APPENDIX A NOTICE OF INTENT

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ACTION: 30-Day notice and request for comments; Extension of an existing information collection: 1651–0083.

SUMMARY: U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: United States-Caribbean Basin Trade Partnership Act (CBTPA). This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with a change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (75 FR 15446) on March 29, 2010, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

DATES: Written comments should be received on or before July 12, 2010.

ADDRESSES: Interested persons are invited to submit written comments on this proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to the OMB Desk Officer for Customs and Border Protection, Department of Homeland Security, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–5806.

SUPPLEMENTARY INFORMATION: U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's/component's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collections of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological techniques or other forms of information.

Title: United States-Caribbean Basin Trade Partnership Act (CBTPA).

OMB Number: 1651–0083.

Form Number: 450.

Abstract: This collection of information is required to implement the duty preference provisions of the United States-Caribbean Basin Trade Partnership Act (CBTPA). The provisions of CBTPA were adopted by the U.S. with the enactment of the Trade and Development Act of 2000 (Pub. L. 106–200). The objective of the CBTPA is to expand trade benefits to countries in the Caribbean Basin. For preferential treatment under CBTPA, importers are required to have CBTPA Certification of Origin (Form 450) in their possession at the time of the claim, and to provide it to CBP upon request. CBP uses the information provided on Form 450 to determine if an importer is entitled to preferential duty treatment under the provisions of the CBTPA. The CBTPA is provided for in 19 CFR 10.224 and the Form 450 can be found at *http://www.cbp.gov.*

Current Actions: This submission is being made to extend the expiration date with a change to the burden hours. CBP proposes to reduce the burden hours by revising our estimate of the number of claims made under CBTPA on a yearly basis. These revised estimates are based on the number of CBTPA claims that CBP received in 2009.

Type of Review: Extension (with change).

Affected Public: Businesses.

Estimated Number of Respondents: 84.

Estimated Number of Responses per Respondent: 57.2.

Estimated Number of Total Annual Responses: 4,804.

Estimated Time per Response: 15 minutes.

Estimated Total Annual Burden Hours: 1,201.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, Office of Regulations and Rulings, 799 9th Street, NW., 7th Floor, Washington, DC 20229–1177, at 202–325–0265.

Dated: June 7, 2010.

Tracey Denning,

Agency Clearance Officer, U.S. Customs and Border Protection.

[FR Doc. 2010–13935 Filed 6–9–10; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Docket ID FEMA–2010–0037]

Hazardous Fire Risk Reduction, East Bay Hills, CA

AGENCY: Federal Emergency Management Agency, DHS.

ACTION: Notice of intent to prepare an Environmental Impact Statement.

SUMMARY: The Federal Emergency Management Agency (FEMA) intends to prepare an environmental impact statement evaluating the environmental impacts of funding a combination of hazardous fuel reduction projects within the East Bay Hills area in Alameda and Contra Costa Counties, California. The projects may be funded through Federal assistance grants under the Pre-Disaster Mitigation (PDM) and Hazard Mitigation Grant Program (HMGP).

DATES: Comments must be submitted by July 12, 2010.

ADDRESSES: You may submit comments, identified by Docket ID FEMA–2010–0037, by one of the following methods:

Federal eRulemaking Portal: http://www.regulations.gov. Search for Docket ID FEMA–2010–0037 and follow the instructions for submitting comments.

Fax: 703–483–2999.

Mail/Hand Delivery/Courier: Office of Chief Counsel, Federal Emergency Management Agency, 500 C Street, SW., Room 835, Washington, DC 20472–3100.

Instructions: All submissions received must include the agency name and Docket ID. Regardless of the method used for submitting comments or material, all submissions will be posted, without change, to the Federal eRulemaking Portal at *http://www.regulations.gov,* and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to read the Privacy Act notice that is available via a link in the footer of *http://www.regulations.gov.*

Docket: For access to the docket for this notice or comments submitted by the public on this notice, go to the Federal eRulemaking Portal at *http://www.regulations.gov* and search for docket ID FEMA–2010–0037. These documents may also be inspected at FEMA, Office of Chief Counsel, Room 835, 500 C Street, SW., Washington, DC 20472–3100.

