Final waste load allocations for wet daily maximum concentrations of copper and nickel are stipulated as 31.0 and 958 µg/L, respectively. The daily maximum limit for copper is included in the permit. The TMDL-based daily maximum for nickel, 958 µg/L, was developed to protect aquatic life in the lower Calleguas Creek and Mugu Lagoon and it is greater than the Title 22-based MCL limit of 100 µg/L. Since the groundwater basin beneath the Arroyo Simi has municipal and domestic supply as an existing beneficial use, and Arroyo Simi has groundwater recharge as an intermittent beneficial use, the effluent limitation implemented must be protective of both groundwater recharge and the downstream aquatic life beneficial uses. Therefore, the 100 µg/L effluent limitation, which is protective of the beneficial uses of Arroyo Simi and the groundwater basin beneath it, has been implemented for nickel.

67. To prevent further degradation of the water quality of Los Angeles River and the Calleguas Creek (Arroyo Simi), and to protect its beneficial uses, mixing zones and dilution credits are not considered in derivation of the effluent limitations in this Order.

This determination is based on:

- Many of the beneficial uses stipulated are intermittent for Dayton Canyon Creek, Bell Creek and the Arroyo Simi. The discharges from SSFL in many cases provide a significant portion of the headwaters for these waterbodies, specifically for Dayton Canyon Creek and Bell Creek. Since there is little assimilative capacity for Dayton Canyon Creek and Bell Creek, a dilution factor is not appropriate and the final WQBEL should be a numeric objective applied end-of-pipe. The assimilative capacity for Arroyo Simi, which is the receiving water for storm water discharges from the northern boundary of SSFL, has not been evaluated and consequently no dilution has been given for discharges to that receiving water.

- The discharge may contain the 303(d) listed pollutants that are bioaccumulative such as metals. These pollutants, when exceeding water quality criteria within the mixing zone, can potentially result in tissue contamination of an organism directly or indirectly through contamination of bed sediments with subsequent incorporation into the food chain. The SIP, section 1.4.2.2.B. states that the "Regional Board shall deny or significantly limit a mixing zone and dilution credit as necessary to protect beneficial uses..." It continues that "such situations may exist based upon the quality of the discharge... or the overall discharge environment (including ... potential for bioaccumulation)."

68. The Discharger may provide the information needed by the Regional Board to make a site-specific determination on allowing a mixing zone, including the calculations for deriving the appropriate receiving water and effluent flows, and/or the results of a mixing zone study. Upon receiving such data, the Regional Board will re-evaluate its determination for the need to incorporate dilution credits and will revise the effluent limitations as necessary.

Reasonable Potential Analysis

69. Discharges from the engine test stands, which generated wastewater, had not been regulated independently prior to Order R4-2004-0111. These discharges did not have specific monitoring requirements or effluent limitations. Order R4-2004-0111, in an effort to collect the data required to complete a reasonable potential analysis, includes monitoring requirements for discharges from the engine test stands and from the sewage treatment plants for priority pollutants. The subsequent Orders (R4-2006-00008 and R4-2006-0036) included effluent limitations for discharges from the engine test stands and the sewage treatment plants.

69. 40 CFR section 122.44(d)(1)(i) and (ii) require that each toxic pollutant be analyzed with respect to its reasonable potential when determining whether a discharge (1) causes, (2) has the reasonable potential to cause, or (3) contributes to the exceedance of a receiving water quality objective. This is done by conducting a reasonable potential analysis (RPA) for each pollutant. In performing the RPA, the permitting authority uses procedures that account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, and the sensitivity of the test species to toxicity testing (when evaluating whole effluent toxicity). Because of effluent variability, there is always some degree of uncertainty in determining an effluent's impact on the receiving water. The SIP addresses this issue by suggesting the use of a statistical approach.

Order R4-2004-0111

70. Section 1.3 of the SIP requires that a limit be imposed for a toxic pollutant if (1) the maximum effluent concentration (MEC) is greater than the most stringent CTR criteria, (2) the background concentration is greater than the CTR criteria, or (3) other available information. These three criteria are routinely referred to as triggers. For the pollutants on the 303(d) list, which have been present in the effluent during past monitoring events, effluent limitations derived using the CTR criteria will be imposed in the permit.

    The first two triggers were evaluated using the California Permit Writers Training Tool (CAPWTT). While on contract with the State Board, Scientific Applications International Corporation (SAIC) developed this software to determine RPAs and, when reasonable potential exists, calculate the WQBELs, following procedures in the SIP. The third trigger is evaluated by the permit writer utilizing all other information available to determine if a water quality-based effluent limitation is required to protect beneficial uses.

71. RPAs were performed for each of 126 priority pollutants for which effluent data were available. The basis for each RPA determination is identified in the attached Fact Sheet, which is part of this Order. The input data for the RPAs were provided in the Self-Monitoring Reports submitted by the Discharger. One RPA was performed for discharges from Outfalls 001 and 002, which are composed of treated wastewater, water from the groundwater treatment systems, excess reclaimed water, water from the engine test stands, and storm water. Four analytes had reasonable potential to exceed

WQBELs: copper, lead, mercury, and TCDD. Three of these analytes (copper, lead, and mercury) had effluent limitations in the previous order (Order No. 98-051).

The Discharger also submitted data for the receiving water associated with discharges from Outfalls 001 and 002. This data was collected using elevated detection limits and hence several other constituents had reasonable potential. The constituents are 2,4,6-trichlorophenol, 2,4-dinitrotoluene, alpha-BHC, bis (2-ethylhexyl) phthalate, N-nitrosodimethlyamine and pentachlorophenol. Effluent limitations for these constituents have also been included in this Order.

Since perchlorate has been detected above the Department of Health Services action level in storm water runoff from the facility and it has been detected in the influent to some of the groundwater treatment systems, SIP RPA Trigger 3 and BPJ have been used to establish reasonable potential for it to be present in discharges from the site via Outfalls 001 and 002. Consequently an effluent limit for perchlorate has been included in this Order for these discharges. Further, since perchlorate is not a naturally occurring pollutant and its presence in the receiving waters is the result of operations at the facility, the effluent limitation was developed based on anti-degradation grounds (State Board Res. No. 68-16 and 40 CFR § 131.12). The effluent limitation was therefore set at 6 µg/L, which would prevent the degradation of receiving waters and maintain and protect receiving water quality. Effluent limitations for a number of volatiles, which were included in the current Order and are believed to be present in the groundwater contaminant plume, have also been included in this Order.

Discharges from Outfalls 003 through 007 are storm water runoff only. Daily maximum and monthly average limitations for storm water were included in Order No. 98-051. This Order does not include monthly average limitations for priority pollutants in storm water only discharges since storm events are infrequent and often occur less than once per month during the rainy season. This is consistent with permits adopted by the Regional Board for storm water discharges only.

A second statistical analysis using CAPWTT was completed for discharges of storm water only from locations 003, 004, 005, 006, and 007. This analysis yielded a positive RPA for five analytes: cadmium, copper, cyanide, mercury, and TCDD. Cyanide was detected only once during the period evaluated at a concentration of 5.8 micrograms/liter (µg/L). That detection triggered the reasonable potential since it exceeds that calculated average monthly effluent limit (AMEL). However, the discharges evaluated are storm water only discharges, which do not have monthly average limitations. When the maximum effluent concentration (MEC) of 5.8 µg/L is compared to the maximum daily effluent limit (MDEL) the MEC is less than the MDEL. Consequently, Order R4-2004-0111 does not include an effluent limit for cyanide in the storm water only discharges. CTR-WQBELs for cadmium copper, mercury and TCDD have been included in this Order. The previous order (Order 98-051) included effluent limitations for all of these analytes except TCDD. The statistical analysis did not indicate that antimony or thallium had reasonable potential. However, Order 98-051 included limitations for these analytes (MCL) from Title 22 from the Basin Plan since groundwater recharge is an intermittent beneficial use and the groundwater basin has an existing municipal and domestic supply beneficial use. The MCL for these constituents is more stringent than the CTR

limitations. The compliance history reveals that the effluent limit for antimony (6 µg/L) was exceeded at Outfalls 005 and 007 in 1999 and the limit for thallium (2 µg/L) was exceeded at Outfall 005 on March 8, 2000. Hence, limitations for these constituents have also been included, since reasonable potential does exist for the applicable limit to be exceeded.

The effluent limitations included in order R4-2004-0111 and subsequent updates thereto (R4-2006-0008 and R4-2006-0036) for the analytes with a positive statistical or best professional judgment RPA are the most stringent of the limit included in Order 98-051, and the applicable CTR criteria which include the freshwater aquatic life criteria, and the human health criteria for consumption of organisms only.

72. As set forth above, Section 1.3 of the State Board's State Implementation Plan (SIP) establishes a stepwise procedure for determining which toxic pollutants require water quality-based effluent limitations in conformance with 40 C.F.R. § 122.44(d). This stepwise procedure for toxic pollutants is called a reasonable potential analysis. The SIP's reasonable potential analysis applies to water quality standards for priority pollutants, whether promulgated by USEPA or established as water quality objectives by the Regional Board. Steps 1 through 6 establish an analytical procedure for requiring water quality-based limitations based solely on discharge and ambient receiving water data. Except as noted in Finding 73, reasonable potential for toxic pollutants regulated by Order R4-2004-0111 and subsequent updates was determined using the analytical procedure in Steps 1 through 6 of SIP section 1.3 as explained in Finding 71 and the Fact Sheet.

