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- I: HYDROLOGY AND WATER QUALITY REPORTS
- J: NOISE AND VIBRATION IMPACT ANALYSIS
- K: PUBLIC SERVICE AND UTILITY QUESTIONNAIRE RESPONSES
- L: TRAFFIC IMPACT ANALYSIS
- M: VISUAL ANALYSIS
- N: FISCAL IMPACT ANALYSIS
- O: TRIBAL CONSULTATION CORRESPONDENCE

## LIST OF ABBREVIATIONS AND ACRONYMS

°F	degrees Fahrenheit
µg/L	micrograms per liter
303(d) list	2014/2016 California 303(d) List of Water Quality Limited Segments
A-1	Agricultural District
AAQS	ambient air quality standards
AB	Assembly Bill
ac	acre/acres
ACMs	asbestos-containing materials
ACOE	United States Army Corps of Engineers
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily trips
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
af	acre-feet
afy	acre-feet per year
AGR	agricultural supply
AHIP	Affordable Housing Implementation Plan
AMI	Advanced Metering Infrastructure
amsl	above mean sea level
Annex I	industrialized nations
APA	American Planning Association
APN	Assessor's Parcel Number
APR	Annual Progress Report
APS	Alternative Planning Strategy
AQMP	Air Quality Management Plan
Area Plan	Nakase Property Area Plan
Arid West Supplement	ACOE Wetland Delineation Manual: Arid West Supplement
AST	aboveground storage tank
ASTM	American Society of Testing Materials

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BAAQMD	Bay Area Air Quality Management District
Basin	South Coast Air Basin
BAU	business as usual
Bcf	billion cubic feet
BDO	Business Development Overlay
bgs	below ground surface
BIOL	preservation of biological habitats of special significance
BMP	Best Management Practice
BMR	Below Market Rate
C <sub>2</sub> F <sub>6</sub>	hexafluoroethane
C <sub>2</sub> H <sub>6</sub>	ethane
CAA	Clean Air Act
CAAQS	California ambient air quality standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal OES	Governor's Office of Emergency Services
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CALGreen	California Green Building Standards Code
California DWR	California Department of Water Resources
California MUTCD	California Manual on Uniform Traffic Control Devices
California Register	California Register of Historical Resources
Cal-IPC	California Invasive Plant Council
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CBC	California Building Code
CBIA	California Building Industry Association
CC&Rs	Covenants, Conditions, and Restrictions

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CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CED	California Energy Demand
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CESA	California Endangered Species Act
cf	cubic feet
CF <sub>3</sub> CH <sub>2</sub> F	HFC-134a
CF <sub>4</sub>	tetrafluoromethane
CFC	California Fire Code
CFCs	chlorofluorocarabons
CFP	California Fully Protected
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGS	California Geological Survey
CH <sub>3</sub> CHF <sub>2</sub>	HFC-152a
CH <sub>4</sub>	methane
CHF <sub>3</sub>	HFC-23
CHRIS	California Historical Resources Information System
City	City of Lake Forest
CIWMP	Countywide Integrated Waste Management Plan
Cleveland National	Cleveland National Forest Foundation v. San Diego Association of Governments (2017) 3 Cal.5th 497
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plan Society
CO	carbon monoxide

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CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COMM	commercial and sport fishing
County	County of Orange
CPT	cone penetrometer test
CPUC	California Public Utilities Commission
CRC	California Residential Code
CTMP	Construction Traffic Management Plan
CTR	California Toxics Rule
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act
cy	cubic yards
DAMP	Drainage Area Management Plan
dB	decibels
dba	A-weighted decibels
dba Leq	equivalent continuous sound level measured in A-weighted decibels
DDT	dichlorodiphenyltrichloroethane
De Novo	De Novo Planning Group
DOC	California Department of Conservation
DOGGR	California Department of Oil, Gas, and Geothermal Resources
DTSC	Department of Toxic Substances Control
du	dwelling unit
du/ac	dwelling units per acre
EDR	Environmental Data Resources
EIA	United States Energy Information Administration
EIR	Environmental Impact Report
EJ	Environmental Justice
EMF	electromagnetic field
EO	Executive Order
EOC	Emergency Operations Center
EOP	Emergency Operations Plan



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EPA	United States Environmental Protection Agency
ESA	Environmental Site Assessment
EST	estuarine habitat
EV	electric vehicle
FAR	floor-to-area ratio
FBI	Federal Bureau of Investigation
FD	Fusarium Dieback
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Federal Endangered Species Act
FHSZ	fire hazard severity zone
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FRA	Federal Responsibility Area
FRAP	Fire and Resources Assessment Program
FSZ	Farmland Security Zone
ft	foot/feet
FTA	Federal Transit Administration
gal	gallon/gallons
GCC	global climate change
Gg	gigagrams
GHG	greenhouse gas
GIS	geographic information system
GLA	Glenn Lukos Associates, Inc.
GPA	General Plan Amendment
gpd	gallons per day
gpm	gallons per minute
GPS	global positioning system
gpy	gallons per year
GSA	<i>groundwater sustainability agency</i>

