



# Altamont Pass Wind Resource Area Repowering

## Draft Program Environmental Impact Report

State Clearinghouse #2010082063

Prepared by Alameda County Community Development Agency  
with technical assistance from ICF International

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# **ALTAMONT PASS WIND RESOURCE AREA REPOWERING DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT**

**STATE CLEARINGHOUSE #2010082063**

**PREPARED BY:**

Alameda County Community Development Agency  
224 W. Winton Avenue, Room 111  
Hayward, CA 94544  
Contact: Sandra Rivera  
510.670.5400

**WITH TECHNICAL ASSISTANCE FROM:**

ICF International  
630 K Street, Suite 400  
Sacramento, CA 95814  
Contact: Sally Zeff  
916.737.3000

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# Acronyms and Abbreviations

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°F	Fahrenheit
µg/m <sup>3</sup>	micrograms per cubic meter
AADT	annual average daily traffic
AB 1807	Tanner Air Toxics Act
ABAG	Association of Bay Area Governments
ACCWP	Alameda County Clean Water Program
ACDEH	Alameda County Department of Environmental Health
ACE	Altamont Corridor Express
ACFD	Alameda County Fire Department
ACHP	Advisory Council on Historic Preservation
ACWD	Alameda County Water District
ADC	Alternative Daily Cover
ADMM	adaptive management measures
ADT	Average Daily Traffic
af	acre-feet
AFMT	Alameda County Avian Fatality Monitoring Team
Alquist-Priolo Act	Alquist-Priolo Earthquake Fault Zoning Act
ALUC	Airport Land Use Commission
ALUCP	Airport Land Use Compatibility Plan
ANSI/ASA	Meets American National Standards Institute / American Standards Association
APE	area of potential effect
APLIC	Avian Power Line Interaction Committee
APP	Avian Protection Plan / Avian Protection Program
APWRA	Altamont Pass Wind Resource Area
ARB	California Air Resources Board
Assembly Bill 1807	Toxic Air Contaminant Identification and Control Act
Assembly Bill 2588	Air Toxics Hot Spots Information and Assessment Act of 1987
AST	aboveground storage tank
ASTM	American Society of Testing and Materials
AWI	Altamont Winds Inc.
AWPPS	Avian Wildlife Protection Program and Schedule
AWT	airborne wind turbines
BAAQMD	Bay Area Air Quality Management District
BAAQMD Guidelines	Bay Area Air Quality Management District California Environmental Quality Act Air Quality Guidelines
BACTs	Best Available Control Technologies
Basin Plan	San Francisco Bay Basin Region
basin plans	water quality control plans



BCC	birds of conservation concern
BGEPA	Bald and Golden Eagle Protection Act
BMPs	best management practices
BOS	Board of Supervisors
BRMP	Biological Resources Management Plan
Buena Vista	Buena Vista repowering project
C&D	construction and demolition
CAA	Clean Air Act
CAAA	Clean Air Act amendments
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalFire	California Department of Forestry and Fire Protection
CAAQS	California Ambient Air Quality Standards
Cal-OSHA	California Division of Occupational Safety and Health
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARE	Californians for Renewable Energy
CBC	California Building Code
CBD	Center for Biological Diversity
CBSC	California Building Standards Code
CCAA	California Clean Air Act
CCAP	Climate Action Plan
CCAs	Community Choice Aggregations
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
Center	California Raptor Center
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH <sub>4</sub>	methane
CHP	California Highway Patrol
CHRH	California Register of Historic Resources
CHRIS	California Historical Resources Information System
CMA	Congestion Management Agency
CMP	Congestion Management Program
CNEL	community noise equivalent level
CO	carbon monoxide

CO <sub>2</sub>	carbon dioxide
CO <sub>2</sub> e	carbon dioxide equivalent
COD	commercial operation date
Construction General Permit	NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2009-0009-DWQ)
County	Alameda County
CPUC	California Public Utilities Commission
CR	Climate Registry
CUP	conditional use permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWTP	Countywide Transportation Plan
dB	decibel
dBA	A-Weighted Decibel
Delta	San Joaquin–Sacramento Delta
Diablo Winds	Diablo Winds repowering project
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EACCS or Conservation Strategy	East Alameda County Conservation Strategy
Eagle Guidance	Eagle Conservation Plan Guidance
EBRPD	East Bay Regional Park District / East Bay Recreation and Parks District
EBZA	East County Board of Zoning Adjustments
ECAP	East County Area Plan
EDF RE	EDF Renewable Energy / enXco
EIR	environmental impact report
EMFAC	EMission FACTors
EMT	Middle Period Transition
EPA	U.S. Environmental Protection Agency
EPC	Engineering Procurement and Construction
ESA	Endangered Species Act
ESPs	energy service providers
FAA	Federal Aviation Administration
FAR	floor area ratio
Farmland	Prime Farmland, Unique Farmland, or Farmland of Statewide Importance
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FMMP	Farmland Mapping and Monitoring Program
FR	Federal Register
FY	fiscal year