73. Step 7 of SIP Section 1.3 recognizes that in certain instances a rote, mathematical analysis of the data will not be sufficient to protect beneficial uses. Step 7 therefore reserves for the Regional Board the obligation to "review other available information to determine if a water quality-based effluent limitation is required, notwithstanding the above analysis in *Steps 1* through *6*, to protect beneficial uses." Among the factors the State Board identifies as relevant to the Step 7 analysis are: the facility type, discharge type, and potential toxic impact of the discharge. With respect to the Facility, the Regional Board finds sufficient, unusual circumstances to require a water quality-based effluent limitation for trichloroethylene (TCE). Data and testimony indicate that approximately 530,000 gallons of TCE were released to the soil and groundwater at the Facility. The tremendous volume of TCE released at the site warrants significant scrutiny. While recent monitoring data do not show TCE in surface water discharges, scouring from large storm events may release soils with adsorbed TCE. The large volumes of TCE in scoured soils may become chemically available in the surface water runoff and cause or contribute to an exceedance of the water quality standard. In addition, the existing monitoring data has been collected far downstream from on-site sources. The data may not reliably indicate the presence of TCE in waters of the United States because the turbid conditions may have volatilized the TCE before it reached existing monitoring points (Outfalls 001 and 002). Further, contamination is spotty and not completely characterized; pathways are not always predictable and are not fully characterized; and the site is in a hilly environment with uncertain pathways and seeps which could possibly lead to surfacing of water with contamination that cannot be predicted. Finally, TCE is a probable carcinogen that can cause skin rashes on contact,

and when ingested has been associated with liver and kidney damage, impaired immune system function, and in large volumes unconsciousness, impaired heart function, or death. Considering the toxic nature of TCE and that past practices at the site released extraordinary volumes of TCE into the environment that can leach into surface water through the scouring from storm events, and further considering that the existing monitoring data may not be representative of direct discharges to waters of the United States since the data were collected downstream of the initial discharge, the Regional Board has determined that a water quality-based effluent limitation for TCE is necessary to protect beneficial uses.

74. Order R4-2004-0111 included eleven new compliance points. These compliance points mark the location of engine test operations, onsite sewage treatment plants, and three new storm water monitoring locations where the associated discharges enter waters of the United States and two discharges from ponds located near the boundary of the developed portion of the site. The associated operations and outfalls for the new compliance points are listed in Finding 29.

75. For pollutants or discharges that lacked effluent data, interim requirements, as described below, were assigned. For these pollutants, the Discharger must submit to this Regional Board effluent concentration data, so that complete reasonable potential analyses can be performed and the need for effluent limitations can be determined.

Pollutants that lacked sufficient data to do RPAs are subject to interim monitoring requirements.

76. Interim requirements were developed according to the following:

- Interim requirements in the form of monitoring were prescribed for constituents with no monitoring data or with "non-detectable" (ND) data, where all of the reported detection limits were greater than or equal to the CTR criterion. Monitoring is required for priority pollutants and emergent chemicals in discharges from the sewage treatment plants and the engine test stands.

- No interim monitoring requirements or limitations were prescribed for constituents whose highest monitoring data points or lowest detection limits (in case of ND) were below their respective CTR criterion.

77. For some pollutants, including aldrin, alpha-BHC, chlordane, DDT, dieldrin, heptachlor, heptachlor epoxide, several PAHs, PCBs, TCDD equivalents, and toxaphene the applicable water quality objectives are below the levels that current analytical techniques can measure. Reasonable potential analyses have been completed on each of these constituents and two of them had reasonable potential: alpha-BHC and TCDD equivalents. The MEC detected for TCDD exceeded the CTR criterion and the detection limits for alpha-BHC in the receiving water and the effluent exceeded the criterion.

78. For 303(d) listed pollutants, the Regional Board plans to develop and adopt TMDLs, which will specify WLAs for point sources and LAs for non-point sources, as appropriate.

Following the adoption of TMDLs by the Regional Board, NPDES permits will be issued with effluent limitations for water quality based on applicable WLAs. In the absence of a TMDL, effluent limitations for 303(d) listed pollutants for which RPA indicates a reasonable potential, will be established for (1) concentration based on the most stringent applicable CTR criterion and/or Basin Plan objective, and (2) mass emission based on the maximum discharge flow rate and concentration limitation.

79. As such, water quality objectives/criteria specified in the Basin Plan, the CTR, or the effluent limitations from the existing permit were used to set the limitations for pollutants that are believed to be present in the effluent and have reasonable potential of exceeding the water quality criteria. Other pollutants may only be monitored to gather data to be used in RPAs for future permit renewals and updates.

R4-2006-0008

80. After the adoption of Order R4-2004-0111, the Discharger collected data at most of the new compliance locations specified in the Order. This Order (R4-2006-0008) amends Order R4-2004-0111 and includes effluent limitations for the constituents that have, as a result of the monitoring and compliance sampling, demonstrated reasonable potential (RP).

81. Discharges from Outfalls 011 and 018 were evaluated with discharges from Outfalls 001 and 002. Outfalls 011 and 018 are the Perimeter Pond and the R-2 Pond Spillway, respectively. Discharges from these outfalls receive no additional treatment prior to exiting the site at Outfalls 001 and 002. However, additional storm water runoff which may also transport site contaminants will enter the streambed and contribute flow after the discharge exits Outfalls 011 and 018 and prior to it passing Outfalls 001 and 002, respectively. RP at these locations using only the data collected from August 20, 2005 through May 5, 2005 was evaluated using an excel spreadsheet. This analysis yielded statistical reasonable potential for the following priority pollutants: copper, lead, mercury, and TCDD. BPJ was used to establish effluent limitations for all other priority pollutants that have reasonable potential at Outfalls 001 and 002.

The Technical Support Document (TSD) for Water Quality-based Toxics Control (EPA/505/2-90-001) methodology for evaluating RP was used for all other constituents of concern (Page 53, Box 3-2). This evaluation resulted in statistical RP for iron, manganese, settleable solids, MBAS, TSS, perchlorate, nitrate +nitrite as Nitrogen, oil and grease, sulfate, BOD, and total dissolved solids. Effluent limitations for barium, fluoride, residual chlorine and chloride were retained after the completion of the BPJ analysis.

Storm Water Outfalls. Outfalls 003 through 007 had a robust data set to evaluate prior to the adoption of Order R4-2004-0111. Outfall 008 was a monitoring location for perchlorate and had no data for other priority pollutants. Outfalls 009 and 010 are new storm water compliance points and they had no data available prior to August 2004. The data collected at Outfalls 008 through 010 indicates that the discharges are very similar to those observed at the other storm water locations (Outfalls 003 through 007). Therefore, the analyses were combined and one evaluation was completed for all storm water only discharges (Outfalls 003 through 010).

The data yielded statistical RP for the following priority pollutants: copper, lead, mercury, and TCDD. Historical monitoring data, effluent violations, and site history were incorporated during the BPJ analysis, which resulted in establishing effluent limitations at Outfalls 008 through 010 consistent with those at Outfalls 003 through 007.

RP for constituents of concern in addition to the priority pollutants was also evaluated. Statistical RP exists for total suspended solids, perchlorate, boron, sulfate, total dissolved solids, oil and grease, and nitrate + nitrite as nitrogen. No new data was available for fluoride. Effluent limitations for chloride and fluoride are included based on BPJ.

82. Engine Test Stands. Wastewater data collected at the engine test stands Outfalls 012 through 014 from August 20, 2004 through March 30, 2005, was evaluated for reasonable potential. During this time discharges only occurred at Outfall 012. The RPA completed using the SIP methodology revealed reasonable potential of the wastewater for priority pollutants including copper, lead, mercury and TCDD. The analysis for other chemicals of concern was completed as per the TSD. The constituents with statistical RP are oil and grease, settleable solids, suspended solids, 1,4-dioxane, total petroleum hydrocarbons, naphthalene, tertiary butyl alcohol and ethylene dibromide. Effluent limitations for these constituents were therefore included in Order R4-2006-0036. Effluent limitations for total dissolved solids and for perchlorate were retained based on BPJ.

83. Sewage Treatment Plants. The sewage treatment plants, Outfalls 015 through 017, were evaluated and yielded statistical RP for cadmium, chromium III, copper, mercury, nickel, TCDD, MBAS, total suspended solids, perchlorate, BOD, oil and grease, total residual chlorine, total coliform, and nitrite as nitrogen.

R4-2006-0036

84. Discharges from Outfalls 001, 002, 011 and 018 flow to Bell Creek a tributary of the LA River. The TMDL for metals in the Los Angeles River assigned WLAs to all point source discharges to LA River and all upstream reaches and tributaries (including Bell Creek and tributaries to Bell Creek). Effluent limitations for cadmium, copper, lead, zinc, and selenium at the aforementioned outfalls are based on WLAs established by the TMDL or existing effluent limitations, whichever are more protective. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls.

85. The storm water discharges (Outfalls 003 through 010) did not have reasonable potential for zinc. Outfalls 003 through 007, 009, and 010 flow to Arroyo Simi, a tributary to Calleguas Creek. However, discharges from Outfall 008 flow to the LA River, which has the LA River Metals TMDL that provides a WLA for zinc. That WLA has been incorporated as an effluent limitation at Outfall 008 only. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which were also included for this outfall.

86. Rocket Engine Test Stands (Outfalls 012 through 014). Discharges from Outfalls 012 through 014 exit the site via tributaries to Bell Creek. The metals that have TMDL WLAs

that do not have reasonable potential at these outfalls are cadmium, selenium and zinc. Effluent limitations for these constituents are included based on the TMDL. The Los Angeles River Nutrient TMDL developed WLAs for ammonia-N, nitrate-N, and nitrite-N. Daily maximum effluent limitations for these constituents are also applicable and included for discharges from these locations. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls.

87. Sewage Treatment Plants (Outfalls 015 through 017). Discharges from Outfalls 015 through 017 also exit the site via tributaries to Bell Creek. The Metals TMDL resulted in new WLAs for lead and selenium and a wet weather discharge WLA for cadmium. The LA River Nutrient TMDL requires WLAs for ammonia-N, nitrate-N, and nitrite-N, which are included for these outfalls

Remand

88. On December 13, 2006, in Order WQ 2006-0012, the State Board concluded that the compliance locations at Outfalls 001 and 011 were duplicative. It further concluded that compliance locations at Outfalls 002 and 018 were also duplicative. The order required that one set of the compliance points (outfalls with numeric effluent limitations) be deleted.

Figure 2 shows the Outfall locations as specified in Order R4-2004-0111 and its subsequent revisions. Outfall 011 is located at the Perimeter Pond. The Perimeter Pond is the final collection basin near the boundary of the developed property that storm water runoff collects prior to entering the undeveloped portion of the property and subsequently exiting the site after passing through Outfall 001.

