4 oaks onsite)

These tallies were then refined again as the project progressed, as indicated in Table 5 below.

Wildlife Observations. Wildlife observed during pre-activity biological surveys collectively throughout the ISRA Areas and the Soil Borrow Area included many of the species listed in the June 2010 Study and August 2010 Addendum. Several of bird species listed in Table 4 below exhibited courting behavior and food collection, but no active bird nests were observed onsite. Other nesting birds such as cliff swallows were evaluated and were determined to be located in areas sufficiently separated from the ISRA Areas, so as to not be affected by work activities.

Table 4. Bird Species Observed during Pre-activity Biological Surveys of the ISRA Areas and Soil Borrow Area.

• acorn woodpecker	• common raven	• owl sp. (pellets)
• Anna's hummingbird*	• Cooper's hawk	• red-tailed hawk***
• Bewick's wren	• Costa's hummingbird	• rock wren
• black-headed grosbeak	• house finch*	• song sparrow
• black phoebe	• house wren	• spotted towhee
• bushtit	• lesser goldfinch	• turkey vulture
• California quail (covey)	• MacGillivray's warbler	• western meadowlark
• California thrasher	• mourning dove	• western scrub jay
• California towhee	• northern mockingbird	• white-crowned sparrow
• canyon wren	• Nuttall's woodpecker	• wrenit
• cliff swallow**	• oak titmouse	

*Pairing

**Nesting on cliff face east of CTL1

***Including an unoccupied nest on cliff face east of CTL1 (However, this nest was successful earlier in the year).

Mammal observations included Audubon's cottontail, black-tailed deer (tracks, scat), coyote (scat), pocket gopher (burrows), ground squirrel, and woodrat (likely dusky footed, nests). No special-status mammals were observed at the ISRA Areas or Soil Borrow Area.

Reptile and amphibian (including special-status species) observations included side-blotched lizard, western fence lizard, southern Pacific rattlesnake, and western whiptail (2 individuals observed at CTL1 and 1 individual at B1-1A). Although not observed during these surveys, coast horned lizard, San Bernardino ring-neck snake, and silvery legless lizard have been observed at SSFL, and were moderately expected to occur at the ISRA Areas or Soil Borrow Area, depending on site-specific habitats.

No suitable habitat for fish was observed at the ISRA Areas and Soil Borrow Area, as permanent drainages or ponds are absent from all the sites; accordingly, no fish species were observed or expected.

Biological Monitoring Activities

Padre Biologist Chris Dunn completed periodic construction monitoring duties requested by Boeing to ensure that permit conditions described in the CDFG SAA were upheld. Work activities for the project's 2010 phase began on July 6, 2010 but were not completed until approximately February 16, 2011. The monitor's duties included the following items, in no particular order:

- Advising Boeing (and its contractors) on conditions outlined in the project's SAA, and facilitating compliance with each SAA condition.
- Participating in job walks at each site to provide information to contractors on sensitive biological resources (if present).
- Conducting environmental sensitivity training sessions for contractor personnel on subjects relating to protection of special-status plant and wildlife species and other SAA compliance issues. One morning tailgate meeting and numerous in-field

discussions were conducted with various project personnel regarding sensitive biological issues throughout the project duration.

- Re-flagging of special-status plants to alert workers of their presence and need for avoidance.
- Ensuring that the contractor had clearly defined the limits of the project, including the placement of water hoses across adjacent areas that potentially contain special-status plants.
- Ensuring that the contractor had installed and maintained protective fencing around special-status plants within or adjacent to each project site throughout the project duration.
- Photodocumentation of project activities (selected photographs provided in Appendix A).
- Completion of field observations sheets (can be provided upon request).
- Monitoring for any wildlife species (including special-status species) that may enter the site, and if necessary, informing Boeing so that CDFG would be notified. Monitoring included activities such as surveys and inspections of oak tree duff layers for silvery legless lizard, scrub and rocky outcrop habitats for coast horned lizard, and various potential bird nesting habitat.
- Conducting relocations (if necessary) of captured wildlife (i.e., reptiles or amphibians) within the project site, and establishment of suitable habitat relocation areas according to the CDFG-approved wildlife relocation plan (established via email correspondence in 2008).
- If special-status wildlife species were encountered, completion of California Native Species Field Survey Forms and submittal to the CDFG Natural Diversity Data Base (CNDDDB) for observations of special status species.
- Noting any required native tree or mulefat shrub removals for future mitigation purposes.
- Monitoring work activities around oak trees to ensure impacts to tree and root systems were minimized or avoided, including consultations with Pacific Horticulture (Don Rodrigues, Certified Arborist).
- Providing supervision for the installation of containerized plantings through coordination with WRA Environmental Consultants (the Project's Landscape Architect).

