

Preliminary Phase (Pre-Construction Phase - Part of the Grading and Land Development Phase)

Construction stage including rough grading and/or disking, clearing and grubbing operations, or any soil disturbance prior to mass grading.

Project**Qualified SWPPP Developer**

Individual who is authorized to develop and revise SWPPPs.

Qualified SWPPP Practitioner

Individual assigned responsibility for non-storm water and storm water visual observations, sampling and analysis, and responsibility to ensure full compliance with the permit and implementation of all elements of the SWPPP, including the preparation of the annual compliance evaluation and the elimination of all unauthorized discharges.

Qualifying Rain Event

Any event that produces 0.5 inches or more precipitation with a 48 hour or greater period between rain events.

R Factor

Erosivity factor used in the Revised Universal Soil Loss Equation (RUSLE). The R factor represents the erosivity of the climate at a particular location. An average annual value of R is determined from historical weather records using erosivity values determined for individual storms. The erosivity of an individual storm is computed as the product of the storm's total energy, which is closely related to storm amount, and the storm's maximum 30-minute intensity.

Rain Event Action Plan (REAP)

Written document, specific for each rain event, that when implemented is designed to protect all exposed portions of the site within 48 hours of any likely precipitation event.

Remaining Sub sampled Material

The material (e.g., organic material, gravel, etc.) that remains after the organisms to be identified have been removed from the subsample for identification. (Generally, no macroinvertebrates are present in the remaining subsampled material, but the sample needs to be checked and verified using a complete Quality Assurance (QA) plan)

Routine Maintenance

Activities intended to maintain the original line and grade, hydraulic capacity, or original purpose of a facility.

Runoff Control BMPs

Measures used to divert runoff from offsite and runoff within the site.

Run-on

Discharges that originate offsite and flow onto the property of a separate project site.

Revised Universal Soil Loss Equation (RUSLE)

Empirical model that calculates average annual soil loss as a function of rainfall and runoff erosivity, soil erodibility, topography, erosion controls, and sediment controls.

Sampling and Analysis Plan

Document that describes how the samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be maintained to ensure the integrity of the sample during collection, storage, shipping and testing (i.e., quality assurance/quality control protocols).

Sediment

Solid particulate matter, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level.

Sedimentation

Process of deposition of suspended matter carried by water, wastewater, or other liquids, by gravity. It is usually accomplished by reducing the velocity of the liquid below the point at which it can transport the suspended material.

Sediment Control BMPs

Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. They include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (e.g., silt fence, sediment basin, fiber rolls, etc.).

Settleable Solids (SS)

Solid material that can be settled within a water column during a specified time frame. It is typically tested by placing a water sample into an Imhoff settling cone and then allowing the solids to settle by gravity for a given length of time. Results are reported either as a volume (mL/L) or a mass (mg/L) concentration.

Sheet Flow

Flow of water that occurs overland in areas where there are no defined channels where the water spreads out over a large area at a uniform depth.

Site**Soil Amendment**

Any material that is added to the soil to change its chemical properties, engineering properties, or erosion resistance that could become mobilized by storm water.

Streets and Utilities Phase

Construction stage including excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvements.

Structural Controls

Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution

Suspended Sediment Concentration (SSC)

The measure of the concentration of suspended solid material in a water sample by measuring the dry weight of all of the solid material from a known volume of a collected water sample. Results are reported in mg/L.

Total Suspended Solids (TSS)

The measure of the suspended solids in a water sample includes inorganic substances, such as soil particles and organic substances, such as algae, aquatic plant/animal waste, particles related to industrial/sewage waste, etc. The TSS test measures the concentration of suspended solids in water by measuring the dry weight of a solid material contained in a known volume of a sub-sample of a collected water sample. Results are reported in mg/L.

Toxicity

The adverse response(s) of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies.

Turbidity

The cloudiness of water quantified by the degree to which light traveling through a water column is scattered by the suspended organic and inorganic particles it contains. The turbidity test is reported in Nephelometric Turbidity Units (NTU) or Jackson Turbidity Units (JTU).

Vertical Construction Phase

The Build out of structures from foundations to roofing, including rough landscaping.

Waters of the United States

Generally refers to surface waters, as defined by the federal Environmental Protection Agency in 40 C.F.R. § 122.2.¹

Water Quality Objectives (WQO)

Water quality objectives are defined in the California Water Code as limits or levels of water quality constituents or characteristics, which are established for the reasonable protection of beneficial uses of water or the prevention of nuisance within a specific area.

¹ The application of the definition of “waters of the United States” may be difficult to determine; there are currently several judicial decisions that create some confusion. If a landowner is unsure whether the discharge must be covered by this General Permit, the landowner may wish to seek legal advice.

APPENDIX 6: Acronym List

ASBS	Areas of Special Biological Significance
ASTM	American Society of Testing and Materials; Standard Test Method for Particle-Size Analysis of Soils
ATS	Active Treatment System
BASMAA	Bay Area Storm water Management Agencies Association
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BOD	Biochemical Oxygen Demand
BPJ	Best Professional Judgment
CAFO	Confined Animal Feeding Operation
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CGP	NPDES General Permit for Storm Water Discharges Associated with Construction Activities
CIWQS	California Integrated Water Quality System
CKD	Cement Kiln Dust
COC	Chain of Custody
CPESC	Certified Professional in Erosion and Sediment Control
CPSWQ	Certified Professional in Storm Water Quality
CSMP	Construction Site Monitoring Program
CTB	Cement Treated Base
CTR	California Toxics Rule
CWA	Clean Water Act
CWC	California Water Code
CWP	Center for Watershed Protection
DADMAC	Diallyldimethyl-ammonium chloride
DDNR	Delaware Department of Natural Resources
DFG	Department of Fish and Game
DHS	Department of Health Services
DWQ	Division of Water Quality
EC	Electrical Conductivity
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
ESA	Environmentally Sensitive Area
ESC	Erosion and Sediment Control
HSPF	Hydrologic Simulation Program Fortran
JTU	Jackson Turbidity Units
LID	Low Impact Development
LOEC	Lowest Observed Effect Concentration
LRP	Legally Responsible Person
LUP	Linear Underground/Overhead Projects

