

Final

Hazardous Fire Risk Reduction Environmental Impact Statement

East Bay Hills, California

November 2014



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Final Environmental Impact Statement

Lead Agency: U.S. Department of Homeland Security, Federal Emergency Management Agency (FEMA) Region IX.

Cooperating Agencies: U.S. Forest Service, National Park Service, U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Office of Emergency Services (Cal OES), University of California Berkeley (UCB), City of Oakland (Oakland), East Bay Regional Park District (EBRPD)

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Designation: Final Environmental Impact Statement

Location: Alameda and Contra Costa Counties, California

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Abstract:

The Hazardous Fire Risk Reduction Environmental Impact Statement (EIS) evaluates the environmental effects that could occur if vegetation management designed to reduce wildfire hazard and risk is implemented in 105 defined project areas. One hundred of these areas are in the East Bay Hills, and the remaining five areas are in Miller/Knox Regional Shoreline, a facility of the EBRPD on San Francisco Bay. Vegetation management work in 60 of the 105 project areas was proposed in four grant applications submitted to FEMA by EBRPD, UCB, and Oakland through Cal OES. In addition to the vegetation management work proposed for FEMA funding, work is proposed within the project areas that may be funded by other agencies or that is not eligible for FEMA funding. The combination of vegetation management activities proposed for FEMA funding (the grant applications) and the activities proposed to be funded by others on the 60 project areas is identified as the proposed action. The EIS also addresses potential impacts of similar vegetation management activities on 45 project areas not included in the grant applications, which are referred to as connected project areas. Direct, indirect, and cumulative impacts resulting from the proposed and connected actions as well as the no action alternative on the physical, natural, and socioeconomic environment of the region are addressed in this EIS.

The official comment period on the draft EIS was from May 3, 2013, to June 17, 2013. The Notice of Availability of the final EIS will be published in the *Federal Register* on or about December 5, 2014. After release of this final EIS, FEMA will document its decision on the proposed project in a record of decision (ROD) that will be issued no earlier than early 2015.

Responsible Officials for Final EIS:

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Acronyms and Abbreviations

AAA	Anti-Aircraft Artillery
AB	Assembly Bill
ABAG	Association of Bay Area Governments
AC Transit	Alameda-Contra Costa County Transit District
ACFD	Alameda County Fire Department
ACHP	Advisory Council on Historic Preservation
ACS	American Community Survey
ACTC	Alameda County Transportation Commission
ADT	average daily traffic
APCO	air pollution control officer
APE	area of potential effect
AST	aboveground storage tank
AWS	Alameda whipsnake
BA	biological assessment
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BEHAVE	fire behavior prediction and fuel modeling system
BCDC	San Francisco Bay Conservation and Development Commission
BGEPA	Bald and Golden Eagle Protection Act
BLM	Bureau of Land Management
BMPs	best management practices
BO	biological opinion
CAA	Clean Air Act
CAC	County Agricultural Commissioner
Cal-IPC	California Invasive Plant Council

Acronyms and Abbreviations

Cal EPA	California Environmental Protection Agency
Cal Fire	California Department of Forestry and Fire Protection
Cal OES	California Office of Emergency Services (formerly California Emergency Management Agency – Cal EMA)
Cal OSHA	California Occupational Safety and Health Administration
Calfish	California Cooperative Anadromous Fish & Habitat Data Program
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBD	central business district
CCC	Central California Coast
CCR	California Code of Regulations
CCTA	Contra Costa Transportation Authority
CD	compact disk
CDFW	California Department of Fish and Wildlife
CDPH	California Department of Public Health
CDPR	California Department of Parks and Recreation
CDPR	California Department of Pesticide Regulation
CEC	California Energy Commission
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act of 1980
CESA	California Endangered Species Act
cf	cubic feet
CF	non-native coniferous forest
CFGC	California Fish and Wildlife (formerly Game) Code
CFR	Code of Federal Regulations
cfs	cubic feet per second

CGC	California Government Code
CGS	California Geological Survey
CH ₄	methane
CHHSLs	California Human Health Screening Levels
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ eq	carbon dioxide equivalent
Cortese List	Hazardous Waste and Substances Sites List
CRLF	California red-legged frog
CSC	California species of concern
CSU	conditional secondary unit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
D	diesel for all diesel fueled engines
dB	decibel
dBA	A-weighted decibel
DBH	diameter at breast height
DDT	dichloro diphenyl trichloroethane
DFW	California Department of Fish and Wildlife
DHS	U.S. Department of Homeland Security
DNL	day-night weighted-average sound level
DOC	California Department of Conservation
DPS	distinct population segment

Acronyms and Abbreviations

DTSC	California Department of Toxic Substances Control
du	dwelling unit
DWR	California Department of Water Resources
EA	environmental assessment
EACCS	East Alameda County Conservation Strategy
EBMUD	East Bay Municipal Utility District
EBRPD	East Bay Regional Park District
EDR	Environmental Data Resources Inc.
EFH	essential fish habitat
EH&S	environmental health and safety
EHAP	Environmental Hazards Assessment Program
EIR	environmental impact report
EIS	environmental impact statement
EMFAC2011	CARB's on-road vehicle emissions model
EMS	emergency medical services
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Endangered Species Act
ESU	Evolutionarily Significant Units
EUC	Eucalyptus forest
EUGL	Eucalyptus <i>globulus</i> (blue-gum eucalyptus)
°F	degrees Fahrenheit
FBFM	fire behavior fuel model
FD	federal delisted
FE	federal endangered
FEMA	Federal Emergency Management Agency
FFDCA	Federal Food, Drug, and Cosmetic Act