Special-Status Plant Protection. As activities progressed and the work areas (including any adjacent access points) became more clearly defined, additional special-status plants observed within or adjacent to each work area were noted, flagged and fenced (where necessary). A tally of all special-status plants observed throughout the project is provided in Table 5 below (and includes data from the pre-activity survey data in Table 3). Please refer to Appendix A for photodocumentation of protective measures.

Table 5. Total Project Observations of Special-Status Plants*

Santa Susana tarplant	<ul style="list-style-type: none"> • B1-1 (25 individuals onsite, 8 individuals adjacent); • B1-2 (54 individuals onsite, 6 individuals adjacent); • A1LF-1 (1 individual onsite); • CTL1-1 (4 individuals adjacent); • Soil Borrow Area (9 individuals along the access road, 31 individuals on adjacent rock outcrops);
Plummer's mariposa lily	<ul style="list-style-type: none"> • CTL1-1 (29 individuals adjacent); • B1-1 (10 individuals onsite, 1 individual adjacent)
Coast live oak	<ul style="list-style-type: none"> • B1-1 (2 trees onsite); • B1-2 (22 trees onsite); • Soil Borrow Area (4 trees adjacent); • AP/STP-1A (1 oak onsite); • AP/STP-1D (1 oak onsite); • AP/STP-1F (4 oaks onsite)

*Includes data from Table 3 above

Concerted efforts to protect special-status plants were made throughout the duration of the project by 1) conducting repeated discussions with staff members of the plants' presence; 2) installation and maintenance of flagging and protective fencing; 3) avoiding encroachment of adjacent habitats at vehicle and equipment parking/staging areas; and 4) carefully navigating each site while dragging hoses, plastic sheeting or other materials across each site. As a result, no confirmed losses of individual plants occurred throughout the project duration. However, potential loss of one (1) Santa Susana tarplant seedling may have accidentally occurred at CTL1, as discussed in the Vegetation Impacts section below.

Wildlife Observations and Relocations. Many of the birds observed during the pre-construction surveys (listed in Table 4 above) were observed throughout the duration of the project, in addition to American goldfinch, dark-eyed junco and yellow-rumped warbler.

Amphibians and reptiles observed throughout the duration of the project included two (2) western whiptails at CTL1, numerous western fence lizards and side-blotched lizards, California tree frog, gopher snake, and alligator lizard (1 individual captured and relocated to woodland habitat near the SSFL entrance). No coast horned lizards were observed throughout the duration of the project despite repeated surveys in suitable habitat areas (dry, scrubby or rocky areas). One (1) silvery legless lizard was allegedly captured by project staff on October 6, 2010 beneath the oak tree duff layer at AP/STP-1F. According to project staff, the individual was unharmed and was relocated to beneath an adjacent oak tree, approximately 75 feet to the southwest. Several discussions were previously conducted with project staff on the potential presence of silvery legless lizard in oak woodlands at SSFL, and their morphological characteristics (including viewing of color photographs). In particular, discussions were conducted on October 5, 2010, and then again on October 7, 2010 when the project biologist was onsite to conduct a follow-up survey of the alleged legless lizard sighting location. On this day, it was reiterated that a qualified biologist should be the individual to capture and relocate special-status species such as silvery legless lizard, even if the biologist is not immediately

available. If such an instance occurs, work activities should be directed elsewhere until the biologist arrives. No additional silvery legless lizards were found during the October 7, 2010 survey, or throughout the remainder of the project.

Mammals observed throughout the duration of the project included pocket gopher, Audubon's cottontail, black-tailed deer (scat), coyote (scat), ground squirrel, and dusky-footed woodrat (including 1 adult and 1 juvenile adjacent to AP/STP-1F).

No evidence of any wildlife mortality or substantial disturbance to wildlife was observed throughout the duration of the project.