MATC	Maximum Allowable Threshold Concentration
MDL	Method Detection Limits
MRR	Monitoring and Reporting Requirements
MS4	Municipal Separate Storm Sewer System
MUSLE	Modified Universal Soil Loss Equation
NAL	Numeric Action Level
NEL	Numeric Effluent Limitation
NICET	National Institute for Certification in Engineering Technologies
NOAA	National Oceanic and Atmospheric Administration
NOEC	No Observed Effect Concentration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NTR	National Toxics Rule
NTU	Nephelometric Turbidity Units
O&M	Operation and Maintenance
PAC	Polyaluminum chloride
PAM	Polyacrylamide
PASS	Polyaluminum chloride Silica/sulfate
POC	Pollutants of Concern
PoP	Probability of Precipitation
POTW	Publicly Owned Treatment Works
PRDs	Permit Registration Documents
PWS	Planning Watershed
QAMP	Quality Assurance Management Plan
QA/QC	Quality Assurance/Quality Control
REAP	Rain Event Action Plan
Regional Board	Regional Water Quality Control Board
ROWD	Report of Waste Discharge
RUSLE	Revised Universal Soil Loss Equation
RW	Receiving Water
SMARTS System	Storm water Multi Application Reporting and Tracking System
SS	Settleable Solids
SSC	Suspended Sediment Concentration
SUSMP	Standard Urban Storm Water Mitigation Plan
SW	Storm Water
SWARM	Storm Water Annual Report Module
SWAMP	Surface Water Ambient Monitoring Program
SWMM	Storm Water Management Model
SWMP	Storm Water Management Program
SWPPP	Storm Water Pollution Prevention Plan
TC	Treatment Control
TDS	Total Dissolved Solids

TMDL	Total Maximum Daily Load
TSS	Total Suspended Solids
USACOE	U.S. Army Corps of Engineers
USC	United States Code
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements
WLA	Waste Load Allocation
WET	Whole Effluent Toxicity
WRCC	Western Regional Climate Center
WQBEL	Water Quality Based Effluent Limitation
WQO	Water Quality Objective
WQS	Water Quality Standard

APPENDIX 7: State and Regional Water Resources Control Board Contacts

NORTH COAST REGION (1)
5550 Skylane Blvd, Ste. A
Santa Rose, CA 95403
(707) 576-2220 FAX: (707)523-0135

SAN FRANCISCO BAY REGION (2)
1515 Clay Street, Ste. 1400
Oakland, CA 94612
(510) 622-2300 FAX: (510) 622-2640

CENTRAL COAST REGION (3)
895 Aerovista Place, Ste 101
San Luis Obispo, CA 93401
(805) 549-3147 FAX: (805) 543-0397

LOS ANGELES REGION (4)
320 W. 4th Street, Ste. 200
Los Angeles, CA 90013
(213) 576-6600 FAX: (213) 576-6640

LAHONTAN REGION (6 SLT)
2501 Lake Tahoe Blvd.
South Lake Tahoe, CA 96150
(530) 542-5400 FAX: (530) 544-2271

VICTORVILLE OFFICE (6V)
14440 Civic Drive, Ste. 200
Victorville, CA 92392-2383
(760) 241-6583 FAX: (760) 241-7308

CENTRAL VALLEY REGION (5S)
11020 Sun Center Dr., #200
Rancho Cordova, CA 95670-6114
(916) 464-3291 FAX: (916) 464-4645