Outfall 018, the R2-Pond Spillway, is located near the western edge of Area II. The R2 Pond collects storm water runoff from Areas II and III. Storm water runoff entering the R2 Pond has traversed several RCRA areas of concern, each of which have a host of contaminants of concern currently being investigated. The storm water runoff entering the R-2 Pond exits the pond via the R-2 Pond Spillway and travels southward into the undeveloped portion of the site through Outfall 002 prior to exiting the property.

The developed portion of the site has a number of areas of concern that are included in the RCRA assessment and cleanup proceeding with DTSC oversight. Each of these areas has the potential to contribute contaminants to the storm water runoff traversing it. Since Outfalls 011 and 018 are near the boundary of the developed portion of the site, the Regional Board has decided to retain them as compliance points with numeric effluent limitations. However, runoff from a couple of areas of concern may not be captured in monitoring which occurs at these outfalls. Therefore, the Discharger will be required to continue monitoring at Outfalls 001 and 002.

A "benchmark" is a water quality based effluent limit or a performance based limit that is used to evaluate the performance of BMPs with regard to the removal of contaminants present in the discharge. In this permit, the benchmarks are established based on water quality based effluent limitations. Exceedance of a benchmark triggers an evaluation of the BMPs implemented at the site. The evaluation may determine that the BMPs

require augmentation, upgrade, or replacement. If so, the Discharger must update the BMP Compliance Plan, secure the required approval from the Executive Officer, and implement the required upgrades. Section II.C.7., that follows includes the requirements for implementing the BMP Plan for compliance with the benchmarks specified in this permit.

The numeric effluent limitations from Outfalls 011 and 018 will be used as benchmarks to evaluate the efficiency of BMPs implemented at Outfalls 001 and 002. This data will also provide information about the concentration of the contaminants entering the closest residential area and entering Bell Creek.

R4-2007-0055

89. A reasonable potential analysis was completed for data collected through May 22, 2006. The analysis did not result in the inclusion of any new constituents with effluent limitations in this Order.

90. The Topanga Fire resulted in significant alterations to the site. The exposure of the surface soils with no vegetative cover to runoff has increased the potential for the transport of those surface soils and associated contaminants offsite as a result of the fire. The fire created runoff conditions at SSFL over which the Discharger has limited control. Over 70 percent of the SSFL burned with significant areas denuded of vegetation, making much of the steep terrain highly erodible. Boeing hydomulched upwards of 800 acres and installed erosion control devices throughout much of the SSFL after the fire which occurred on September 28, 2005, and prior to the January 19, 2006 Board Hearing.

After the fire Boeing immediately began efforts to replace the BMPs that were destroyed. Many of the drainage areas were vacuumed to remove accumulated ash. The Discharger hydromulched in excess of 800 acres onsite and installed erosion control devices throughout much of the SSFL site prior to the January 19, 2006 Board Meeting. BMPs implemented prior to the fire were typical of those routinely used at construction sites to retard the transport of sediment (silt fences, plastic sheeting, etc). In most cases, the BMPs implemented after the fire were designed to slow flows (i.e. using underdrain systems) and to treat specific contaminant groups (i.e. metals) using bags filled with carbon or vermiculite. Most recently, the BMPs implemented have been designed to treat the runoff from a storm with the flow of 2.3 inches of rain.

On May 24, 2007, Boeing submitted to the Regional Board the *Phase 2 Post-Fire Vegetation Recovery Assessment Report* prepared for Geosyntech Consultants by Western Botanical Services, Inc. The report assessed the status of and time to recovery of chaparral and scrub at the project site subsequent to the Topanga Fire. The executive summary of the report asserts that chaparral and scrub represent the dominant vegetation types at SSFL and that these plant communities represent an important natural vegetation-based means of erosion control at the site. It further states that the "perennial plant cover differed by significantly more than 30 percent between burned and unburned transects, total vegetative cover differed by significantly greater

than 20 percent cover and ground cover differed by significantly more than 30 percent cover." The executive summary also states that the burned chaparral and scrub vegetation will likely recover to near pre-fire conditions within five to ten years.

The report also includes a section titled *Chaparral Recovery after Fire.* The section includes summaries of other studies completed on chaparral. Several studies (Guo 2001, Grace & Keeley 2006, Keeley & Keeley 1981, Horton & Kraebel 1955, Robi Chaud et al 2000) concluded that the total vegetative cover is generally high in the first two years following a fire: reported values are from 11 to 85 percent. The report estimates that between March 26 and April 12, 2007, the mean total vegetative cover within the burned areas is 46.6 percent.

91. Discharges from Outfalls 012 (Alpha Test Stand) and 013 (Bravo Test Stand) flowed to Silvernale Pond, into R-2 Pond, which discharges at Outfall 018 and ultimately to Outfall 002. Discharges from Outfall 014 (APTF) flowed to R-1 Pond, into Perimeter Pond, which discharges at Outfall 011, and ultimately to Outfall 001. The ROWD submitted on February 21, 2007, stated that all rocket engine testing activities have ceased and will not recur. Order R4-2006-0036 included effluent limitations for discharges from the rocket engine test stands and required monitoring during testing events. Those requirements will not be included in the current Order (R4-2007-0055).

However, years of testing have resulted not only in groundwater contamination but in surface and subsurface soil contamination. These contaminants may be mobilized by storm water traversing these areas. Therefore, this Order includes a requirement to implement BMPs around these areas and to monitor the storm water runoff for contaminants of concern. The previous effluent limitations for discharges from the engine test stands provide benchmarks, to evaluate the effectiveness of the BMPs with controlling the transport of contaminants from the areas.

92. Sewage Treatment Plants (Outfalls 015 through 17). The most recent ROWD states that all discharges from Outfalls 015 through 017 have ceased. The basins at the facilities will continue to be used for the collection of sewage. The collection tanks at the sewage treatment plants have sewage level measuring instruments and alarms. Routine removal and hauling of the sewage takes place before the sewage levels reach the levels that would trigger the alarms. Should the amount of sewage in the holding tanks reach the level which would trigger the alarms, the sewage is transferred to additional tanks onsite and sewage hauling contractors are mobilized to move the sewage for offsite treatment and disposal

This protocol alleviates discharges from this area. Thus requirements for monitoring at these locations will be eliminated.

93. The discharge from SSFL (Outfalls 001 through 018) is primarily storm water runoff which may contain mobilized contaminants from the site. Outfall 019 will discharge treated groundwater from onsite cleanup operations. Discharges from Outfall 019 will enter the drainage way upstream of Outfall 011. The size of the site and the volume of storm water runoff generated presents challenges with treating the entire volume of rainfall. The BMPs for Outfalls 003 through 007 and 010 are designed to treat the storm water runoff

generated from a 2.3 inch storm which represents the 85th percentile of the 1-year 24-hour storm event using the Los Angeles County Department of Public Works (LACDPW) estimation models.

94. Over the last two years, the Regional Board has been working with the Southern California Coastal Water Research Project (SCCWRP) and a cross-section of stakeholders in the region known as the Design Storm Project Steering Committee to evaluate potential design storms in terms of capturing storm water runoff, achieving water quality standards, and implementability. A "design storm" is a specific size storm event used to plan for and design storm water controls. A draft report is scheduled for circulation in early September 2007, which will summarize the results of the first two years of the project; discuss the complexities of establishing a regional design storm; and set forth recommendations for additional technical studies, sensitivity analysis and modeling.

Any effort to develop a regional design storm requires that assumptions and generalizations are made. Regional Board staff anticipates that further work will be needed, before proposing a regional design storm policy or any site-specific design storm, in order to further explore these assumptions and generalizations; evaluate the efficacy of the design storm for different pollutants and land uses; refine the data used in modeling the water quality outcomes of potential design storms; and to consider policy with regard to incorporating design storms into permits.

Double Counting of Violations

95. In several cases; Order R4-2006-0008 and Order R4-2006-0036 included numeric effluent limitations downstream of a compliance point which also had numeric effluent limitations. Concerns were raised by the State Board regarding the potential for double counting violations. Following is a description of how the monitoring was configured which demonstrates that there was little potential for double counting of violations.

Specifically, discharges from Outfall 012 (Alfa Test Stand) had numeric effluent limitations. The discharge from Outfall 012 (rocket engine test firing) was monitored when it occurred. The samples were collected and a determination of compliance was made on that specific event. The discharged wastewater flowed through several RCRA Facility Investigation (RFI) sties included the Bravo Test Stand, Storable Propellant Area (SPA), and Alfa/Bravo Fuel Farm (ABFF) prior to mixing with other wastewater in the Silvernale Pond. At each of the RFI sites there is the potential for the discharged wastewater to pick up additional contaminants in the surface soils or subsurface soils. The Silvernale Pond is also an RFI site with contaminants present in the sediment. The mixed wastewater will sit in Silvernale until the level of wastewater present is enough to cause the pond to overflow. The flow from Silvernale traverses two other RFI sites prior to entering the R-2 Pond. There the flow from Silvernale, which is much different than the flow from Alfa Test Stand (Outfall 012) during a rocket engine test, and any other wastewater in R-2 Pond mixes. Discharges from R-2 Pond (Outfall 018) have effluent limitations. However, historically discharges from the ponds do not occur at the same time that rocket engine tests occur. Discharges from R-2 Pond have routinely occurred only after storm events. Since the discharge from Outfall 012 occurs in some cases months prior to discharges from Outfall 018 and since the discharges from Outfall 012

traverse several RCRA RFI sites where contaminants are present prior to entering the R-2 Pond (Outfall 018), there is little probability that "double counting" occurs at this location.

R4-2009-0058

96. The Discharger, as directed by the 2007 CDO (Order R4-2007-0056), assembled a panel of experts (Expert Panel) with experience in treating storm water flows utilizing engineered natural treatment systems (ENTS). The Expert Panel reviewed site conditions, modeled flow, contaminants of concern and evaluated the technologies applicable and the BMPs capable of providing the required treatment to meet the final effluent limitations. The panel initially evaluated site conditions and on April 30, 2008, issued a report entitled "Expert Panel Final Consensus Recommendation on a Site Specific Design Storm for the SSFL." The Expert Panel recommended a site specific design storm defined as either, 2.5 inches during a 24-hour period, or 0.6 inches in an hour, as measured at the Area IV rain gauge located at the SSFL. The design storm criteria have been used by the Discharger to size BMPs at the outfalls and to design the ENTs. The design storm has not been implemented in this Order as a mechanism to determine compliance with numeric effluent limitations.