Vegetation Impacts. Vegetation removal activities were conducted and monitored during July and October 2010 according to the project plans, immediately prior to soil excavation activities. Where feasible, vegetation was trimmed to ground level to expose the sediment below, with the stumps of shrubs and trees left in place to allow for their regeneration subsequent to project activities. Notable vegetation impacts, protections, or observations of regeneration included the following:

- One (1) Santa Susana tarplant (SSTP) was possibly removed at CTL-1A, as the protective fencing was observed lying down and this individual was absent as of September 10, 2010. Upon discovery of its absence, project and Boeing staff were contacted on this day, and the requirement for protective measures was reiterated. However, this individual was a small seedling when it was initially observed and could potentially have desiccated from natural causes. The large, mature SSTP adjacent to it was unharmed. It is anticipated that this large plant will provide a substantial seedbank to naturally replace the one lost SSTP seedling. Therefore, potential loss of 1 SSTP is not considered substantial or significant.
- Four (4) coast live oaks were pruned of several live and dead limbs all under 3 inches in diameter at B1-2. Three (3) large burned and broken limbs on two (2) trees were pruned at AP/STP-1D and 1F, and two (2) 2-inch limbs were pruned from a tree overhanging the access route to AP/STP-1F. None of the pruning was significant enough to damage the health of the trees, and in some cases, may improve the health of these trees. All pruned limbs were side-cast into adjacent areas for addition to wildlife habitat. Shallow hand-excavation of topsoil measuring a maximum depth of 6 inches to 1 foot beneath the oak trees at B1-1, B1-2, and AP/STP-1A, 1D, and 1F was completed and jute netting was temporarily placed and soaked with water to protect any exposed roots. Clean backfill material was subsequently replaced beneath the oak trees, and the jute netting was replaced over the entire exposed slopes.
- Three (3) willows required removal, and one (1) willow required cutting to the ground level at the B1-2, but has since begun to sprout from its base. The remaining willow was protected in place.
- Mulefat plants located within the lower portion of B1-2 required removal to expose affected soils below. Removal activities included approximately 0.07 acres of mulefat thicket, or approximately 75 mulefat shrubs. Regeneration of several of these shrubs

from their bases was subsequently observed, and additional mulefat containerized plantings are planned at this location.

Revegetation Plan Implementation. According to the project's Revegetation Plan and Expert Panel Recommendations for Erosion Control Hydroseeding Methods, hydroseeding with a native seedmix and installation of containerized plantings were completed (and are ongoing) at appropriate locations within the ISRA Areas. As-built Revegetation Plans are currently being completed by WRA Environmental Consultants, documenting the final tally for total hydroseeded areas and total planting amounts and locations. In summary, hydroseeding materials included Flexterra High Performance-Flexible Growth Medium™ with a seed application of native grasses and shrubs known to commonly occur at SSFL on all exposed areas including chamise, black sage, bush mallow, purple sage (*Salvia leucophylla*), California brome (*Bromus carianthus*), California bush sunflower (*Encelia californica*), buckbrush (*Ceanothus cuneatus*), purple needlegrass (*Nassella pulchra*), deerweed, laurel sumac, and small fescue (*Vulpia microstachys*). Containerized plantings included approximately 159 mulefat, 328 coyote brush, 111 mugwort (*Artemisia douglasiana*), 450 creeping wild rye (*Leymus triticoides*), and 35 Mexican elderberry (*Sambucus mexicana*) plants, of which a majority of these plantings have been installed to date. The seedmix and container plants were chosen for their ability to provide both rapid colonization and sediment holding capacity, and for long-term shrubby cover. Ongoing monitoring of these planting areas are underway to ensure a high success rate, rapid recovery, and minimization of erosion, but are not required to obtain the success criteria described in the SAA based on their location outside of CDFG jurisdiction, and primary use only as an erosion control mechanism. Other Best Management Practices (BMPs) including straw wattles, earthen and gravel water bars, rock rip rap, silt fencing, and straw bales were also installed for erosion control purposes at appropriate locations.

Follow-up Site Visits – November & December 2010, and February 2011

Work activities for the each ISRA Area were completed at various times throughout the duration of the project, and follow-up site visits and inspections were subsequently conducted.

IEL-1. Follow-up survey activities were completed on November 2, 2010, subsequent to clean soil backfilled into the shallow excavation. Ornamental *Podocarpus* trees were preserved in place, and no sensitive issues were identified at this location.