FRESNO BRANCH OFFICE (5F)
1685 E St.
Fresno, CA 93706
(559) 445-5116 FAX: (559) 445-5910

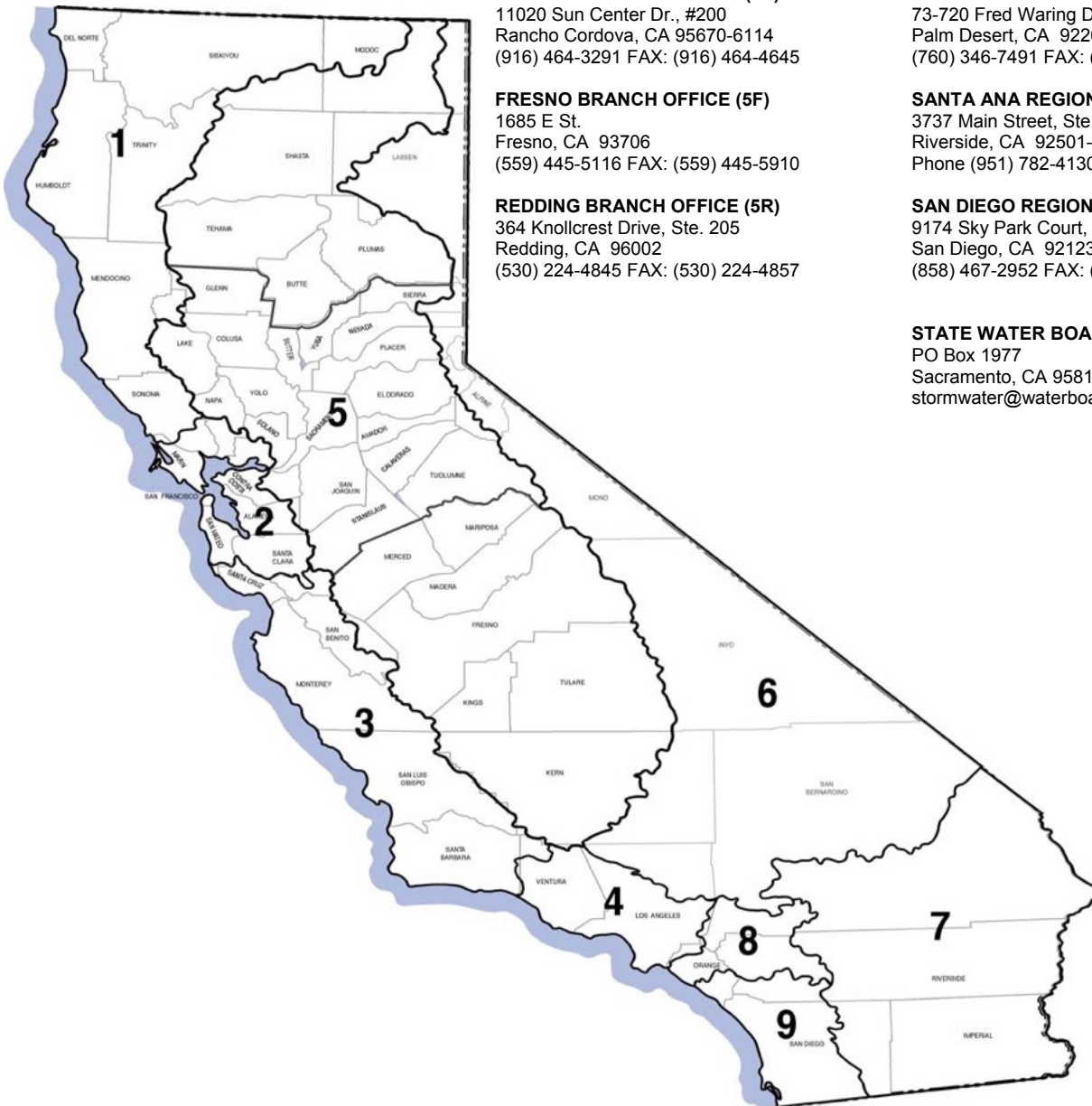
REDDING BRANCH OFFICE (5R)
364 Knollcrest Drive, Ste. 205
Redding, CA 96002
(530) 224-4845 FAX: (530) 224-4857

COLORADO RIVER BASIN REGION (7)
73-720 Fred Waring Dr., Ste. 100
Palm Desert, CA 92260
(760) 346-7491 FAX: (760) 341-6820

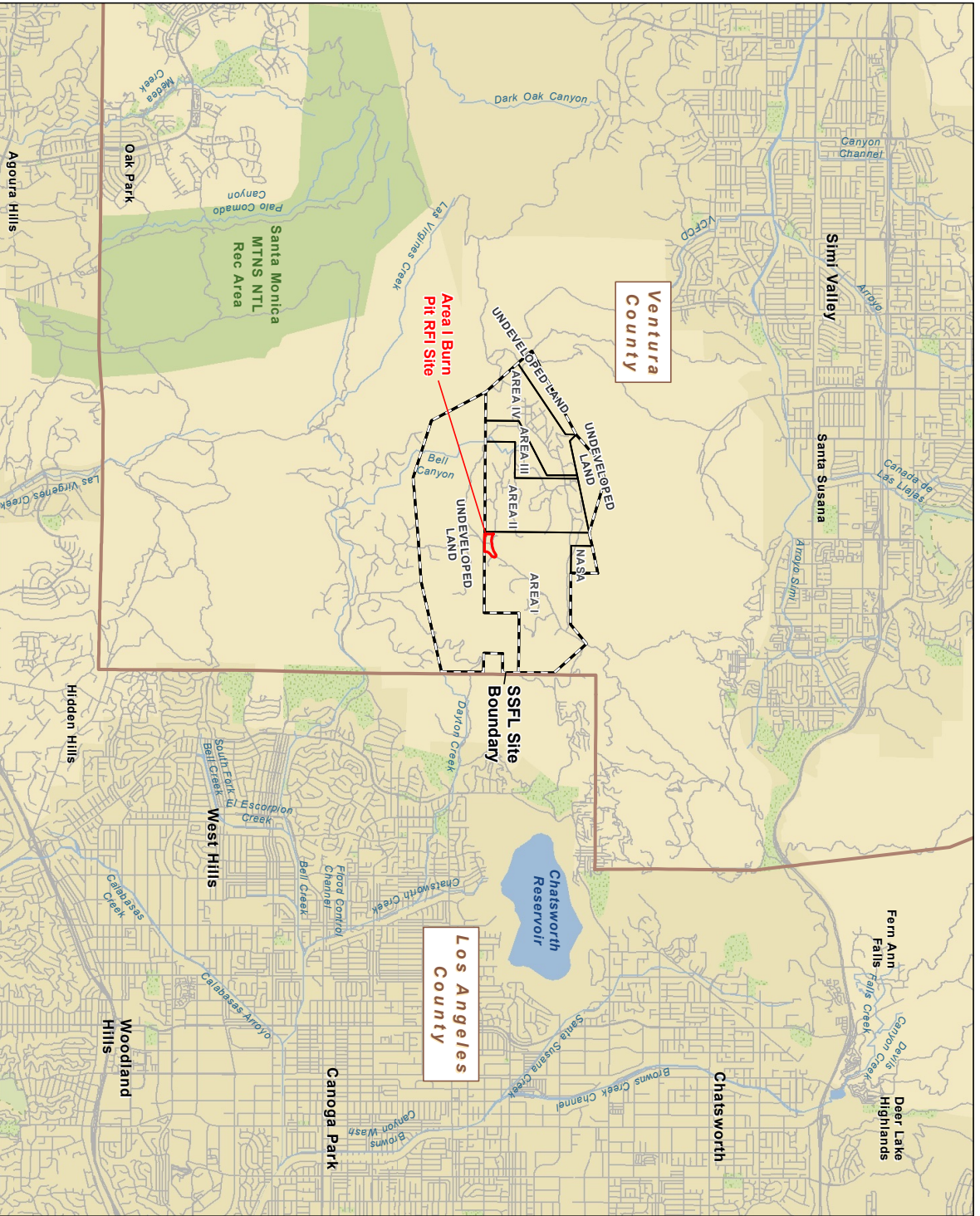
SANTA ANA REGION (8)
3737 Main Street, Ste. 500
Riverside, CA 92501-3339
Phone (951) 782-4130 FAX: (951) 781-6288