FOR FURTHER INFORMATION CONTACT: Alessandro Amaglio, Regional

Environmental Officer, Region IX, FEMA, 1111 Broadway, Suite 1200, Oakland, CA 94607–4052 and phone number at (510) 627–7027.

SUPPLEMENTARY INFORMATION: Section 102(2)(C) of the National Environmental Policy Act of 1969 (NEPA), the Council on Environmental Quality (CEQ) regulations implementing NEPA, and FEMA's Environmental Considerations regulations require the preparation of an environmental impact statement (EIS) for major Federal actions that would have significant impacts on the quality of the human environment. The CEQ regulations at 40 CFR 1501.7 require the issuance of a notice of intent to prepare an EIS to initiate the scoping process. Scoping is an early and open process that assists the Federal action agency in determining the scope of issues to be addressed and for identifying significant issues related to a proposed action.

FEMA has received four hazard mitigation applications for fuel reduction projects in the East Bay Hills area in California. The proposed action is to fund these four projects under section 404 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93–288, as amended, establishing the Hazard Mitigation Grant Program (HMGP) and Section 203 of the Stafford Act, establishing the Pre-Disaster Mitigation (PDM) grant program. The Strawberry Canyon Vegetation Management Project involves the removal of eucalyptus and other exotic-non native trees in a 60-acre area, chipping the downed trees and scattering the chips in portions of the cleared area, and the semiannual application of herbicides, as needed, to eradicate eucalyptus tree sprouts from the area. The Claremont Canyon Vegetation Management Project involves the removal of eucalyptus, Monterey pine, and acacia trees in a 45-acre area, chipping the downed trees and scattering the chips in portions of the cleared area, and the semiannual application of herbicides, as needed, to eradicate eucalyptus tree sprouts from the area. The City of Oakland's project involves thinning and eradication techniques within 325 acres. The East Bay Regional Park District project involves the treatment of 590 acres to reduce fuel load through brush removal (mechanical and hand), chemical treatment, limbing and mowing, thinning, and grazing techniques as appropriate to reduce the risk of fire hazard. These projects would affect approximately 980 acres of the Wildland-Urban Interface in the East Bay Hills running from Lake Chabot to Wildcat Canyon and Sobrante Ridge, encompassing both Alameda and Contra Costa Counties.

In January 2008, FEMA published a notice of availability of a draft environmental assessment for the Strawberry Canyon Vegetation Management Project for public comment. The draft environmental assessment can be found at FEMA's Web page *http://www.fema.gov/library/viewRecord.do?id=3111*. The public involvement process revealed concerns regarding the effectiveness and scope of the vegetation removal methodologies and application of wood chips in portions of the area, impacts to plant and animal species in the area, and concerns regarding cumulative impacts of all projects in the area. FEMA has determined that an EIS should be conducted to address cumulatively the Vegetation Management Projects for the Strawberry Canyon as well as the Claremont Canyon, and the ones proposed by the City of Oakland and the East Bay Regional Park District.

In addition to the proposed action, FEMA is considering the following alternatives:

(1) No action, which involves denying the grant applications;

(2) Funding the grant applications with conditions to address their environmental impacts;

(3) Funding the grant applications with fuel reduction methodologies that are different than as proposed by the applicants; and

(4) Partially funding the grant applications, including funding some grant projects and denying others.

FEMA plans to conduct public scoping meetings during July 2010. FEMA will provide notices of the time and place of the meetings through local news media.

Authority: 42 U.S.C. 4331 *et seq.;* 40 CFR part 1500; 44 CFR part 10.

W. Craig Fugate,

Administrator, Federal Emergency Management Agency.

[FR Doc. 2010–13926 Filed 6–9–10; 8:45 am]

BILLING CODE 9119–19–P

DEPARTMENT OF THE INTERIOR

National Park Service

30-Day Federal Register Notice of Intention To Request Clearance of Collection of Information; Opportunity for Public Comment

AGENCY: National Park Service, Interior.