AP/STP-1A, 1D, & 1E. Follow-up survey activities were completed on December 15, 2010. Notable observations included the following: hydroseeding was completed in all exposed areas, all oaks were preserved in place with evidence of the aforementioned pruning, and adjacent vegetated areas were intact. Wildlife observations at or near these sites included dark-eyed junco, western scrub jay, yellow-rumped warbler, red-tailed hawk, acorn woodpecker, black phoebe, California tree frog, and deer (tracks and scat).

CTL-1. Follow-up survey activities were completed on February 10, 2011, and included the following observations: The access road from Service Area Road was hydroseeded and a series of earthen and gravel waterbars designed to capture, filter and direct stormwater back into adjacent vegetated slopes were installed. Both CTL-1A and 1B were hydroseeded and a silt fence BMP was installed at its lower end. As stated above in the Revegetation Plan section, containerized plantings were installed throughout these ISRA Areas. A two-inch flexible hose

was installed, originating from the fire suppression water line along Service Area Road, and provides hand irrigation water. At the time of the survey, approximately 90 to 95 percent of the plantings appeared alive and supported new growth. A small amount of erosion was noted at its upper end with the creation of an 8-inch deep rill, which was later repaired with rock rip rap. As part of ongoing implementation of the Revegetation Plan and to further reduce any erosion potential, additional pinflags were placed to mark the locations of additional plants to be installed at this location.

B1. Follow-up survey activities were completed on February 17, 2011. Notable observations included the following: All SSTP were preserved in place; some of which were located on soil mounds with contoured edges. All of the areas were hydroseeded, and other BMPs included straw wattles, rock rip rap, silt fencing, in addition to a plastic-lined stormwater detention basin constructed in the flat, upper portion of B1-2. The basin's discharge pipe was placed between two oak trees, but in a location of fill material where no roots were expected or observed. Jute netting was also placed over the entire slopes along the lower slopes of B1-2. Pinflags were placed for future placement of containerized plants at both B1-1a and B1-2. Plummer's mariposa lily leaf sprouts were observed at their known locations, indicating that bulbs in the ground were left undisturbed and allowed to regenerate at several mounded locations. Numerous first year and adult white-crowned sparrows, dark-eyed juncos and California towhees were observed foraging in the hydroseeded areas.

Soil Borrow Area. Follow-up survey activities were completed on February 17, 2011. Notable observations included the following: Soil borrow activities were currently limited to approximately 70 percent of the entire borrow area, and it is anticipated that additional material will be excavated from this site upon initiation of future ISRA activities. The entire disturbed area was recontoured and hydroseeded for erosion control. Protective signage and flagging was still in place at the location of SSTP along the roadside. Species of note included deer (tracks), Bewick's wren, wrenit, California towhee, and white-crowned sparrow foraging at or near the borrow area.

Conservation Recommendations

Conservation recommendations previously provided to Boeing in the June 2010 Study and August 2010 Addendum were followed to the extent feasible, resulting in little or no impacts to sensitive biological resources. Based on discussions and pre-emptive adjustments to certain activities in the field, the following measures were followed and are recommended for future activities (if applicable):

- In addition to protective fencing around each special-status plant (or group of plants), a "no-excavation" buffer of at least 1 foot wide outside the fenced area should be implemented to ensure that the fence posts do not fall over, and to further ensure the root zone of each plant is unaffected.
- Careful placement and securing of water hoses are necessary to ensure that the hoses are not inadvertently dragged across areas where special-status plants may occur. Workers need to continually view and/or adjust their intended path before moving a hose into place to ensure the path is clear of any protected resources.

- If encountered, sensitive wildlife species should be given sufficient space and time to exit the work area to ensure that mortality is avoided. A qualified biologist should be immediately contacted to correctly identify, photograph and relocate the species to a suitable nearby habitat area. As stated above, if a biologist is not immediately available, work activities should be directed elsewhere until the biologist arrives.
- If nesting birds are present within 300 feet of the proposed work area, work activities may require postponement until it is determined that the birds have fledged the nest.
- A qualified biologist or restoration specialist familiar with native plants and their care should participate in the restoration effort to ensure its success.

Should you have any questions regarding our survey and monitoring results, please contact me at (805) 644-2220, ext. 12.

Sincerely,

PADRE ASSOCIATES, INC.



Chris Dunn
Project Manager/Biologist

Cc: Shelby Valenzuela, MWH Global

Attach: Appendix A. Photographic Documentation

APPENDIX A. PHOTOGRAPHIC DOCUMENTATION



Figure 1. View of B1-1A prior to ISRA activities. Photograph is toward the north, taken on July 15, 2010. Orange construction fencing in place for Santa Susana tarplant protection.