SAN DIEGO REGION (9)
9174 Sky Park Court, Ste. 100
San Diego, CA 92123-4340
(858) 467-2952 FAX: (858) 571-6972




STATE WATER BOARD
PO Box 1977
Sacramento, CA 95812-1977
stormwater@waterboards.ca.gov



Appendix B: Site Maps



LEGEND

-  SFSL Site Boundary
-  Administrative Boundary
-  Area I Burn Pit RFI Site

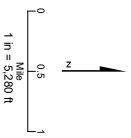
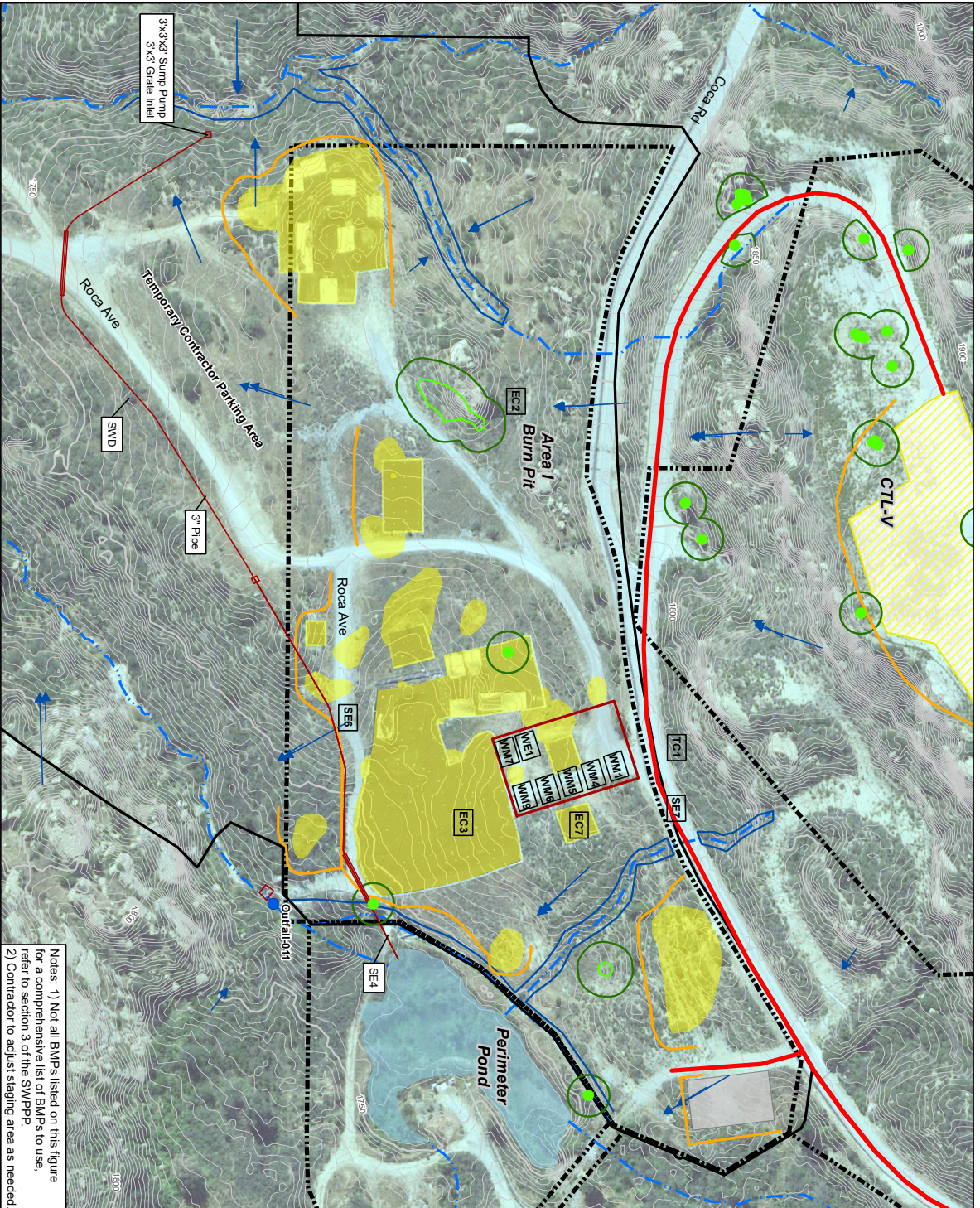