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GWh	gigawatt-hours
GWR	groundwater recharge
H <sub>2</sub> O	water vapor
HA	Hydrologic Area
HCA	Orange County Health Care Agency
HCD	California Department of Housing and Community Development
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HFCs	hydrofluorocarbons
HI	Hazard Index
HMMP	Habitat Mitigation Monitoring Plan
HMP	Habitat Management Plan
HMSS	Hazardous Materials Services Section
HOA	Homeowner's Association
HQTA	High-Quality Transit Area
HRER	Historical Resources Evaluation Report
HRI	California State Historic Resources Inventory
HSA	Hydrologic Subarea
HU	Hydrologic Unit
HVAC	heating, ventilation, and air conditioning
I-5	Interstate 5
ICC	International Code Council
ICU	intersection capacity utilization
IFC	International Fire Code
in/sec	inches per second
IND	industrial service supply
IPCC	Intergovernmental Panel on Climate Change
IRWD	Irvine Ranch Water District
IS/NOP	Initial Study/Notice of Preparation
ISHB	invasive shot hole borer beetle
ITE	Institute of Transportation Engineers

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IWMP	Integrated Waste Management Plan
kBTU/yr	thousand British thermal units per year
KSHB	Kuroshio shot hole borer
kV	kilovolts
kWh	kilowatt-hours
kWh/yr	kilowatt-hours per year
L <sub>50</sub>	median noise level
lbs/sf	pounds per square foot
LCFS	Low Carbon Fuel Standard
LEA	Local Enforcement Agency
LED	light-emitting diode
Leq	equivalent continuous sound level
LESA	Land Evaluation and Site Assessment
LFTAM	Lake Forest Traffic Analysis Model
LFTM Program	Lake Forest Traffic Mitigation Program
LID	Low Impact Development
LIP	Local Implementation Plan
LOMR	Letter of Map Revision
LOS	level of service
LRA	Local Responsibility Area
LSAA	Lake and Streambed Alteration Agreement
LSTs	localized significance thresholds
MAR	marine habitat
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
MFI	median family income
mg/L	milligrams per liter
mgd	million gallons per day
mi	mile/miles
mi/day	miles per day
mL	milliliter

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MLD	Most Likely Descendant
MMT	million metric tons
MMT CO <sub>2</sub> e	million metric tons of carbon dioxide equivalent
Model Ordinance	Model Water Efficient Landscape Ordinance
mpg	miles per gallon
mph	miles per hour
MPN	most probable number
MPO	Metropolitan Planning Organization
MS4	Municipal Separate Storm Sewer System
MT	metric tons
MT CO <sub>2</sub> e/SP/yr	million tons of carbon dioxide equivalent per Service Population per year
MTBE	methyl tertiary-butyl ether
MUN	municipal and domestic supply
MW	megawatts
MWD	Metropolitan Water District
MWDOC	Metropolitan Water District of Orange County
MWH	megawatt hour
MWRP	Michelson Water Recycling Plant
N <sub>2</sub>	nitrogen
N <sub>2</sub> O	nitrous oxide
NAAQS	national ambient air quality standards
NAHC	Native American Heritage Commission
National Register	National Register of Historic Places
NAV	navigation
NCCP	Natural Communities Conservation Plan
NCCP/HCP	Natural Communities Conservation Plan/Habitat Conservation Plan
NF <sub>3</sub>	nitrogen trifluoride
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act of 1966
NHTSA	National Highway Traffic Safety Administration

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NIMS	National Incident Management System
NIOSH	National Institute for Occupational Safety and Health
NITM Program	North Irvine Transportation Mitigation Program
NMA	Neighborhood Mobility Area
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOI	Notice of Intent
Non-Annex I	developing nations
non-VHFHSZ	non-very high fire hazard severity zone
NOP	Notice of Preparation
North Orange County MS4 Permit	Waste Discharge Requirements for the County of Orange, Orange County Flood Control District and the Incorporated Cities of Orange County within the Santa Ana Region Areawide Urban Storm Water Runoff Orange County
NO <sub>x</sub>	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NR	Noise Reduction
NRCS	Natural Resource Conservation Service
O <sub>2</sub>	oxygen
O <sub>3</sub>	ozone
OAL	Office of Administrative Law
OCFA	Orange County Fire Authority
OCFCD	Orange County Flood Control District
OCPL	OC Public Libraries
OCPW	Orange County Public Works
OCSD	Orange County Sheriff's Department
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
OCWR	Orange County Waste and Recycling
OEHHA	Office of Environmental Health Hazard Assessment
OES	State Office of Emergency Services