97. On December 3, 2008, Tracy Egoscue, Executive Officer of the Regional Board, issued a California Water Code Section 13304 Order to perform interim/source removal action of soil in the areas of Outfalls 008 and 009 Drainage Areas to the Discharger. The Order directed the Discharger to cleanup and abate the waste that are discharging to waters of the State, minimize impacts to the streambed and adjacent habitat during the cleanup, protect the water quality during and after the cleanup, and restore the streambed and surrounding habitat following the cleanup.

98. On December 11, 2008, the Discharger submitted a new ROWD. Supplemental information was submitted on February 2, 2009, to complete the ROWD. This Order includes updates required as a result of the new ROWD, the California Water Code Section 13304 Order, and the new RPA conducted on data collected from August 2004 through December 2008.

99. The new RPA did not yield new constituents with reasonable potential at any of the current compliance locations.

Background and Rationale for Requirements.

100. The Regional Board developed the requirements in this Order based on information submitted as part of the application, through monitoring and reporting programs, and through special studies. The Fact Sheet, which contains background information and rationale for Order requirements, is hereby incorporated into this Order and constitutes part of the Findings for this Order. The Monitoring and Reporting Program (Attachment T) and all other attachments are also incorporated into this Order.

CEQA and Notifications

101. The Regional Board has notified the Discharger and interested agencies and persons of its intent to issue waste discharge requirements for this discharge and has provided them with an opportunity to submit their written views and recommendations.

102. The Regional Board, in a public hearing, heard and considered all comments pertaining to the discharge and to the tentative requirements.

103. This Order shall serve as a NPDES permit pursuant to Section 402 of the Federal Clean Water Act or amendments thereto, and shall take effect in accordance with federal law, provided the Regional Administrator, USEPA, has no objections.

104. Pursuant to California Water Code Section 13320, any aggrieved party may seek review of this Order by filing a petition to the State Board. A petition must be sent to the State Water Resources Control Board, Office of Chief Counsel, Attn: Elizabeth Miller Jennings, Senior Staff Counsel, 1001 I Street, 22nd Floor, Sacramento, CA 95814, within 30 days of adoption of this Order.

105. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) in accordance with the California Water Code, Section 13389.

IT IS HEREBY ORDERED that The Boeing Company (Santa Susana Field Laboratory), in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Federal Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

I. Discharge Requirements

A. Discharge Prohibition

1. Wastes discharged shall be limited to treated groundwater, fire suppression water, and storm water runoff, as proposed.

2. Discharges of water, materials, radiologic wastes, thermal wastes, elevated temperature wastes, toxic wastes, deleterious substances, or wastes other than those authorized by this Order, to the Arroyo Simi and tributaries to Calleguas Creek, to Dayton Canyon Creek, Bell Creek, and tributaries to the Los Angeles River, or waters of the United States, are prohibited.

B. Effluent Limitations

1. The pH of wastes discharged shall at all times be within the range 6.5 to 8.5.

2. The temperature of wastes discharged shall not exceed 86°F.

3. The discharge of an effluent from Outfall 018 with constituents in excess of the daily maximum limitations listed below is prohibited for storm water runoff. The discharge of an effluent from Outfall 011 and 019 when discharging together must demonstrate compliance with both the daily maximum and monthly average effluent limitations listed below. Storm water only discharges from Outfall 011 must demonstrate compliance with the daily maximum effluent limitations only.

Constituents	Units	Discharge Limitations Monthly Average	 Daily Maximum
Total suspended solids[1]	mg/L lbs/day[2]	15 20,016	45 60,048
BOD_5 20°C	mg/L lbs/day[2]	20 26,700	30 40,032
Oil and grease	mg/L lbs/day[2]	10 13,344	15 20,016
Settleable solids[1]	ml/L	0.1	0.3
Total residual chlorine	mg/L lbs/day[2]	---- ----	0.1 133
Total dissolved solids	mg/L lbs/day[2]	---- ----	950 1,270,000
Chloride	mg/L lbs/day[2]	---- ----	150 200,160
Sulfate	mg/L lbs/day[2]	---- ----	300 400,320
Barium[3]	mg/L lbs/day[2]	---- ----	1.0 1,330
Fluoride[3]	mg/L lbs/day[1]	---- ----	1.6 2135

[1] The effluent limitations for total suspended solids and settleable solids are not applicable for discharges during wet weather. During wet weather flow, a discharge event is greater than 0.1 inch of rainfall in a 24-hour period. No more than one sample per week need be obtained during extended periods of rainfall and a storm must be preceded by at least 72 hours of dry weather.

[2] The mass is calculated using the maximum permitted flow of 160 mgd for Outfalls 001 and 002. The flow used to calculate the mass for Outfalls 003 through 010 is 17.8 mgd. The flow used for Outfalls 012 through 014 was 0.004 MGD and the flow used for Outfalls 015 through 017 is 0.06 MGD. If the recorded flow is different the mass should be recalculated using the equation: Mass (lbs/day) = Flow (mgd) * 8.34 * concentration (mg/L).

© Thirty day average at pH = 7.9 and 20°C, when hourly samples are collected and composited or only one grab sample is collected. Analysis for the temperature and pH of the receiving water at the same time as the discharge would provide data for a site specific determination of the ammonia limit using Attachment H to the WDR. Shall there be no receiving water present, the pH and temperature of the effluent at the monitoring location shall be determined and reported.

® One hour average WLA at 7.9 pH and 20°C, applies if hourly samples are taken throughout the storm and each is analyzed. No single sample may exceed the 10.1 mg/L limit. Analysis for the temperature and pH of the receiving water at the same time as the discharge would provide data for a site specific determination of the ammonia limit using Attachment H to the WDR. Shall there be no receiving water present, the pH and temperature of the effluent at the end of pipe shall be determined and reported.

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Iron[3]	mg/L	----	0.3
	lbs/day[2]	----	400
Detergents (as MBAS)	mg/L	----	0.5
	lbs/day[2]	----	667
Nitrate + Nitrite-N	mg/L	----	8.0
	lbs/day[2]	----	10,700
Ammonia-N	mg/L	1.96©	10.1®
	lbs/day[2]	2,615	13,500
Nitrate-N	mg/L	----	8.0
	lbs/day[2]	----	10,700
Nitrite-N	mg/L	----	1.0
	lbs/day[2]	----	1,334
Manganese[3]	µg/L	----	50
	lbs/day[2]	----	66.7
Cyanide[3]	µg/L	4.3	8.5
	lbs/day[2]	5.7	11.3
Antimony[3]	µg/L	----	6.0
	lbs/day[2]	----	8.01
Arsenic[3,4]	µg/L	----	10
	lbs/day[2]	----	66.7
Beryllium[3]	µg/L	----	4.0
	lbs/day[2]	----	5.34
Cadmium[3, 4]	µg/L	2.0	4.0/3.1*β
	lbs/day[2]	2.7	5.34/4.14*β
Chromium (VI)[5]	µg/L	8.1	16.3
	lbs/day[2]	10.8	21.8
Copper[3, 4]	µg/L	7.1	14.0
	lbs/day[2]	9.5	18.7
Lead[3, 4]	µg/L	2.6	5.2
	lbs/day[2]	3.5	6.94
Mercury[3]	µg/L	0.05	0.10
	lbs/day[2]	0.07	0.13

[3] These discharge limitations are expressed as total recoverable.
[4] Concentrations correspond to a total hardness of 100 mg/L. For other conditions where total hardness exceeds 100 mg/L, the limitations can be calculated by following the instructions outlined in 40 CFR Part 131.
[5] The Discharger has the option to meet the hexavalent chromium limitations with a total chromium analysis. However, if the total chromium level exceeds the hexavalent chromium limitation, it will be considered a violation unless an analysis has been made for hexavalent chromium in replicate sample and the result reported is within the hexavalent chromium limitations.
* Effluent limit applies only during wet weather discharges. Wet Weather conditions occur between October and March.
β This effluent limit shall be deemed vacated at such time as Regional Board Resolutions R05-006 and R05-007 are vacated in compliance with a writ of mandate in the matter of Cities of Bellflower et al v. State Water Resources Control Board et al, Los Angeles Superior Court # BS101732. The Regional Board shall provide notice to the discharger of any such action.

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Nickel [3, 4]	µg/L lbs/day[2]	35 47	96 128
Selenium [3]	µg/L lbs/day[2]	4.1 5.5	8.2/5[#β] 10.9/6.67[#β]
Silver [3, 4]	µg/L lbs/day[2]	2.0 2.7	4.1 5.5
Thallium [3]	µg/L lbs/day[2]	---- ----	2.0 2.7
Zinc [3, 4]	µg/L lbs/day[2]	54 72	119 159
1,1-Dichloroethylene	µg/L lbs/day[2]	3.2 4.3	6.0 8.0
Trichloroethylene	µg/L lbs/day[2]	---- ----	5.0 6.7
Perchlorate	µg/L lbs/day[2]	---- ----	6.0 8.0
TCDD	µg/L lbs/day	1.4E-08 1.9E-08	2.8E-08 3.7E-08
2,4,6-Trichlorophenol	µg/L lbs/day	6.5 8.7	13.0 17
2,4-Dinitrotoluene	µg/L lbs/day	9.1 12	18.3 24
Alpha BHC	µg/L lbs/day	0.01 0.013	0.03 0.04
Bis(2-ethylhxyl)phthalate	µg/L lbs/day	---- ----	4.0 5.3
N-Nitrosodimethylamine	µg/L lbs/day	8.1 10.8	16.3 21.8
Pentachlorophenol	µg/L lbs/day	8.2 10.9	16.5 22
Radioactivity Gross Alpha Gross Beta	 pCi/L pCi/L	 ---- ----	 15 50
Combined Radium-226 & Radium-228	pCi/L	----	5.0
Tritium	pCi/L	----	20,000
Strontium-90	pCi/L	----	8.0

The limitations included in the table above are also benchmarks at Outfalls 001 and 002. The daily maximum and monthly average effluent limitations are benchmarks for Outfall 001 and the daily maximum effluent limitations are benchmarks for Outfall 002.

[#] Effluent limit applies only during dry weather discharges. Dry weather conditions occur from April through September.