FIGURE E-1
Regional Map
 Early Action Work Plan
 Area I Burn Pit RFI Site
 Boeing RFI Subarea 1B Southwest
 Santa Susana Field Laboratory, Ventura County, California



Notes: 1) Not all BMPs listed on this figure for a comprehensive list of BMPs to use, refer to section 3 of the SWPPP
 2) Contractor to adjust staging area as needed

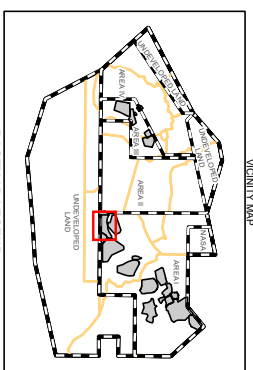
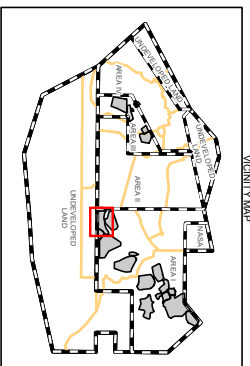
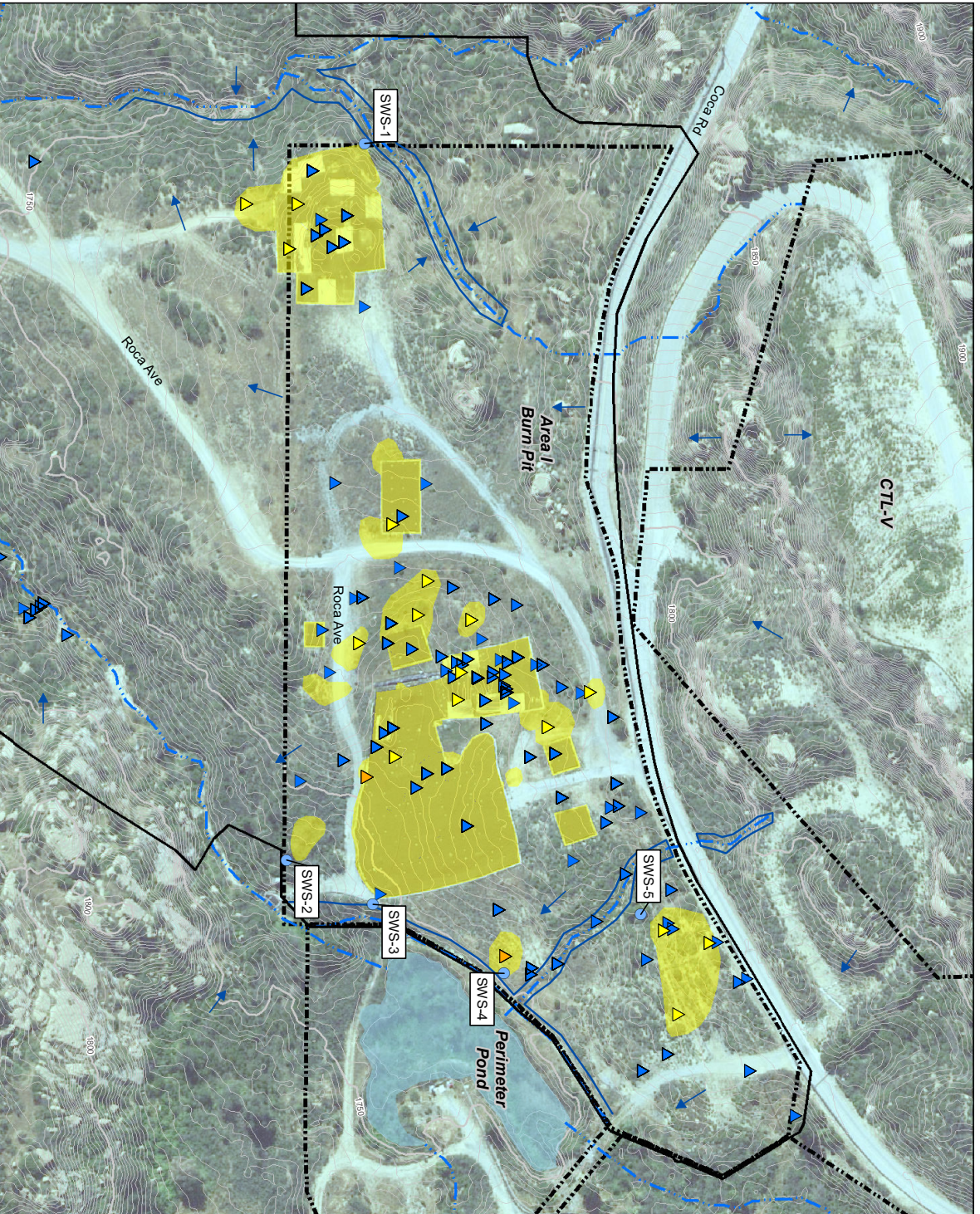


FIGURE E-2
Area I Burn Pit Early Action
Best Management Practice Plan

Boeing RFI Site
 Area I Burn Pit RFI Site
 Santa Susana Field Laboratory, Ventura County, California

0 60 120
 Feet
 1 in = 120 ft



- BASEMAP LEGEND**
- Boeing RFI Site
 - Area I Burn Pit RFI Site Reporting Area
 - Drainage Channel
 - Top of Bank of Drainage Channel
 - Elevation Contour Line (2-foot interval)
 - Pond
- Radionuclide Soil Detects Compared to January 30, 2013 Draft Provisional Radiological Look-Up Table Values (LUTV)**
- Detected \leq LUTV
 - Detected $>$ LUTV to $\leq 2\times$ LUTV
 - Detected $> 2\times$ LUTV to $\leq 10\times$ LUTV
 - Early Action Area
 - Stormwater Sampling Location
 - SW Flow Direction

Sample	Latitude	Longitude
SWS-1	34° 13' 27.55" N	118° 41' 30.83" W
SWS-2	34° 13' 28.68" N	118° 41' 20.58" W
SWS-3	34° 13' 27.71" N	118° 41' 19.95" W
SWS-4	34° 13' 29.27" N	118° 41' 18.98" W
SWS-5	34° 13' 30.89" N	118° 41' 19.84" W

Note: Only detects are presented.