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OHWM	ordinary high water mark
OPR	State Office of Planning and Research
OSA	Opportunity Study Area
OSA PEIR	Opportunities Study Area Program Environmental Impact Report
Pb	lead
PC 3	Rancho de Los Alisos Planned Community
PC 7	Baker Ranch Planned Community
PC 8	Foothill Ranch Planned Community
PC 9	Portola Hills Planned Community
PCBs	polychlorinated biphenyls
PCE	passenger car equivalent
PCH	Pacific Coast Highway
PEA	Preliminary Environmental Assessment
PFCs	perfluorocarbons
PGA	peak ground acceleration
pH	percentage of hydrogen
PM	particulate matter
PM <sub>10</sub>	particulate matter less than 10 microns in size
PM <sub>2.5</sub>	particulate matter less than 2.5 microns in size
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1970
ppb	parts per billion
ppm	parts per million
ppt	parts per trilliion
PPV	peak particle velocity
PRC	Public Resources Code
PRDs	Permit Registration Documents
PRIMP	Paleontological Resources Impact Mitigation Program
PROC	industrial process supply
Project	Nakase Nursery/Toll Brothers Project
PSH	permanent supportive housing
PSHB	polyphagous shot hole borer beetle

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psi	pounds per square inch
RARE	rare, threatened, or endangered species
RCM	Regulatory Compliance Measure
RCP	Regional Comprehensive Plan <i>or</i> reinforced concrete pipe
RCRA	Resource Conservation and Recovery Act of 1976
RCRA-SQG	Resource Conservation and Recovery Act-Small Quantity Generator
RDMD	Orange County Resources and Development Management Department
REC1	water contact recreation
REC2	non-contact water recreation
RECLAIM	Regional Clean Air Incentives Market
RECs	Recognized Environmental Conditions
RHNA	Regional Housing Needs Assessment
ROGs	reactive organic gases
RPS	Renewables Portfolio Standard
RRFB	Rectangular Rapid Flashing Beacon
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SAFE Vehicles Rule	The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks
SAMP	Special Area Management Plan <i>or</i> Sub-Area Master Plan
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCH	State Clearinghouse
SCS	Sustainable Communities Strategy

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SEER	Seasonal Energy Efficiency Ratio
SEMS	Standardized Emergency Management System
sf	square foot/feet
SF <sub>6</sub>	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act of 2014
SHEL	shellfish harvesting
SHL	California Historical Landmarks
SHMA	Seismic Hazard Mapping Act
SHMP	State Hazard Mitigation Plan
SHPO	State Historic Preservation Officer
SIP	<i>State Implementation Plan</i>
SLF	Sacred Lands File
SLPS	Short-Lived Climate Pollutant Strategy
SMA	Special Maintenance Area
SMARTS	Stormwater Multiple Application and Report Tracking System
SO <sub>2</sub>	sulfur dioxide
SO <sub>4</sub>	sulfates
SoCalGas	Southern California Gas Company
SO <sub>x</sub>	oxides of sulfur
SP	Service Population
SPHI	California Points of Historical Interest
SPWN	spawning, reproduction and development
sq mi	square mile/miles
SR-1	State Route 1
SR-241	State Route 241
SR-55	State Route 55
SR-91	State Route 91
SRA	State Responsibility Area
SRRE	Source Reduction and Recycling Element
SSC	Species of Special Concern
STARS	Sheriff's Team of Active Retired Seniors



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State CEQA Guidelines	Guidelines for the California Environmental Quality Act
STC	sound transmission class
SVUSD	Saddleback Valley Unified School District
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TACs	toxic air contaminants
TCA	Transportation Corridor Agencies
TCE	trichloroethylene
TGD	Technical Guidance Document for the Preparation of Conceptual/Preliminary and/or Project Water Quality Management Plans (WQMPs)
TIA	Traffic Impact Analysis
TMDL	Total Maximum Daily Load
tpd	tons per day
tpy	tons per year
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USC	United States Code
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife
USGS	United States Geological Survey
UST	underground storage tank
UV	ultraviolet
UWMP	Urban Water Management Plan
v/c	volume-to-capacity
VCA	Voluntary Cleanup Agreement
VHFHSZ	very high fire hazard severity zone
Visual Analysis	Nakase Property Area Plan Visual Analysis
VMT	vehicle miles traveled
VOC	volatile organic compound
vph	vehicles per hour

vplph	vehicles per lane per hour
WARM	warm freshwater habitat
WDID	Waste Discharge Identification Number
WDR	Waste Discharge Requirements
Wetland Manual	ACOE 1987 Wetland Delineation Manual
WILD	wildlife habitat
WQMP	Water Quality Management Plan
WSA	Water Supply Assessment
WSAA	Watershed Streambed Alteration Agreement
WUI	wildland-urban interface
ZEV	zero emission vehicle
ZNE	zero net energy