4. The discharge of storm water runoff only from Discharge Nos. 003 through 010 with constituents in excess of the following limitations is prohibited:

Constituents	Units	Discharge Monthly Average	Limitations Daily Maximum
Oil and grease	mg/L lbs/day[2]	---- ----	15 2,227
Total dissolved solids	mg/L lbs/day[2]	---- ----	850 126,184
Total dissolved solids	mg/L lbs/day[2]	---- ----	950[6] 141,029
Chloride	mg/L lbs/day[2]	---- ----	150 22,268
Boron[3]	mg/L lbs/day[2]	---- ----	1.0 148
Sulfate	mg/L lbs/day[2]	---- ----	250[7] 37,113
Sulfate	mg/L lbs/day[2]	---- ----	300[6] 44,536
Fluoride	mg/L lbs/day[2]	---- ----	1.6 238
Nitrate + Nitrite-N	mg/L lbs/day[2]	---- ----	10[7] 1,485
Nitrate + Nitrite-N	mg/L lbs/day[2]	---- ----	8.0[6] 1,188
Ammonia-N (Outfall 008 only)	mg/L lbs/day	---- ----	10.1® 1,500
Nitrate-N (Outfall 008 only)	mg/L lbs/day	-- --	8.0 1,190
Nitrite-N (Outfall 008 only)	mg/L lbs/day	-- --	1.0 148
Selenium (Outfall 008 only)	µg/L lbs/day	---- ----	5[#β] 0.7[#β]
Zinc (Outfall 008 only)	µg/L lbs/day	---- ----	159*[β] 23.6*[β]
Perchlorate	µg/L lbs/day[2]	---- ----	6.0 0.89
Antimony[3]	µg/L lbs/day[2]	---- ----	6.0 0.89
Cadmium[3,4]	µg/L lbs/day[2]	---- ----	4.0/(3.1*[β (Outfall 008 only)]) 0.59/(0.46*[β (Outfall 008 only)])
Copper[3,4]	µg/L lbs/day[2]	---- ----	14.0 2.08
Mercury[3]	µg/L lbs/day[2]	---- ----	0.13 0.02

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Nickel[3]	µg/L	----	100[⊕]
	lbs/day[2]	----	14.9
Thallium[3]	µg/L	----	2.0
	lbs/day[2]	----	0.3
Lead[3]	µg/L	----	5.2
	lbs/day[2]	----	0.77
TCDD	µg/L	----	2.8E-08
	lbs/day[2]	----	4.2E-09
Chronic toxicity	TU_c	----	1[α]
Radioactivity			
Gross Alpha	pCi/L	----	15
Gross Beta	pCi/L	----	50
Combined Radium-226 &		----	
Radium-228	pCi/L	----	5
Tritium	pCi/L	----	20,000
Strontium-90	pCi/L	----	8

The effluent limitations in the table above serve as benchmarks, as defined in finding 88, paragraph five, for the storm water runoff from Outfalls 008 and 009, from November 1, 2007, through May 17, 2010.

5. Benchmarks for storm water at the former locations of Outfalls 012, 013, and 014 are:

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Oil and grease	mg/L	----	15
	lbs/day[2]	----	0.5
Total dissolved solids	mg/L	----	950
	lbs/day[2]	----	31.7
Total suspended solids	mg/L	----	45
	lbs/day[2]	----	1.5
Settleable solids	ml/L	----	0.3
Chloride	mg/L	----	150
	lbs/day[2]	----	5.0
Boron[3,7]	mg/L	----	1.0
	lbs/day[2]	----	0.03
Sulfate	mg/L	----	300
	lbs/day[2]	----	10
Fluoride	mg/L	----	1.6
	lbs/day[2]	----	0.05

[α] The chronic toxicity limit is effective at Outfalls 003 through 007, 009, and 010. The limit is included in the Calleguas Creek Toxicity TMDL.

Constituents	Units	Discharge Monthly Average	Limitations Daily Maximum
Nitrate + Nitrite-N	mg/L lbs/day[2]	---- ----	8.0 0.3
Ammonia-N	mg/L lbs/day	---- ----	10.1® 0.34
Nitrate-N	mg/L lbs/day	---- ----	8.0 0.27
Nitrite-N	mg/L lbs/day	---- ----	1.0 0.03
Cadmium	µg/L lbs/day	---- ----	3.1*[β] 0.0001*[β]
Selenium	µg/L lbs/day	---- ----	5#[β] 0.0002#[β]
Zinc	µg/L lbs/day	---- ----	159*[β] 0.005*[β]
Copper[3,4]	µg/L lbs/day[2]	---- ----	13.5 0.0004
Lead[3]	µg/L lbs/day[2]	---- ----	5.2 0.0002
Mercury[3]	µg/L lbs/day[2]	---- ----	0.10 0.000003
TCDD	µg/L lbs/day[2]	---- ----	2.8E-08 9.3E-12
Naphthalene	µg/L lbs/day[2]	---- ----	21 0.0007
Total petroleum hydrocarbons	µg/L lbs/day[2]	---- ----	100 0.003
Ethylene dibromide	µg/L lbs/day[2]	---- ----	50 0.002
Tertiary butyl alcohol 1,4-Dioxane	µg/L lbs/day[2] µg/L lbs/day[2]	---- ---- ---- ----	12 0.0004 3 0.0001
Perchlorate	µg/L lbs/day[2]	---- ----	6.0 0.0002

6. With the exception of Outfalls 001 and 002, in the event that an effluent limitation set forth above for a pollutant other than a radioactive material is exceeded and the Discharger presents within 30 days of the date of discovery documentation that (i) discharges from a solid waste management unit (unit) regulated by DTSC are causing or contributing to the violation, and (ii) the Discharger was in compliance with all applicable

[6] The limit applies to discharges from Outfall 008 only.
[7] The limit is applicable for discharges from Outfalls 003 through 007, 009 and 010 which flows to Calleguas Creek. It is not applicable at Outfall 008 which dicharges to Bell Creek and subsequently the Los Angeles River.

requirements of DTSC permits and corrective action requirements for the unit, and (iii) modifications to DTSC's permit or corrective action requirements are necessary to consistently comply with this Order, then the Discharger, DTSC, and Regional Board will work cooperatively to develop a schedule that is as short as possible to take appropriate actions under the RCRA corrective action requirements or permits, as appropriate, to ensure compliance with this Order. This Order may be reopened and modified, in accordance with applicable laws and regulations, or a Time Schedule Order issued to incorporate appropriate interim limitations while the appropriate actions are being taken under the RCRA corrective action requirements or permits.

C. Receiving Water Limitations

1. The discharge shall not cause the concentration of constituents in Arroyo Simi in the vicinity of the discharges, from Outfalls 003 through 007, 009, and 010, to exceed the following limitations:

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Chlorpyrifos	µg/L	---	0.02
Diazinon	µg/L	---	0.16
Chlordane	µg/L	---	0.001
4,4-DDD	µg/L	---	0.0014
4,4-DDE	µg/L	---	0.001
4,4-DDT	µg/L	---	0.001
Dieldrin	µg/L	---	0.0002
PCBs	µg/L	---	0.0003
Toxaphene	µg/L	---	0.0003

The discharge shall not cause any of the following conditions to exist in the receiving waters at any time:

a. Floating, suspended or deposited macroscopic particulate matter or foam;

b. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

c. Visible, floating, suspended or deposited oil or other products of petroleum origin;

d. Bottom deposits or aquatic growth; or,

e. Toxic or other deleterious substances to be present in concentrations or quantities which cause deleterious effects on aquatic biota, wildlife, or waterfowl or render any of these unfit for

human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. No discharge shall cause a surface water temperature rise greater than 5°F above the natural temperature of the receiving waters at any time or place.

3. The discharge shall not cause the following limitations to be exceeded in the receiving waters at any place within one foot of the water surface:

   a. The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units;

   b. Dissolved oxygen shall not be less than 5.0 mg/L anytime, and the median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation;

   c. Dissolved sulfide shall not be greater than 0.1 mg/L;

4. Toxicity limitations for discharges from Outfalls 001 through 014, 018, and Outfall 019:

   a. Acute Toxicity Limitation and Requirements

      1. The acute toxicity of the effluent shall be such that: (i) the average survival in the undiluted effluent for any three (3) consecutive 96-hour static or continuous flow bioassay tests shall be at least 90%, and (ii) no single test producing less than 70 % survival.

      2. If either of the above requirements (Section I.C.4.a.1) is not met, the Discharger shall conduct six additional tests over a six-week period. The discharger shall ensure that they receive results of a failing acute toxicity test within 24 hours of the close of the test and the additional tests shall begin within 3 business days of the receipt of the result. If the additional tests indicate compliance with acute toxicity limitation, the discharger may resume regular testing. However, if the results of any two of the six accelerated tests are less than 90% survival, then the Discharger shall begin a Toxicity Identification Evaluation (TIE). The TIE shall include all reasonable steps to identify the sources of toxicity. Once the sources are identified, the Discharger shall take all reasonable steps to reduce toxicity to meet the objective.

      3. If the initial test and any of the additional six acute toxicity bioassay test result in less than 70% survival, including the initial test, the Discharger shall immediately begin a TIE.

4. The Discharger shall conduct acute toxicity monitoring as specified in Monitoring and Reporting Program No. 6027.

b. Chronic Toxicity Limitation and Requirements:

1. This Order includes a chronic testing toxicity trigger defined as an exceedance of 1.0 TU_c in a critical life stage test for 100% effluent. (The monthly median for chronic toxicity of 100% effluent shall not exceed 1.0 TU_c in a critical life stage test.)

2. If the chronic toxicity of the effluent exceeds 1.0 TU_c, the Discharger shall immediately implement an accelerated chronic toxicity testing according to MRP No. 6027, Section IV.D. If the results of two of the six accelerated tests exceed 1.0 TU_c, the Discharger shall initiate a TIE and implement the Initial Investigation TRE Workplan. (see MRP No. 6027, Section IV.E.).

3. The Discharger shall conduct chronic toxicity monitoring as specified in MRP No. 6027.

4. The chronic toxicity of the effluent shall be expressed and reported in toxic units, where:

$$TU_c = \frac{100}{NOEC}$$

The No Observable Effect Concentration (NOEC) is expressed as the maximum percent effluent concentration that causes no observable effect on test organisms, as determined by the results of a critical life stage toxicity test.