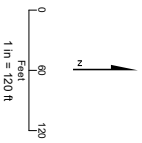
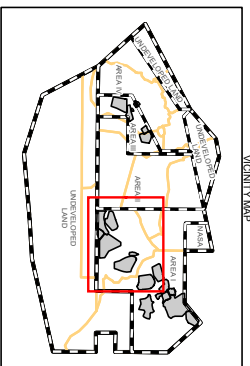
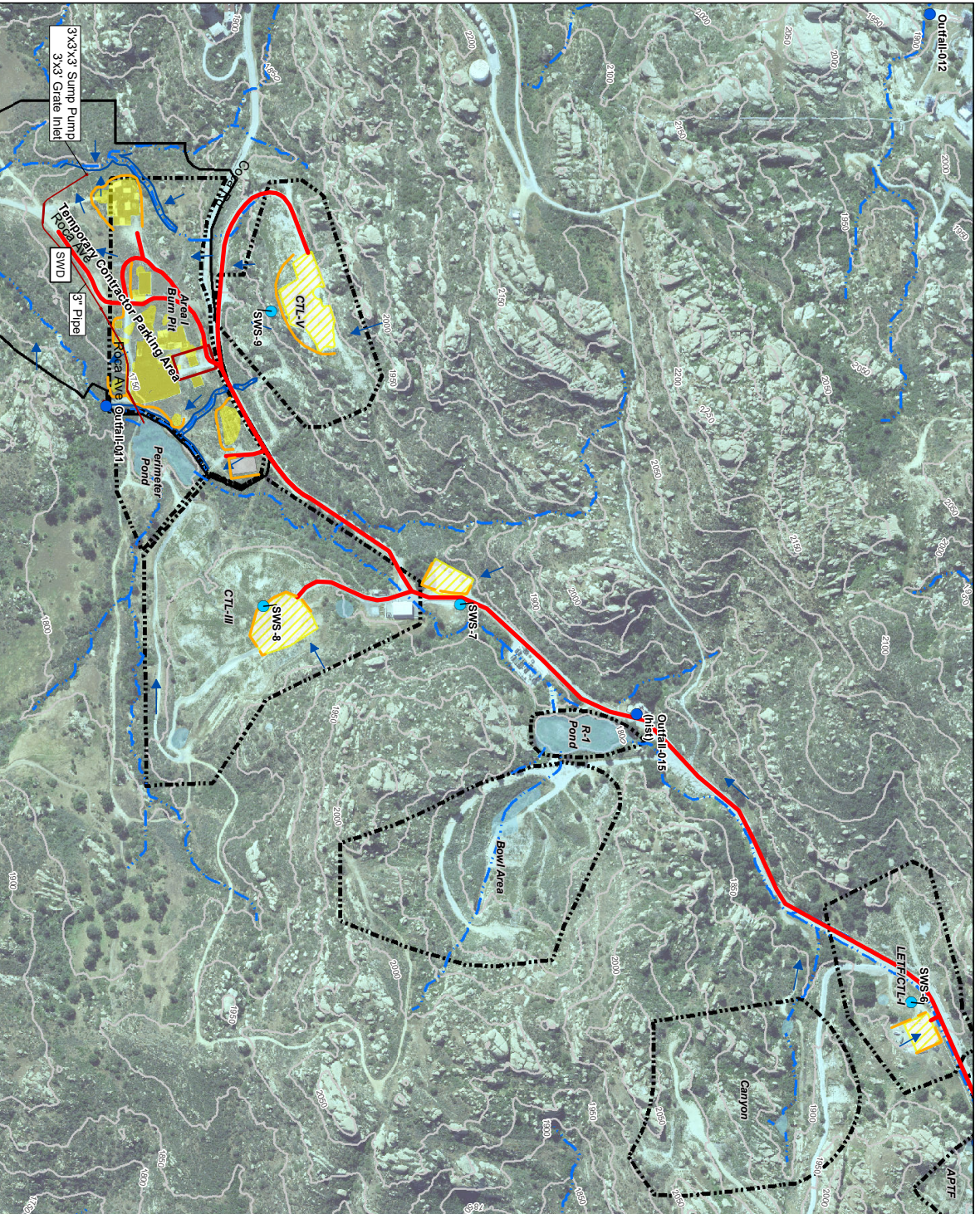


FIGURE E-3
Area I Burn Pit Removal Action
Soil/Stormwater Sampling Locations
 Early Action Work Plan
 Area I Burn Pit RFI Site
 Boeing RFI Subarea 1B Southwest
 Santa Susana Field Laboratory, Ventura County, California



- BASEMAP LEGEND**
- Boeing RFI Site
 - Area I Burn Pit RFI Site Reporting Area
 - Drainage Channel
 - Top of Bank of Drainage Channel
 - Elevation Contour Line (2-foot Interval)
 - Early Action Area
 - Onsite Truck Route
 - Temporary Storage Area
 - Vegetation Biomass Staging Area
 - Outfall
 - Stormwater Sample Location
 - SW Flow Direction
 - Biodegradable Fiber Roll (to be field-adjusted to stay out of sensitive areas)
 - Pond
 - Staging Area