ACTION: Notice and request for comments.

SUMMARY: Under the provisions of the Paperwork Reduction Act of 1995 (Pub. L. 104–13, 44 U.S.C., Chapter 3507) and 5 CFR Part 1320, Reporting and Record Keeping Requirements, the National Park Service (NPS) invites public comments on an extension of a currently approved information collection Office of Management and Budget (OMB) Control # 1024–0231.

The OMB has up to 60 days to approve or disapprove the requested information collection, but may respond after 30 days. Therefore, to ensure maximum consideration, OMB should receive public comments within 30 days of the date on which this notice is published in the **Federal Register**.

The National Park Service published the 60-day **Federal Register** notice to solicit comments on this proposed information collection on April 5, 2010 (75 FR 17152–17153). No comments were received on this notice.

DATES: Public comments on the proposed Information Collection Request (ICR) must be received by July 12, 2010.

ADDRESSES: You may submit comments directly to the Desk Officer for the Department of the Interior (OMB #1024–0231), Office of Information and Regulatory Affairs, OMB by fax at 202/395–5806, or by electronic mail at *OIRA_DOCKET@omb.eop.gov.* Please also send a copy of your comments to Ms. Jo A. Pendry, Chief, Commercial Services Program, National Park Service, 1849 C Street, NW. (2410), Washington, DC 20240, or electronically to *jo_pendry@nps.gov.*

FOR FURTHER INFORMATION CONTACT: Jo A. Pendry, phone: 202–513–7156, fax: 202–371–2090, or at the address above. You are entitled to a copy of the entire ICR package free-of-charge.

SUPPLEMENTARY INFORMATION:

Title: Concession Contracts—36 CFR Part 51.

OMB Control Number: 1024–0231.

Expiration Date of Approval: July 31, 2010.

Type of Request: Revision of a currently approved information collection.

Description of Need: The information is being collected to meet the requirements of Sections 403(7) and (8) of the NPS Concessions Management Improvement Act of 1998 (the Act), concerning the granting of a preferential right to renew a concession contract and Section 405 of the Act regarding the construction of capital improvements by concessioners. The information will be used by the agency in considering appeals concerning preferred offeror determinations and agency review and

APPENDIX B EROSION MODELING

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United States
Department
of Agriculture

Forest Service

Rocky Mountain
Research Station

Research Note
RMRS-RN-23-12-WWW

March 2005

Fuels Planning: Science Synthesis and Integration

Environmental Consequences Fact Sheet: 12

Water Erosion Prediction Project (WEPP) Fuel Management (FuMe) Tool

Rocky Mountain Research Station

Pacific Northwest Research Station

North Central Research Station

Pacific Southwest Research Station

Synthesizing Scientific Information for Fire and Fuels Project Managers

William Elliot
David Hall
USDA Forest Service
Rocky Mountain Research Station
Moscow, ID

Environmental Consequences
Team Leader
Elaine Kennedy Sutherland
USDA Forest Service
Rocky Mountain Research Station
Missoula, MT

Fuels planning: Science synthesis and integration, an interagency research/management partnership to support the Ten-Year Fire Plan, led by Russell T. Graham, RMRS, and Sarah M. McCaffrey, NCRS.

What is WEPP FuMe?

The Water Erosion Prediction Project (WEPP) Fuel Management (FuMe) tool was developed to estimate sediment generated by fuel management activities. WEPP FuMe estimates sediment generated for 12 fuel-related conditions from a single input. The conditions are an undisturbed forest, three severities of wildfire, three severities of prescribed fire, two severities of thinning, and three levels of road traffic.

Intended Users

The tool is designed to be used by erosion specialists for detailed analysis of impacts of proposed fuel treatments, or by fuel management specialists for a quick estimate of potential sedimentation impacts from a given stand treatment.

Intended Uses

WEPP FuMe is intended to be used as a planning tool for:

- Categorical Exclusion justification
- NEPA analysis

Required Inputs

The user must select or specify the attributes of the treated area(s) as listed in table 1.