General Industrial Permit, General Construction Permit	NPDES General Permit for Storm Water Discharges
GHG	greenhouse gas
GLO	General Land Office
GVWR	gross vehicle weight rating
GWP	global warming potential
GWR	gross vehicle weight rating
H&S	Health and Safety
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HAPs	hazardous air pollutants
HCD	California Department of Housing and Community Development
HCP	habitat conservation plan
HDD	horizontal directional drilling
HFC	hydrofluorocarbons
HI	hazard index
HMBP	Hazardous Materials Business Plan
HRA	Health Risk Assessment
HSC	California Health and Safety Code
Hz	Hertz
I-	Interstate
IBC	International Building Code
IOU	investor-owned utilities
IPCC	Intergovernmental Panel on Climate Change
kV	kilovolt
kW	kilowatt
LARPD	Livermore Area Recreation and Park District
lbs	pounds
LCFS	low carbon fuel standard
LDAR	leak detection and repair
L <sub>dn</sub>	day-night sound level
L <sub>eq</sub>	equivalent sound level
LID	Low impact development
L <sub>max</sub>	Maximum Sound Level
L <sub>min</sub>	Minimum Sound Level
LOS	level of service
LPA	Large Parcel Agriculture
LPFD	Livermore/Pleasanton Fire Department
LSAA	Lake and Streambed Alteration Agreement

L <sub>xx</sub>	Percentile-Exceeded Sound Level
m/s	meters/second
Master Plan	East Bay Regional Park District Master Plan
MBTA	Migratory Bird Treaty Act
mg/L	milligrams per liter
mph	miles per hour
MPOs	metropolitan planning organizations
MRZ	Mineral Resource Zone
msl	mean sea level
MTS	Metropolitan Transportation System
MW	megawatt
MWh/year	megawatt-hours per year
N <sub>2</sub> O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NextEra	NextEra Energy, LLC
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO <sub>2</sub>	nitrogen dioxide
NOI	notice of intent
NOP	Notice of Preparation
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPS	National Park Service
NWIC	Northwest Information Center
O&M	Operations and maintenance
OEHHA	Office of Environmental Health Hazard Assessment
OHP	California Office of Historic Preservation
OHWM	ordinary high water mark
Open Space Element	Open Space Element of the General Plan
Ozone Plan	Bay Area 2001 Ozone Attainment Plan
Patterson Pass	Patterson Pass Wind Farm, LLC
Patterson Pass Project	Patterson Pass Wind Farm Repowering Project
Pb	lead
PCBs	polychlorinated biphenyls
PEIR	Program Environmental Impact Report

PFC	perfluorinated carbons
PG&E	Pacific Gas and Electric Company
Phase I ESA	Phase I Environmental Site Assessment Process
PM	particulate matter
PM10	Respirable particulate matter
Porter-Cologne Act	Porter-Cologne Water Quality Control Act of 1969
ppb	parts per billion
pphm	parts per hundred million
ppm	parts per million
ppt	parts per trillion
PPV	Peak Particle Velocity
PRC	Public Resources Code
PRDs	Permit Registration Documents
Program	Altamont Wind Resource Area Repowering Program
Programmatic BO	Programmatic Biological Opinion for the East Alameda County Conservation Strategy
PSD	Prevention of Significant Deterioration
QA/QC	quality assurance/quality control
RCRA	Resource Conservation and Recovery Act of 1976
Regional Water Boards	Regional Water Quality Control Boards
Reporting Rule	Greenhouse Gas Reporting Rule
Repowering Program	proposed 2014 Repowering Program for the Altamont Pass Wind Resources Area
RHNA	Regional Housing Need Assessment
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTPs	Regional Transportation Plans
RWQCB	Regional Water Quality Control Board
SB	Senate Bills
SCAQMD	South Coast Air Quality Management District
Scenic Route Element	Scenic Route Element of the Alameda County General Plan
SCS	sustainable communities strategy
SF <sub>6</sub>	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SHPO	State Historic Preservation Officer
SIP	state implementation plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	Surface Mining and Reclamation Act of 1975
SMARTS	Storm water Multiple Application and Report Tracking System
SO <sub>2</sub>	sulfur dioxide

SPCC	Spill Prevention Control and Countermeasures
SR	State Route
SRAs	state responsibility areas
SRC	Scientific Review Committee
State Water Board	State Water Resources Control Board
SVP	Society of Vertebrate Paleontology
SWPPP	stormwater pollution prevention plan
TAC	technical advisory committee
TACs	toxic air containments
TCMs	traffic control measures
TCP	Traffic Control Plan
TDM	Transportation Demand Management
TDS	total dissolved solids
TMDL	total maximum daily load
TNM	traffic noise model
TRFD	Tracy Rural Fire Department
UCMP	University of California Museum of Paleontology
UPRR	Union Pacific Railroad
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
Vasco Winds	Vasco Winds repowering project
VAWT	vertical axis wind turbine
VMT	vehicle miles traveled
VOC	volatile organic compounds
WDRs	waste discharge requirements
WECS	Wind Energy Conversion Systems
WTG	wind turbine generator
WTGS	Wind Turbine Generation Systems