Figure 2. View of B1-1A subsequent to ISRA activities. Photograph is toward the north, taken on February 17, 2011. Site is hydroseeded, Santa Susana tarplants are present (marked by pink flagging) and BMPs are placed on hillside.



Figure 3. View of lower portion of B1-2, prior to ISRA activities. Photograph is toward the northeast, taken on July 2, 2010.

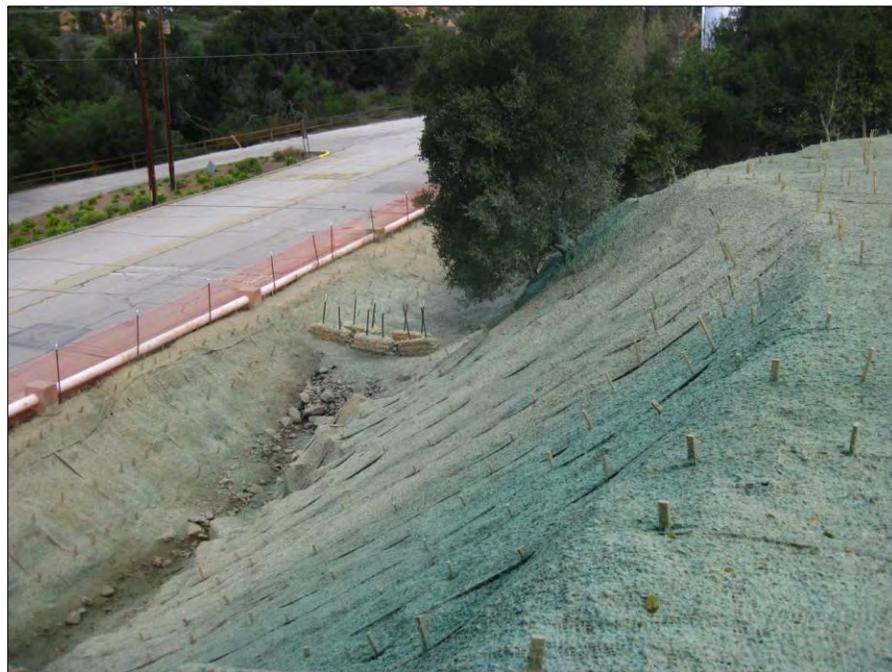


Figure 4. View of lower portion of B1-2, subsequent to ISRA activities. Photograph is toward the northeast, taken on February 17, 2011. Slopes are covered in jute netting and are hydroseeded.



Figure 5. View of upper portion of B1-2, prior to ISRA activities. Photograph is toward the north, taken on July 15, 2010. Orange construction fencing in place for Santa Susana tarplant protection.



Figure 6. View of upper portion of B1-2, subsequent to ISRA activities. Photograph is toward the northeast, taken on February 17, 2011. Site is hydroseeded and Santa Susana tarplants are present (marked by pink flagging).



Figure 7. View of CTL-1, prior to ISRA activities. Photograph is toward the north, taken on July 1, 2010.



Figure 8. View of CTL-1, subsequent to ISRA activities, including installation of containerized plants (marked by pinflags, which were subsequently removed), but prior to hydroseeding. Photograph is toward the north, taken on January 27, 2011.



Figure 9. View of Soil Borrow Area, prior to ISRA activities. Photograph is toward the east, taken on August 27, 2010.



Figure 10. View of Soil Borrow Area, subsequent to ISRA activities, including hydroseeding. Photograph is toward the east, taken on February 17, 2011.



Figure 11. View of AP/STP-1A prior to ISRA activities. Photograph is toward the north, taken on October 11, 2010.



Figure 12. View of AP/STP-1A subsequent to ISRA activities. Photograph is toward the north, taken on December 15, 2010.



Figure 13. View of AP/STP-1D prior to ISRA activities. Photograph is toward the north, taken on September 28, 2010.



Figure 14. View of AP/STP-1D subsequent to ISRA activities. Photograph is toward the northwest, taken on December 15, 2010.



Figure 15. View of AP/STP-1F prior to ISRA activities. Photograph is toward the southwest, taken on September 28, 2010.



Figure 16. View of AP/STP-1F subsequent to ISRA activities. Photograph is toward the northeast, taken on December 15, 2010.