Table 1—Required inputs. The user can click the "question" buttons on the WEPP FuMe input screen to obtain additional information for each input.

Attribute	Description
Climate	Select nearest weather station from a list, and further specify the latitude and longitude of the site.
Soil texture	Select from a list of four choices.
Road density	Divide the number of miles of road in the watershed where the treatments are located by the area of the watershed.
Length(s) of treated hillslope(s)	The user may wish to analyze several hillslopes that make up the treated area.
Length(s) of untreated buffer(s)	The buffer is that area at the bottom of a hill that is not thinned or burned during a prescribed fire.
Hillslope gradient(s)	Steepness at the top, middle, and bottom of the hillslope; may be obtained with the aid of a GIS.
Time between disturbances	Wildfire return interval, and proposed time between thinning and/or prescribed fire activities.

What the Model Does

WEPP FuMe uses the inputs to carry out the 12 WEPP runs. The results are converted to common units, and long-term annual averages are determined based on the time between disturbances. The results for an initial analysis from the first four hillslope runs and the three road runs are presented in an output table like table 2.

Table 2—Output table presenting predicted sediment yield rates.

Line	Source of sediment	Erosion in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest	0	1	0
2	Wildfire	2534.4	40	63.4
3	Prescribed fire	6.4	20	0.3
4	Thinning	0	20	0.0
5	Low access roads	0.2 to 2.7	1	0.2 to 2.7
6	High access roads	1.1 to 2.8	1	1.1 to 2.8

A narrative is then presented that aids the user in interpreting and reporting on the results. If the user is carrying out a NEPA or similar analysis requiring several options, the tables summarizing all of the runs following the narrative can be used. The **Disturbed WEPP** table (see table 3) contains the results from the first four hillslope runs summarized in the first output table, plus five additional runs to aid in preparing management alternatives. The final column of the **Disturbed WEPP** table describes the inputs for each run. The runs are intended to describe the conditions shown in the table. In all cases, cover means soil cover due to surface vegetative residue and rock.

Figure 1 shows how some of the results may be summarized, in this example comparing a no-action alternative (low traffic roads and high severity wildfire) to a fuel-treatment alternative (high traffic roads, but anticipated moderate severity wildfire). In this example, as shown from table 1, there was no sediment generated by the thinning operation, and little by the prescribed fire.

Table 3—Example of a disturbed WEPP table.

Run	Cover	Buffer	Condition
	percent		
Undisturbed	100	—	Conditions typically found 5 years after a human disturbance, or 10 years after a wildfire
Thinned forest	85–100	yes	Forest following a tractor thinning operation
Prescribed fire	85–100	yes	
High severity	30–45	no	Only condition with water wildfire repellant soils
Lower impact	95–100	yes	For a helicopter or other thinning low impact thinning operation
Higher severity prescribed fire	75–85	no	A dry fall burn
Lower severity	90–100	yes	A damp spring burn prescribed fire
Moderate severity wildfire	50–60	no	
Low severity wildfire	70–80	no	

Figure 1 clearly shows that if fuel treatment reduces the risk of high severity fire, there is a considerable drop in long-term sediment generation. The user may wish to copy and paste the results from each run directly into an analysis document, or the document's appendix.

WEPP FuMe only models hillslope surface erosion processes. It does not model channel processes such as sediment transport and gullying. The interface does not model landslides on disturbed hillslopes or on road networks.

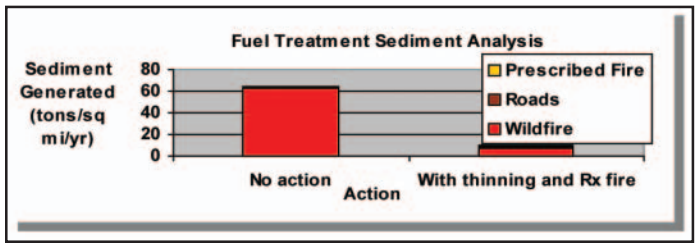

Figure 1—Graphic summary of results.