5. Preparation of an Initial Investigation TRE Workplan

i. The Discharger shall submit a detailed initial investigation Toxicity Reduction Evaluation (TRE) workplan to the Executive Officer of the Regional Board for approval within 90 days of the effective date of this permit. The Discharger shall use EPA manuals EPA/600/2-88/070 (industrial) or EPA/833B-99/002 (municipal) as guidance or current versions. At a minimum, the TRE workplan must contain the provisions in Attachment C. This workplan shall describe the steps the Discharger intends to follow if toxicity is detected, and should include, at a minimum:

ii. A description of the investigation and evaluation techniques that would be used to identify potential causes and sources of toxicity, effluent variability, and treatment system efficiency;

iii. A description of the facility's methods of maximizing in-house treatment efficiency and good housekeeping practices, and a list of all chemicals used in operation of the facility; and,

iv. If a toxicity identification evaluation (TIE) is necessary, an indication of the person who would conduct the TIEs (i.e., an in-house expert or an outside contractor) (See MRP Section IV.E.3. for guidance manuals).

5. The discharge shall not cause a violation of any applicable water quality standard for receiving waters.

If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments, thereto, the Regional Board will revise and modify this Order in accordance with such standards.

D. Final Ambient WLAs for Pollutants in Sediment for Storm Water Dischargers

The following are the final ambient WLAs. They are measured as in-stream annual averages at the base of each subwatershed where the discharges are located.

The final WLAs must be achieved and become sediment limitations after the sampling indicates that the Discharger is able to comply with the final WLAs or at the end of the 20-year compliance schedule specified in the TMDL (March 24, 2026), whichever occurs first. In either event, the permit will be reopened at that time to include appropriate sediment limitations.

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Chlordane	µg/g	--	0.0033
4,4-DDD	µg/g	--	0.002
4,4-DDE	µg/g	--	0.0014
4,4-DDT	µg/g	--	0.0003
Dieldrin	µg/g	--	0.0002
PCBs	µg/g	--	0.12
Toxaphene	µg/g	--	0.0006

E. Interim Ambient WLAs for Pollutants in Sediment for Storm Water Dischargers

The following sediment interim WLAs are effective as sediment limitations from through June 26, 2014 (five years from the effective date of this permit).

Constituents	Units	Discharge Limitations Monthly Average	Daily Maximum
Chlordane	µg/g	--	0.0033
4,4-DDD	µg/g	--	0.014
4,4-DDE	µg/g	--	0.17
4,4-DDT	µg/g	--	0.025
Dieldrin	µg/g	--	0.0011
PCBs	µg/g	--	25.7
Toxaphene	µg/g	--	0.23

The implementation schedule for the TMDL (Resolution No. R4-2005-0010) provides for interim sediment limitations through March 24, 2026 (twenty years from the effective date of the Basin Plan Amendment).

II. Requirements

A. Pollution Prevention and Best Management Practices Plans

The Discharger shall develop, within 90 days of the effective date of this Order, the following plans. If necessary, the plans shall be updated to address any changes in operation and/or management of the facility. Updated plans shall be submitted to the Regional Board within 30 days of revision.

1. A *Storm Water Pollution Prevention Plan* (SWPPP) that describes site-specific management practices for minimizing storm water runoff from being contaminated, and for preventing contaminated storm water runoff from being discharged directly to waters of the State. The SWPPP shall be developed in accordance with the requirements contained in Attachment A and submitted to the Regional Board within 90 days of the effective date of this Order.

2. A *Best Management Practices Plan* (BMPP). The purpose of the BMPP is to establish site-specific procedures that will prevent the discharge of pollutants in non-storm water discharges. The BMPP shall be site-specific and shall cover all areas of the facility.

3. *Compliance Plan.* The interim sediment limitations stipulated in section I.E. of this Order for OC Pesticides and PCBs in sediment shall be in effect for a period not to extend beyond November 23, 2012. Thereafter, the Discharger shall comply with the limitations specified for OC Pesticides and PCBs in section I.D. in of this Order.

4. The Discharger shall develop and submit, within one year of the effective date of this Order, a compliance plan that will identify the measures that will be taken to reduce the concentrations of OC Pesticides and PCBs in

sediment at the base of the subwatershed discharging to Arroyo Simi. This plan must evaluate options to achieve compliance with the final sediment limitations within the deadline specified above.

5. The Discharger shall submit annual reports to describe the progress of studies and or actions undertaken to reduce the OC Pesticides and PCBs in the effluent and the sediment, and to achieve compliance with the limitations in this Order by the deadline specified above. The Regional Water Board shall receive the first annual progress report at the same time the annual summary report is due, as required in section VI. of the MRP.

6. *Pollutant Minimization Plan* (PMP). The purpose of the BMPP is to establish site-specific procedures that will prevent the discharge of pollutants in non-storm water discharges. The BMPP shall be site-specific and shall cover all areas of the facility.

   i. The Discharger shall develop a PMP to maintain effluent concentrations of OC Pesticides and PCBs at or below the effluent limitations specified in Receiving Water Limitations section I.C.1 and Interim Ambient Mass of Pollutants in Sediment for Storm water Dischargers specified in section I.E. of this Order. The PMP shall include the following:

      a. Annual review and monitoring of the receiving water, sediment in the receiving water, and the effluent for OC Pesticides and PCBs;

      b. Submittal of a control strategy designed to proceed toward the goal of maintaining effluent concentrations at or below the effluent limitation;

      c. Implementation of appropriate cost-effective control measures consistent with the control strategy;

      d. An annual status report that shall be sent to the Regional Water Board at the same time the annual summary report is submitted in accordance with section I.B of the MRP, and include:

         (i) All PMP monitoring results for the previous year;

         (ii) A list of potential sources of OC Pesticides and PCBs;

         (iii) A summary of all actions undertaken pursuant to the control strategy;

         (iv) A description of actions to be taken in the following year.

B. Pursuant to the requirements of 40 CFR 122.42(a), the Discharger must notify the Board as soon as it knows, or has reason to believe (1) that it has begun or expected to begin, to use or manufacture a toxic pollutant not reported in the permit application, or (2) a discharge of toxic pollutant not limited by this Order has occurred, or will occur, in concentrations that exceed the specified limitations in 40 CFR 122.42(a).

C. Compliance Determination

1. Compliance with single constituent effluent limitation – If the concentration of the pollutant in the monitoring sample is greater than the effluent limitation and greater than or equal to the reported Minimum Level (see Reporting Requirement II. C. of *M&RP)*, then the Discharger is out of compliance.

2. Compliance with monthly average limitations - In determining compliance with monthly average limitations, the following provisions shall apply to all constituents:

a. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, does not exceed the monthly average limit for that constituent, the Discharger has demonstrated compliance with the monthly average limit for that month.

b. If the analytical result of a single sample, monitored monthly, quarterly, semiannually, or annually, exceeds the monthly average limit for any constituent, the Discharger shall collect four additional samples as early as flow is available during the month. All five analytical results shall be reported in the monitoring report for that quarter, or 45 days after results for the additional samples were received, whichever is later.

When all sample results are greater than or equal to the reported Minimum Level (see Reporting Requirement II. C. of M&RP), the numerical average of the analytical results of these five samples will be used for compliance determination.

When one or more sample results are reported as "Not-Detected (ND)" or "Detected, but Not Quantified (DNQ)" (see Reporting Requirement II. C. of *M&RP*), the median value of these four samples shall be used for compliance determination. If one or both of the middle values is ND or DNQ, the median shall be the lower of the two middle values.

c. In the event of noncompliance with a monthly average effluent limitation, the sampling frequency for that constituent shall be increased to weekly and shall continue at this level until compliance with the monthly average effluent limitation has been demonstrated.

d. If only one sample was obtained for the month or more than a monthly period and the result exceed the monthly average, then the Discharger is in violation of the monthly average limit.

3. Compliance with effluent limitations expressed as a sum of several constituents – If the sum of the individual pollutant concentrations is greater than the effluent limitation, then the Discharger is out of compliance. In calculating the sum of the concentrations of a group of pollutants, consider constituents reported as ND or DNQ to have concentrations equal to zero, provided that the applicable ML is used.

4. Compliance with effluent limitations expressed as a median – in determining compliance with a median limitation, the analytical results in a set of data will be arranged in order of magnitude (either increasing or decreasing order); and

   a. If the number of measurements (n) is odd, then the median will be calculated as = $X_{(n+1)/2}$, or

   b. If the number of measurements (n) is even, then the median will be calculated as = $[X_{n/2} + X_{(n/2)+1}]$, i.e. the midpoint between the n/2 and n/2+1 data points.

5. Compliance with the pH limitation – If the receiving water pH downstream of the discharge, exceeds 8.5 pH units as a result of:

   a. high pH in the storm water, or
   b. elevated pH in the receiving water upstream of the discharge,

   then the exceedance shall not be considered a violation.

6. Compliance with the temperature limitation – If the receiving water temperature downstream of the discharge, exceeds 86°F as a result of:

   a. high temperature in the ambient air, or
   b. elevated temperature in the receiving water upstream of the discharge,

   then the exceedance shall not be considered a violation.

7. The Discharger shall comply with benchmarks and receiving water limitations through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the BMP plan and its components and other requirements of this Order including any modifications. The BMP plan and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of Water Quality Objectives or Water Quality Standards (collectively, Water Quality Standards) persist, not withstanding implementation of the BMP and its components and other requirements of this permit, the Discharger shall

assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

a. Upon a determination by either the Permittee or the Regional Board that discharges are causing or contributing to an exceedance of an applicable Water Quality Standard, the Discharger shall within 24 hours notify and thereafter submit a revised BMP compliance report (as described in the Monitoring and Reporting Program) to the Regional Board that describes the BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of Water Quality Standards. This BMP Compliance Report is due to the Regional Board 60 days after exceedance of a benchmark. The BMP Compliance Report shall include an implementation schedule along with descriptions and proposed installation locations of the upgrades or new BMPs. The Executive Officer at the Regional Board may require modifications to the BMP Compliance Report.

b. Submit any modifications to the BMP Compliance Report required by the Regional Board within 30 days of notification.

c. Within 30 days following the approval of the BMP Compliance Report, the Discharger shall revise the BMP Plan and its components and monitoring program to incorporate the approved modifications that have been and will be implemented; and implementation schedule, and any additional monitoring required.

d. Implement the revised BMP plan and its components and monitoring program according to the approved schedule.