NOTE: BIODEGRADABLE FIBER ROLLS TO BE PLACED AROUND ALL LOCATIONS WHERE MATERIAL IS STOCKPILED IN ADDITION TO WHAT IS SHOWN ON THIS FIGURE

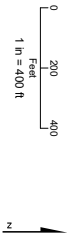
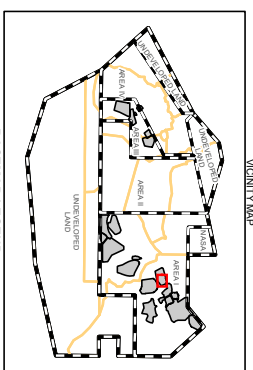
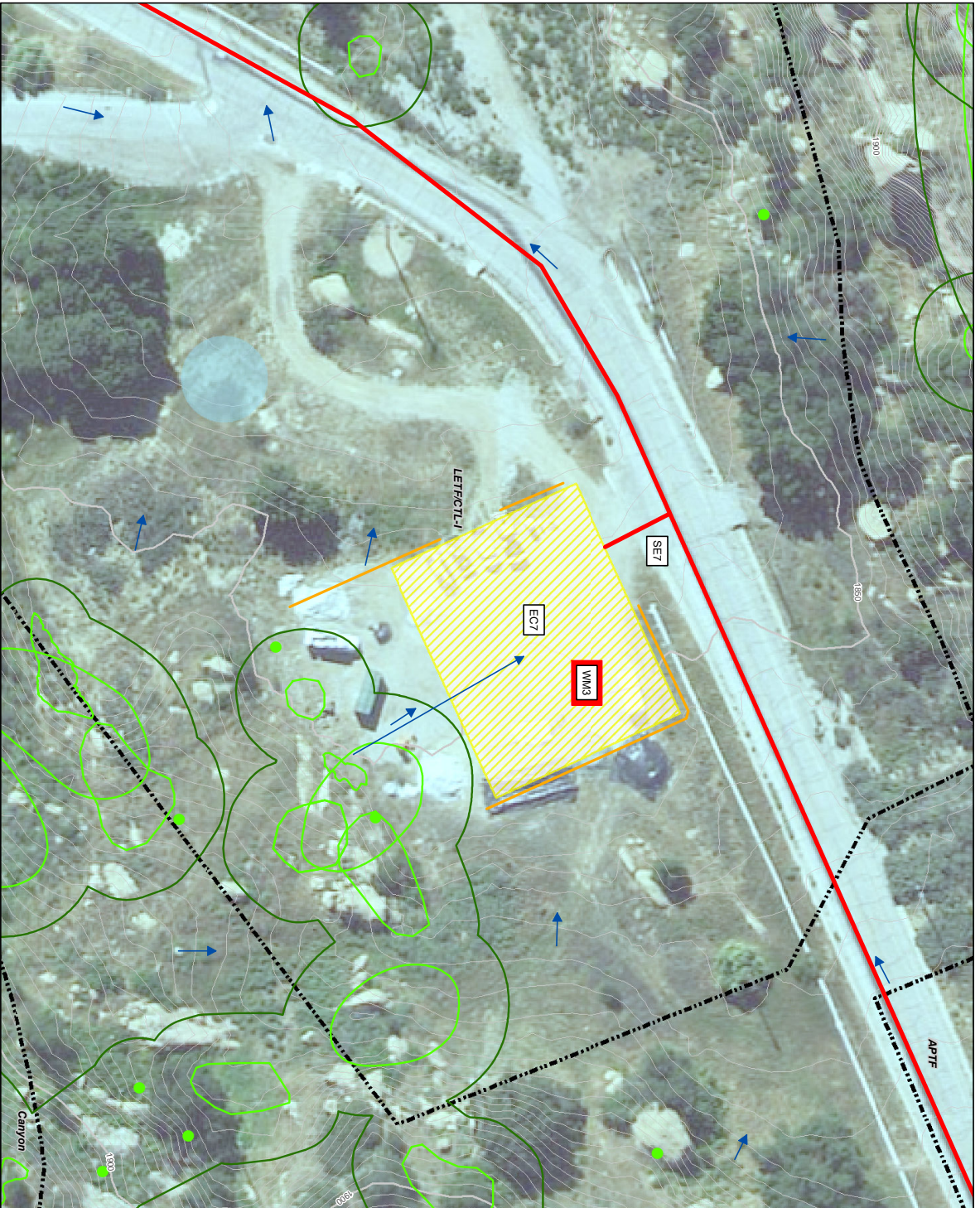


FIGURE E-4
Location Map of Area I Burn Pit and Stockpile Area 3
 Early Action Work Plan
 Area I Burn Pit RFI Site
 Boeing RFI Subarea 1B Southwest
 Santa Susana Field Laboratory, Ventura County, California



- BASEMAP LEGEND**
- Boeing RFI Site
 - Elevation Contour Line (2-foot interval)
 - Pond
 - Onsite Truck Route
 - Temporary Storage Area
 - Sensitive Plant Species Area
 - Sensitive Plant Species Area
 - Sensitive Plant Species Buffer
 - SW Flow Direction
 - Biodegradable Fiber Roll (to be field-adjusted to stay out of sensitive areas)
 - Geotextile Area
 - Geotextiles & Mats
 - Street Sweeping
 - Stockpile Management

NOTE: BIODEGRADABLE FIBER ROLLS TO BE PLACED AROUND ALL LOCATIONS WHERE MATERIAL IS STOCKPILED IN ADDITION TO WHAT IS SHOWN ON THIS FIGURE.