FHWA	Federal Highway Administration
FIA	Forest Inventory Analysis
FID	Facility Inventory Database
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRM	Flood Insurance Rate Map
FlamMap	quantitative spatial modeling program
FQPA	Food Quality Protection Act
ft	feet
FT	federal threatened
FUDS	formerly used defense site
FuME	fuel management erosion analysis
G2	gasoline for 2-stroke engines (such as chainsaw engines)
G4	gasoline for 4-stroke engines (such as automobile and large equipment engines)
gal/day	gallons per day
GHG	greenhouse gas
GIS	geographic information system
HAFFMP	Hill Area Fire Fuel Management Plan
HAP	hazardous (toxic) air pollutant
HAZNET	EDR database of hazardous waste manifests
HCP	habitat conservation plan
HEF	Hills Emergency Forum
HMA	Hazard Mitigation Assistance grant programs
HMBP	Hazard Materials Business Plan
HMGP	Hazard Mitigation Grant Program
HP	horsepower
HUD	U.S. Department of Housing and Urban Development

Acronyms and Abbreviations

HWY	highway
Hz	Hertz
I	interstate
IPM	Integrated Pest Management
IX	roman numerical nine
L	NRHP listed
LBNL	Lawrence Berkeley National Laboratory
lbs/day	pounds per day
LCFS	low carbon fuel standards
L _{dn}	day-night average sound level
L _{eq}	equivalent sound level
L _{max}	maximum L _{eq}
L _{min}	minimum L _{eq}
LRDP	long range development plan
LUP	Land Use Plan
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCL	maximum contaminant level
µg/m ³	micrograms per cubic meter
mg/L	milligrams per liter
MHA	Metropolitan Horsemen's Association
µm	micrometers
MMP	mitigation and monitoring plan
µPa	micropascals
MOU	memorandum of understanding
mph	miles per hour
MRI	Midwest Research Institute

MSDS	material safety data sheet
MSFCMA	Magnuson-Stevens Fishery Conservation and Management Act
N ₂ O	nitrous oxide
NA	not applicable
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NC	not calculated, no acute activity
NCCP	Natural Community Conservation Program
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Code
NFIP	National Flood Insurance Program
NH ₃	ammonia
NHD	National Hydrography Dataset
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NR	not recommended for NHRP eligibility
NRHP	National Register of Historic Places
NWCG	National Wildfire Coordinating Group
NWI	National Wetlands Inventory
O ₂	molecular oxygen
O ₃	ozone

Acronyms and Abbreviations

Oakland	City of Oakland
OEHHA	Office of Environmental Health Hazard Assessment
OES	California Office of Emergency Services
OFFROAD2007	CARB's off-road equipment emissions model
OHWM	ordinary high water mark
ONO	Oakland North
OSHA	Occupational Safety and Health Administration
OSO	Oakland South
OSWER	Office of Solid Waste and Emergency Response
OW	oak-bay forest
PAH	polycyclic aromatic hydrocarbons
Pb	lead
PCBs	polychlorinated biphenyls
PCEs	primary constituent elements
PDM	Pre-Disaster Mitigation
PEL	permissible exposure limit
PETB	Pesticide and Environmental Toxicology Branch
PG&E	Pacific Gas & Electric
PHGs	public health goals
PIRA	<i>Pinus radiata</i> (Monterey pine)
PL	public law
PM	particulate matter
PM-2.5	particulate matter 2.5 micrometers or less in diameter
PM-10	particulate matter 10 micrometers or less in diameter
PMAC	Pest Management Advisory Committee
PP-CS	Physical Plant-Campus Services
ppb	parts per billion

ppm	parts per million
PRC	California Public Resources Code
PRIA	Pesticide Registration Improvement Act of 2003
PRIA2	PRIA Renewal Act
Proposition 65	California Safe Drinking Water and Toxic Enforcement Act
PSD	prevention of significant deterioration
PSIS	Pesticide Safety Information Series
QUAG	Quercus agrifolia (coast live oak)
R	recommended for NHRP eligibility
RCRA	Resource Conservation and Recovery Act of 1976
RDWD	redwood forest
RMS	root-mean-square
RTA	recommended treatment area
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendment and Reauthorization Act of 1986
SE	state endangered
SESE	<i>Sequoia sempervirens</i> (coast redwood)
SFBAAB	San Francisco Bay Area Air Basin
SFHA	Special Flood Hazard Area
SFRWQCB	San Francisco Regional Water Quality Control Board
SHPO	State Historic Preservation Officer
SLIC	spills, leaks, investigations and cleanup
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SOD	Sudden Oak Death syndrome
SPCC	Spill Prevention, Control & Countermeasure Plan
SPL	sound pressure level

Acronyms and Abbreviations

SR	state rare
SR	state route
SRA	State Responsibility Area
ST	state threatened
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDS	total dissolved solids
Tg	teragrams
TMDL	total maximum daily load
TRIS	Toxic Release Inventory System
UCB	University of California, Berkeley
UCEH&S	University of California Environmental Health & Safety Group
UCFMC	UCB Fire Mitigation Committee
UCPD	University of California Police Department
UMCA	<i>Umbellularia californica</i> (California bay-laurel)
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
VMT	vehicle miles traveled
VOC	volatile organic compound
Vol	volume

WBWG	Western Bay Working Group
WCCTAC	Western Contra Costa Transportation Advisory Committee
WEPP	Water Erosion Prediction Project
WHRRMP	EBRPD Wildfire Hazard Reduction and Resource Management Plan
WPA	Works Progress Administration
WRCC	Western Regional Climate Center
WUI	wildland-urban interface

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