8. So long as the Discharger has complied with the procedures set forth above and is implementing the revised BMP plan and its components, the Discharger does not have to repeat the same procedure for continuing or recurring exceedances of the same effluent limitations or receiving water limitation unless directed by the Regional Board to develop additional BMPs.

D. In calculating mass emission rates from the monthly average concentrations, use one half of the method detection limit for "Not Detected" (ND) and the estimated concentration for "Detected, but Not Quantified" (DNQ) for the calculation of the monthly average concentration. To be consistent with section II.E.3., if all pollutants belonging to the same group are reported as ND or DNQ, the sum of the individual pollutant concentrations should be considered as zero for the calculation of the monthly average concentration.

E. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream which may ultimately be released to waters of the United States is prohibited unless specifically authorized elsewhere in

this permit. This requirement is not applicable to products used for lawn and agricultural purposes. Discharge of chlorine for disinfection in plant potable and service water systems and in sewage treatment is authorized.

F. The discharge of any waste resulting from the combustion of toxic or hazardous wastes to any waste stream which ultimately discharges to waters of the United States is prohibited, unless specifically authorized elsewhere in this permit.

G. There shall be no discharge of PCB compounds, such as those once commonly used for transformer fluid.

H. Compliance with the sediment effluent concentrations will be determined by calculating the in-stream annual average at the base of each subwatershed where the discharges are located. The Boeing SSFL discharge is located in Arroyo Simi and the sediment concentration at Arroyo Simi East of Hitch Boulevard or at Simi Valley Water Quality Control Plant should not exceed the interim effluent limitations. Since the facility is located near the top of the watershed, the Discharger may choose to collect the sediment samples closer to the facility.

I. The Discharger shall notify the Executive Officer in writing no later than six months prior to planned discharge of any chemical, other than chlorine or other product previously reported to the Executive Officer, which may be toxic to aquatic life. Such notification shall include:

a. Name and general composition of the chemical,
b. Frequency of use,
c. Quantities to be used,
d. Proposed discharge concentrations, and
e. USEPA registration number, if applicable.

No discharge of such chemical shall be made prior to the Executive Officer's approval.

J. The Regional Board and USEPA shall be notified immediately by telephone, of the presence of adverse conditions in the receiving waters or on beaches and shores as a result of wastes discharged; written confirmation shall follow as soon as possible but not later than five working days after occurrence.

III. Provisions

A. This Order includes the attached *Standard Provisions and General Monitoring and Reporting Requirements* (Standard Provisions, Attachment N). If there is any conflict between provisions stated hereinbefore and the attached Standard Provisions, those provisions attached herein prevail. Boeing shall report to the Regional Board any monitoring data that exceeds the detection limit for monitored constituents without effluent limitations. The report shall be reported, via facsimile, within 24 hours of the Discharger receiving the data from the lab.

Regional Board staff will bring a reopener to the Regional Board within 90 days of determining that reasonable potential exists to cause or to contribute to an exceedance of water quality standards.

B. This Order includes the attached Monitoring and Reporting Program (Attachment T). If there is any conflict between provisions stated in the Monitoring and Reporting Program and the Standard Provisions, those provisions stated in the Monitoring and Reporting Program prevail.

C. This Order may be modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to: failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity; or acquisition of newly obtained information which would have justified the application of different conditions if known at the time of Order adoption. The filing of a request by the discharger for an Order modification, revocation, and issuance or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

D. The Discharger must comply with the lawful requirements of municipalities, counties, drainage districts, and other local agencies regarding discharges of storm water to storm drain systems or other water courses under their jurisdiction; including applicable requirements in municipal storm water management program developed to comply with NPDES permits issued by the Regional Board to local agencies.

E. Discharge of wastes to any point other than specifically described in this Order and permit is prohibited and constitutes a violation thereof.

F. The Discharger shall comply with all applicable effluent limitations, national standards of performance, toxic effluent standards, and all federal regulations established pursuant to Sections 301, 302, 303(d), 304, 306, 307, 316, and 423 of the Federal Clean Water Act and amendments thereto.

IV. Reopeners

A. This Order may be reopened and modified, in accordance with SIP Section 2.2.2.A, to incorporate new limitations based on future reasonable potential analysis to be conducted, upon completion of the collection of additional data by the discharger. Not withstanding the foregoing, in the event that reasonable potential analyses indicate that a pollutant has reasonable potential, the Regional Board staff shall bring an appropriate modification to the Regional Board, at the next practicable Board meeting.

B. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach.

C. This Order may be reopened and modified, in accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include new minimum levels (MLs).

D. This Order may be reopened and modified to consider incorporation of a site specific or regional design storm (based on the evaluation of the results of the Design Storm Project) and subsequent policy considerations.

E. This Order may be reopened and modified, to revise effluent limitations as a result of future Basin Plan Amendments, such as an update of an objective or the adoption of a TMDL for Los Angeles River or the Calleguas Creek.

F. This Order may be reopened upon the submission by the discharger, of adequate information, as determined by the Regional Board, to provide for dilution credits or a mixing zone, as may be appropriate.

G. This Order may be reopened and modified, to revise the toxicity language once that language becomes standardized.

H. In accordance with Provision I.B.7, this Order may be reopened and modified to incorporate interim limitations, to the extent authorized by law, while DTSC revises and reissues updated RCRA corrective action requirements or permits, as appropriate, to ensure compliance with this Order.

I. This Order may also be reopened and modified, revoked, and reissued or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62 to 122.64, 125.62, and 125.64. Causes for taking such actions include, but are not limited to, failure to comply with any condition of this order and permit, endangerment to human health or the environment resulting from the permitted activity.

J. This Order may be reopened and modified to revise the compliance schedule specified in Section I.B.4 for discharges from Outfalls 008 and 009, if the Discharger fails to comply with the California Water Code Section 13304 Order to Perform Interim/Source Removal Action of Soil in the Areas of Outfalls 008 and 009 Drainage Areas, issued on December 3, 2008.

V. Expiration Date

This Order expires on April 10, 2014.

The Discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations, not later than 180 days in advance of the expiration date as application for issuance of new waste discharge requirements.

VI. Previous Permits Superseded

Order No. R4-2004-0111, adopted by this Board on July 1, 2004, is superseded by this Order.

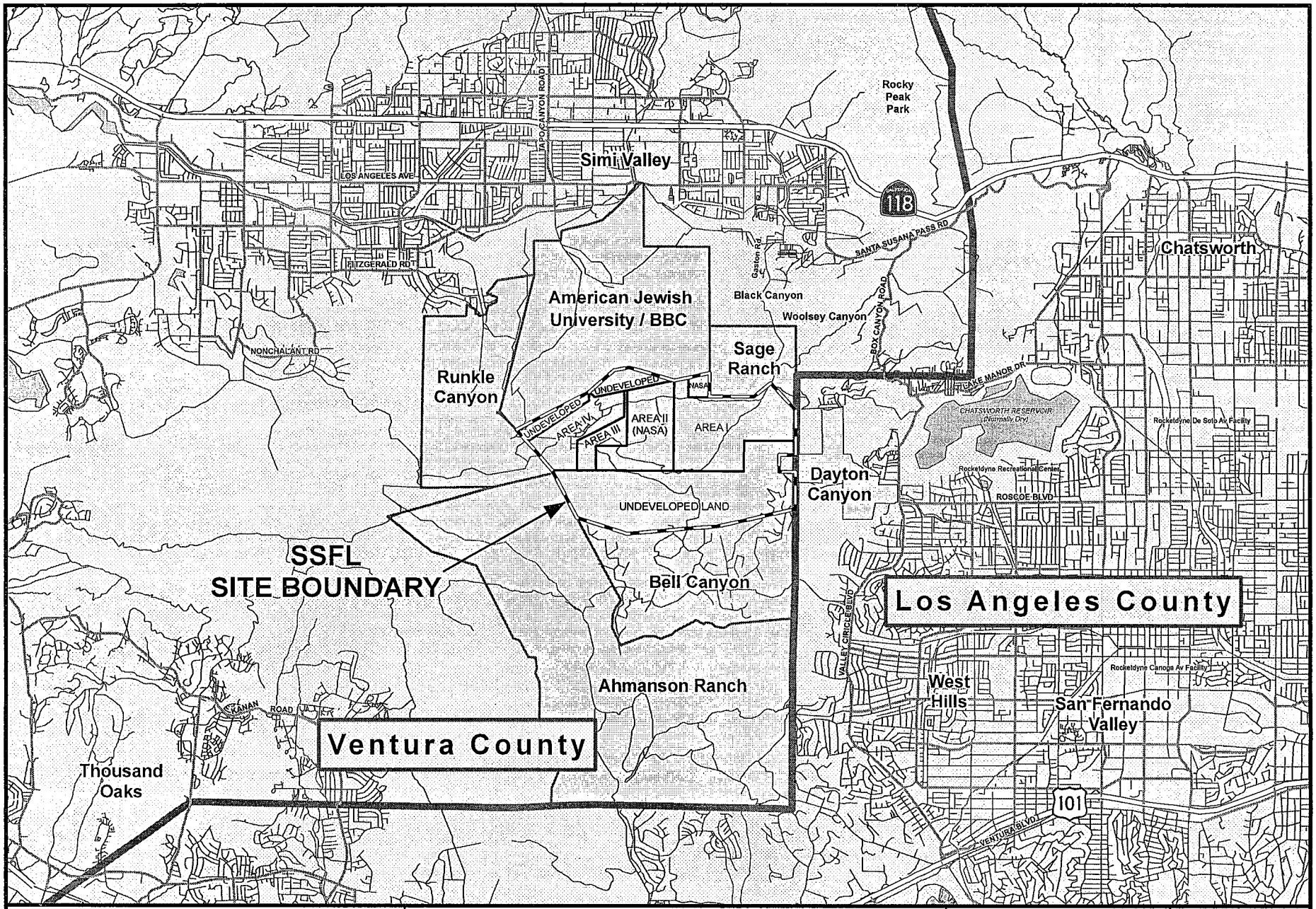
Order No. R4-2006-0008, adopted by this Board on January 19, 2006, is superseded by this Order.