How to Obtain the Model

WEPP FuMe is an online interface that can be run with any recent Web browser. It can be found at: http://forest.moscowfsl.wsu.edu/fuels/

Environmental Consequences Fact Sheets

Look for fact sheet topics from the Environmental Consequences Team including information about the effects of fire behavior and alternative treatment strategies, Wildlife Response Model, weed responses, riparian systems, soil erosion, restoration objectives, treated spaces, the Fire Effects Information System (FEIS), and the First Order Fire Effects Model (FOFEM).

Fuels Planning: Synthesis and Integration

This fact sheet is one in a series being produced as part of a larger project supported by the USDA Forest Service to synthesize new knowledge and information relevant to fire and fuels management. Fact sheets address topics related to stand structure, environmental impacts, economics, and human responses to these factors. Information in the fact sheets is targeted for the dry forests of the Inland West, but is often applicable across broad regions of the country. For more information, please visit our Web site at: www.fs.fed.us/fire/tech_transfer/synthesis/synthesis_index

The Fuels Planning fact sheets are based on preliminary findings. Information from fact sheets will be synthesized in an upcoming publication.

WEPP FuME **
Fuel Management Erosion Analysis

Climate

*NEWARK CA
DENVER WB AP CO
MOUNT SHASTA CA
SEELEY LAKE RS MT 22.55 +
SEXTON SUMMIT WB OR

Custom Climate

Soil texture

clay loam
silt loam
sandy loam
loam

Road density (mi mi^{-2})

1

Hillslope horizontal length (ft)

		500	Total hillslope
Treated hillslope	490	10	Buffer

Hillslope gradient (%)

Top	Middle	Toe
5	5	5

Disturbance return period (y)

Wildfire	Prescribed fire	Thinning
100	100	20

Run WEPP FuME

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	loam
Hillslope length	500 ft
Hillslope gradient	77 77 77 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	19.2
2	Wildfire	6758.4	100	67.6
3	Prescribed fire	640	100	6.4
4	Thinning	25.6	20	1.3
5	Low access roads	3.4 to 12.8	1	3.4 to 12.8
6	High access roads	11.4 to 18.9	1	11.4 to 18.9

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 19.2 + 67.6 = 86.8 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 86.8 + (3.4 to 12.8) = 90.2 to 99.6 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 25.6 tons of sediment the year

following thinning, and when averaged over the thinning period of once in 20 years, will average about 1.3 ton mi^{-2} y^{-1}. This is an increase of about 1 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 86.8 + 1.3 + (11.4 to 18.9) = 99.5 to 107 ton mi^{-2} y^{-1}. This is an increase of 15 to 23 percent above the background rate, if roads are not considered in the background, or 7 to 10 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 640 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 6.4 ton mi^{-2} y^{-1}. This is an increase of 7 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 86.8 + 6.4 + (3.4 to 12.8) = 96.6 to 106 tons mi^{-2} y^{-1}, or an increase of 11 to 22 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 19.2 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 86.8 + 1.3 + 6.4 + (11.4 to 18.9) = 105.9 to 113.4 ton mi^{-2} y^{-1}, an increase of 22 to 31 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 1868.8 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 18.69 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 18.69 + 20.5 + 6.4 + (11.4 to 18.9) = 56.99 to 64.49 ton mi^{-2} y^{-1}, a decrease of 35 to 37 percent compared to background with roads or 26 to 34 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	77	77	77	77	19.2	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	77	77	77	77	25.6	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	77	77	77	77	640	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	77	77	77	77	6758.4	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	77	77	77	77	25.6	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	77	77	77	77	883.2	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	77	77	77	77	518.4	Lower
low severity fire	low severity fire	50	60	490	10	20	20	77	77	77	77	1868.8	Moder wildfi
low severity fire	low severity fire	70	80	490	10	20	20	77	77	77	77	1075.2	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	7.7	300	13	150	13	77	10	20	3.4	3.5	No t
inveg	native	low	7.7	300	13	150	13	77	10	20	12.8	11.4	Low
outrut	graveled	high	7.7	300	13	150	13	77	10	20	18.9	17.9	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
10:26 am Friday March 4, 2011 Pacific Time
129 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	loam				
Element	**Treatment**	**Gradient (%)**	**Length (ft)**	**Cover (%)**	**Rock (%)**
Upper	20 year old trees	77	490	100	20
		77			
Lower	20 year old trees	77	10	100	20
		77			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.20	in.	runoff from rainfall from	54	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.32	t ac^{-1}	upland erosion rate (0.072 kg m^{-2})		
0.32	t ac^{-1}	sediment leaving profile (10.993 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.57	2.31	2.31
25 year	20.89	1.33	2.28	2.28
10 year	20.60	0.77	1.11	1.11
5 year	18.55	0.34	0.57	0.57
2.5 year	16.02	0.05	0.11	0.11
Average	14.76	0.20	0.32	0.32