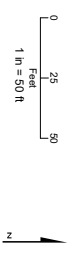
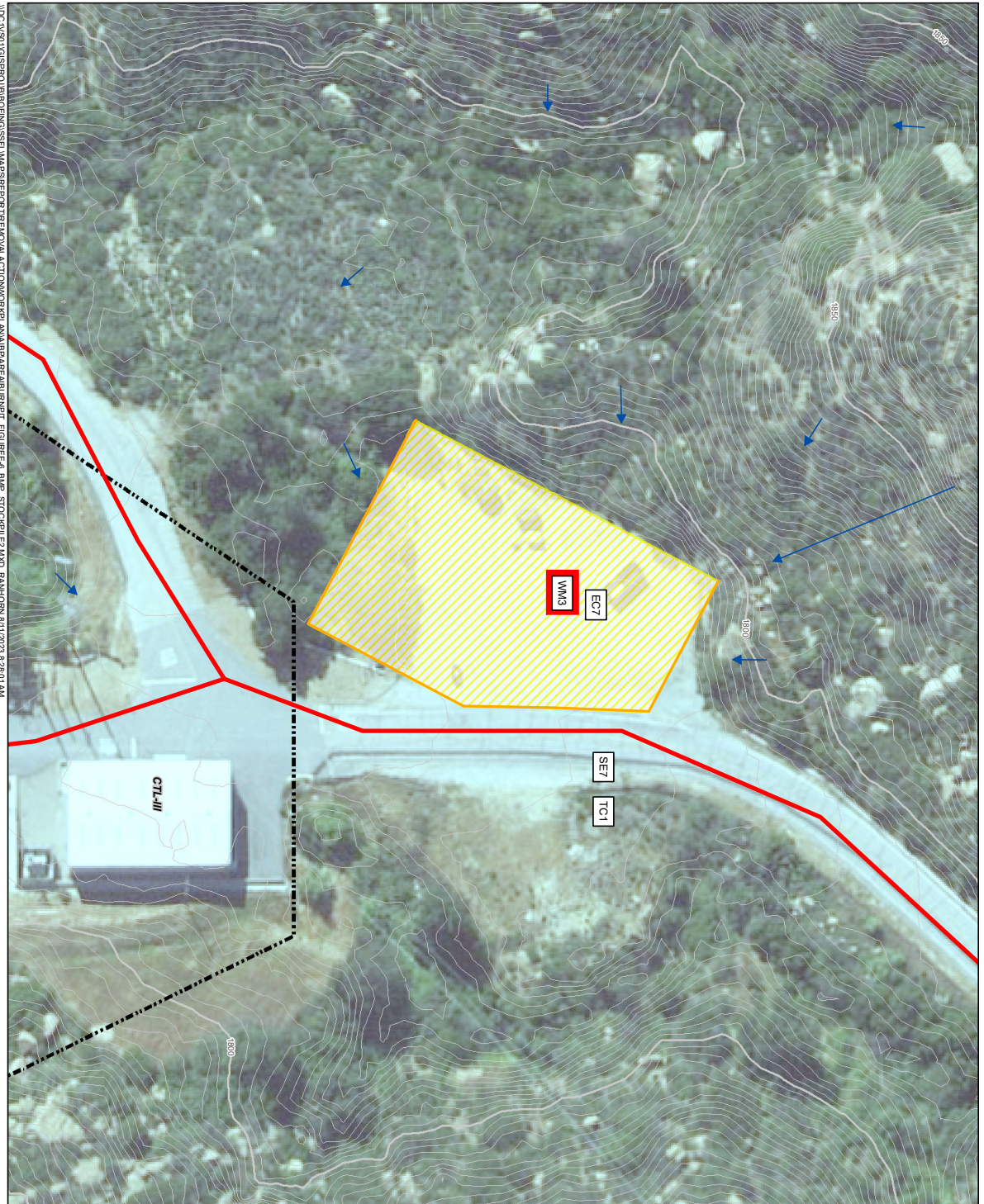
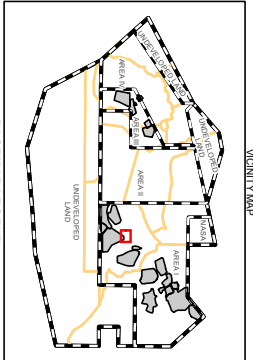


FIGURE E-5
Stockpile Area 3 Best Management Practice Plan

Early Action Work Plan
 Boeing I Burn Pit RFI Site
 Boeing RFI Subarea 1B Southwest
 Santa Susana Field Laboratory, Ventura County, California



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- BASEMAP LEGEND**
- Boeing RFI Site
 - Elevation Contour Line (2-foot interval)
 - Onsite Truck Route
 - Temporary Storage Area
 - SW Flow Direction
 - Biodegradable Fiber Roll (to be field-adjusted to stay out of sensitive areas)
 - Geotextile Area

- EC7 Geotextiles & Mats
- SE7 Street Sweeping
- MM3 Stockpile Management
- TC1 Stabilized Construction Site Entrance/Exit (Tumble Strips)

NOTE: BIODEGRADABLE FIBER ROLLS TO BE PLACED AROUND ALL LOCATIONS WHERE MATERIAL IS STOCKPILED IN ADDITION TO WHAT IS SHOWN ON THIS FIGURE.

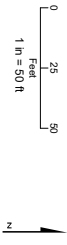


FIGURE E-6
Stockpile Area 2 Best Management Practice Plan
 Early Action Work Plan
 Area 1 Burn Pile RFI Site
 Boeing RFI Subarea 1B Southwest
 Santa Susana Field Laboratory, Ventura County, California