Order No. R4-2006-0036, adopted by this Board on March 9, 2006, is superseded by this Order.

Order No. R4-2007-0055, adopted by this Board on November 1, 2007, is superseded by this Order.

I, Tracy J. Egoscue, Executive Officer, do hereby certify that the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region on May 8, 2009.

Tracy J. Egoscue
Executive Officer



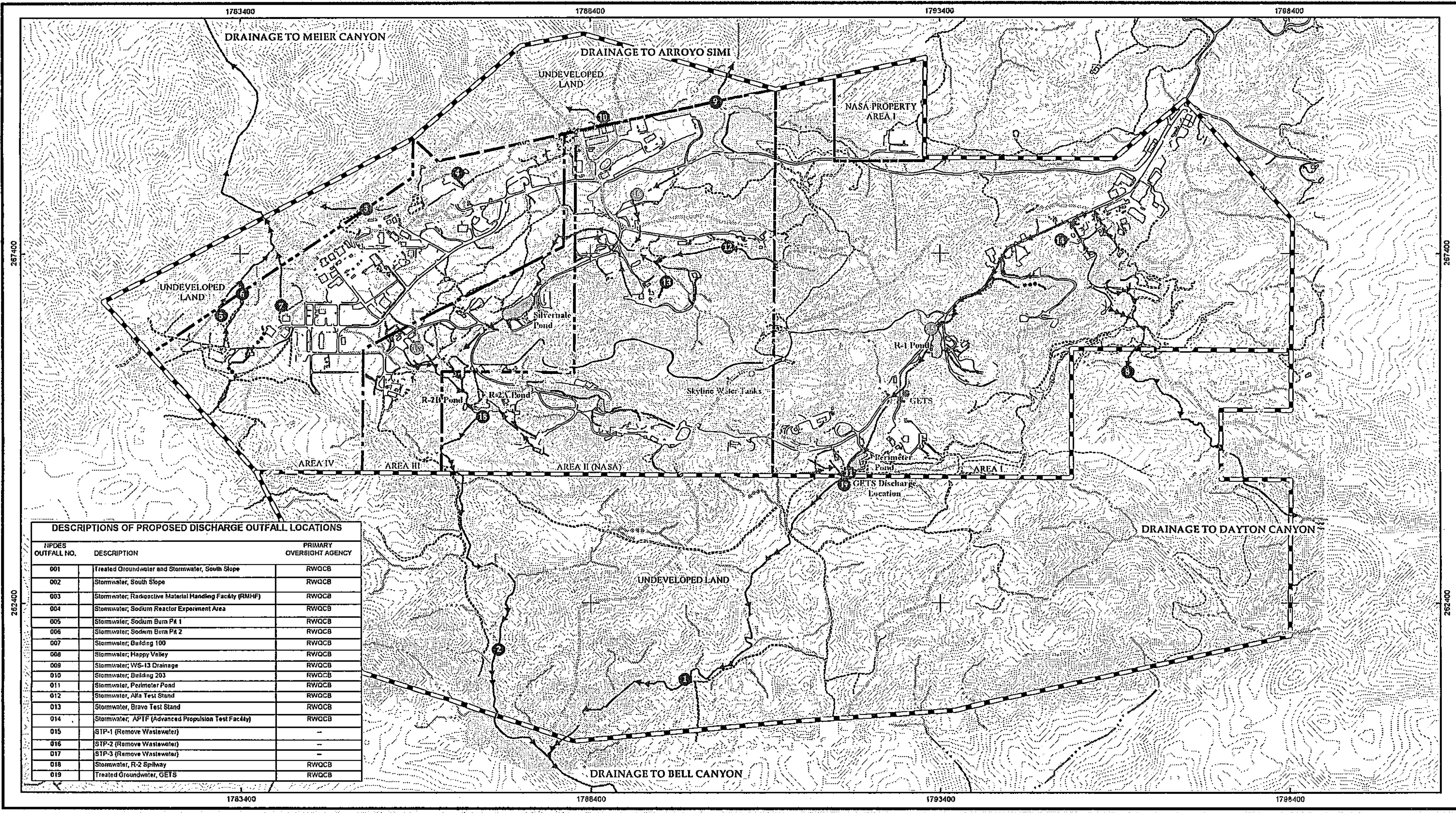
SANTA SUSANA FIELD LABORATORY

Document: Offsite-Report-Regional_Map.mxd

Date: Dec 10, 2007

Regional Map

FIGURE 1-1



DESCRIPTIONS OF PROPOSED DISCHARGE OUTFALL LOCATIONS

NPDES OUTFALL NO.	DESCRIPTION	PRIMARY OVERSIGHT AGENCY
001	Treated Groundwater and Stormwater, South Slope	RWQCB
002	Stormwater, South Slope	RWQCB
003	Stormwater; Radioactive Material Handling Facility (RMHF)	RWQCB
004	Stormwater; Sodium Reactor Experiment Area	RWQCB
005	Stormwater; Sodium Burn Pit 1	RWQCB
006	Stormwater; Sodium Burn Pit 2	RWQCB
007	Stormwater; Building 100	RWQCB
008	Stormwater; Happy Valley	RWQCB
009	Stormwater; WS-13 Drainage	RWQCB
010	Stormwater; Building 203	RWQCB
011	Stormwater, Perimeter Pond	RWQCB
012	Stormwater, Alfa Test Stand	RWQCB
013	Stormwater, Bravo Test Stand	RWQCB
014	Stormwater, APTF (Advanced Propulsion Test Facility)	RWQCB
015	STP-1 (Remove Wastewater)	–
016	STP-2 (Remove Wastewater)	–
017	STP-3 (Remove Wastewater)	–
018	Stormwater, R-2 Spillway	RWQCB
019	Treated Groundwater, GETS	RWQCB

Feet
0 500 1,000 2,000

MAP COORDINATES IN STATE PLANE, NAD 27, ZONE V

Legend

- NPDES Outfalls (RWQCB Primary Oversight Authority)
- Historical NPDES Outfalls
- Groundwater Extraction Treatment System (GETS)
- Effluent Pathways
- Surface Water Drainage Divide
- Natural Drainage
- Concrete Lined Drainage
- Graded Drainage
- Surface Water Reclamation Ponds

Base Map Legend

- SSFL Property Boundary
- Administrative Area Boundary
- Ground Elevation Contours
- Drainage Pathways
- A/C Curbing
- Dirt Road
- Existing Building or Structure

Site Map with Outfall Locations and Storm Water Drainage Systems

Date Jan 28, 2005

MWH

FIGURE 1-2

ATTACHMENT "A"

SECTION A: STORM WATER POLLUTION PREVENTION PLAN REQUIREMENTS

1. *Implementation Schedule*

A storm water pollution prevention plan (SWPPP) shall be developed and implemented for each facility covered by this General Permit in accordance with the following schedule.

a. Facility operators beginning industrial activities before October 1, 1992 shall develop and implement the SWPPP no later than October 1, 1992. Facility operators beginning industrial activities after October 1, 1992 shall develop and implement the SWPPP when industrial activities begin.

b. Existing facility operators that submitted a Notice of Intent (NOI), pursuant to State Water Resources Control Board (State Water Board) Order No. 91-013-DWQ (as amended by Order No. 92-12) or San Francisco Bay Regional Water Quality Control Board (Regional Water Board) Order No. 92-11 (as amended by Order No. 92-116), shall continue to implement their existing SWPPP and shall implement any necessary revisions to their SWPPP in a timely manner, but in no case later than August 1, 1997.

2. *Objectives*

The SWPPP has two major objectives: (a) to identify and evaluate sources of pollutants associated with industrial activities that may affect the quality of storm water discharges and authorized non-storm water discharges from the facility; and (b) to identify and implement site-specific best management practices (BMPs) to reduce or prevent pollutants associated with industrial activities in storm water discharges and authorized non-storm water discharges. BMPs may include a variety of pollution prevention measures or other low-cost and pollution control measures. They are generally categorized as non-structural BMPs (activity schedules, prohibitions of practices, maintenance procedures, and other low-cost measures) and as structural BMPs (treatment measures, run-off controls, overhead coverage.) To achieve these objectives, facility operators should consider the five phase process for SWPPP development and implementation as shown in Table A.

The SWPPP requirements are designed to be sufficiently flexible to meet the needs of various facilities. SWPPP requirements that are not applicable to a facility should not be included in the SWPPP.

A facility's SWPPP is a written document that shall contain a compliance activity schedule, a description of industrial activities and pollutant sources, descriptions of BMPs, drawings, maps, and relevant copies or references of parts of other plans. The SWPPP shall be revised whenever appropriate and shall be readily available for review by facility employees or Regional Water Board inspectors.

3. *Planning and Organization*

a. *Pollution Prevention Team*

The SWPPP shall identify a specific individual or individuals and their positions within the facility organization as members of a storm water pollution prevention team responsible for developing the SWPPP, assisting the facility manager in SWPPP implementation and revision, and conducting all monitoring program activities required in Section B of this General Permit. The SWPPP shall clearly identify the General Permit related responsibilities, duties, and activities of each team member. For small facilities, storm water pollution prevention teams may consist of one individual where appropriate.

b. *Review Other Requirements and Existing Facility Plans*

The SWPPP may incorporate or reference the appropriate elements of other regulatory requirements. Facility operators should review all local, State, and Federal requirements that impact, complement, or are consistent with the requirements of this General Permit. Facility operators should identify any existing facility plans that contain storm water pollutant control measures or relate to the requirements of this General Permit. As examples, facility operators whose facilities are subject to Federal Spill Prevention Control and Countermeasures' requirements should already have instituted a plan to control spills of certain hazardous materials. Similarly, facility operators whose facilities are subject to air quality related permits and regulations may already have evaluated industrial activities that generate dust or particulates.

4. *Site Map*

The SWPPP shall include a site map. The site map shall be provided on an 8-½ x 11 inch or larger sheet and include notes, legends, and other data as appropriate to ensure that the site map is clear and understandable. If necessary, facility operators may provide the required information on multiple site maps.