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	64 %	
Probability there is erosion	64 %	
Probability there is sediment delivery	64 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:12 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	clay loam
Hillslope length	500 ft
Hillslope gradient	90 90 90 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	51.2
2	Wildfire	4979.2	100	49.8
3	Prescribed fire	672	100	6.7
4	Thinning	51.2	20	2.6
5	Low access roads	3.1 to 11.5	1	3.1 to 11.5
6	High access roads	10.2 to 15.1	1	10.2 to 15.1

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 51.2 + 49.8 = 101 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 101 + (3.1 to 11.5) = 104.1 to 112.5 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 51.2 tons of sediment the year

following thinning, and when averaged over the thinning period of once in 20 years, will average about 2.6 ton mi^{-2} y^{-1}. This is an increase of about 3 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 101 + 2.6 + (10.2 to 15.1) = 113.8 to 118.7 ton mi^{-2} y^{-1}. This is an increase of 13 to 18 percent above the background rate, if roads are not considered in the background, or 6 to 9 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 672 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 6.7 ton mi^{-2} y^{-1}. This is an increase of 7 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 101 + 6.7 + (3.1 to 11.5) = 110.8 to 119.2 tons mi^{-2} y^{-1}, or an increase of 10 to 18 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 51.2 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 101 + 2.6 + 6.7 + (10.2 to 15.1) = 120.5 to 125.4 ton mi^{-2} y^{-1}, an increase of 19 to 24 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 1888 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 18.88 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 18.88 + 53.8 + 6.7 + (10.2 to 15.1) = 89.58 to 94.48 ton mi^{-2} y^{-1}, a decrease of 16 to 14 percent compared to background with roads or 6 to 11 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	90	90	90	90	51.2	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	90	90	90	90	51.2	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	90	90	90	90	672	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	90	90	90	90	4979.2	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	90	90	90	90	32	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	90	90	90	90	934.4	Higher fire
low severity fire	20 year old trees	90	100	490	10	20	20	90	90	90	90	563.2	Lower
low severity fire	low severity fire	50	60	490	10	20	20	90	90	90	90	1888	Moder wildfir
low severity fire	low severity fire	70	80	490	10	20	20	90	90	90	90	1100.8	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	9	300	13	150	13	90	10	20	3.1	3.2	No t
inveg	native	low	9	300	13	150	13	90	10	20	11.5	10.2	Low
outrut	graveled	high	9	300	13	150	13	90	10	20	15.1	14.2	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:14 pm Friday March 4, 2011 Pacific Time
136 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	clay loam				
Element	**Treatment**	**Gradient (%)**	**Length (ft)**	**Cover (%)**	**Rock (%)**
Upper	20 year old trees	90	490	100	20
		90			
Lower	20 year old trees	90	10	100	20
		90			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.22	in.	runoff from rainfall from	41	events
0.01	in.	runoff from snowmelt or winter rainstorm from	1	events
0.25	t ac^{-1}	upland erosion rate (0.056 kg m^{-2})		
0.25	t ac^{-1}	sediment leaving profile (8.569 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	2.58	3.24	3.24
25 year	20.89	2.36	2.06	2.06
10 year	20.60	0.81	0.88	0.88
5 year	18.55	0.28	0.36	0.36
2.5 year	16.02	0.02	0.03	0.02
Average	14.76	0.22	0.25	0.25

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	56 %	
Probability there is erosion	50 %	
Probability there is sediment delivery	56 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
01:44 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	loam
Hillslope length	500 ft
Hillslope gradient	90 90 90 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	25.6
2	Wildfire	7148.8	100	71.5
3	Prescribed fire	672	100	6.7
4	Thinning	32	20	1.6
5	Low access roads	3.9 to 13.6	1	3.9 to 13.6
6	High access roads	12.2 to 21.1	1	12.2 to 21.1

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 25.6 + 71.5 = 97.1 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 97.1 + (3.9 to 13.6) = 101 to 110.7 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 32 tons of sediment the year following

thinning, and when averaged over the thinning period of once in 20 years, will average about 1.6 ton mi^{-2} y^{-1}. This is an increase of about 2 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 97.1 + 1.6 + (12.2 to 21.1) = 110.9 to 119.8 ton mi^{-2} y^{-1}. This is an increase of 14 to 23 percent above the background rate, if roads are not considered in the background, or 8 to 10 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 672 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 6.7 ton mi^{-2} y^{-1}. This is an increase of 7 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 97.1 + 6.7 + (3.9 to 13.6) = 107.7 to 117.4 tons mi^{-2} y^{-1}, or an increase of 11 to 21 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 25.6 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 97.1 + 1.6 + 6.7 + (12.2 to 21.1) = 117.6 to 126.5 ton mi^{-2} y^{-1}, an increase of 21 to 30 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 1984 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 19.84 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 19.84 + 27.2 + 6.7 + (12.2 to 21.1) = 65.94 to 74.84 ton mi^{-2} y^{-1}, a decrease of 32 to 35 percent compared to background with roads or 23 to 32 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	90	90	90	90	25.6	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	90	90	90	90	32	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	90	90	90	90	672	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	90	90	90	90	7148.8	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	90	90	90	90	19.2	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	90	90	90	90	972.8	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	90	90	90	90	556.8	Lower
low severity fire	low severity fire	50	60	490	10	20	20	90	90	90	90	1984	Moder wildfir
low severity fire	low severity fire	70	80	490	10	20	20	90	90	90	90	1152	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	9	300	13	150	13	90	10	20	3.9	4.1	No t
inveg	native	low	9	300	13	150	13	90	10	20	13.6	12.2	Low
outrut	graveled	high	9	300	13	150	13	90	10	20	21.1	19.9	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:15 pm Friday March 4, 2011 Pacific Time
137 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	loam				
Element	Treatment	Gradient (%)	Length (ft)	Cover (%)	Rock (%)
Upper	20 year old trees	90	490	100	20
		90			
Lower	20 year old trees	90	10	100	20
		90			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.20	in.	runoff from rainfall from	54	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.35	t ac^{-1}	upland erosion rate (0.078 kg m^{-2})		
0.35	t ac^{-1}	sediment leaving profile (11.862 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.58	2.48	2.48
25 year	20.89	1.33	2.34	2.34
10 year	20.60	0.77	1.17	1.18
5 year	18.55	0.34	0.60	0.60
2.5 year	16.02	0.06	0.12	0.12
Average	14.76	0.20	0.35	0.35

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	64 %	
Probability there is erosion	64 %	
Probability there is sediment delivery	64 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:16 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	silt loam
Hillslope length	500 ft
Hillslope gradient	90 90 90 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	44.8
2	Wildfire	7641.6	100	76.4
3	Prescribed fire	1452.8	100	14.5
4	Thinning	76.8	20	3.8
5	Low access roads	3.7 to 12.2	1	3.7 to 12.2
6	High access roads	10.6 to 20.2	1	10.6 to 20.2

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 44.8 + 76.4 = 121.2 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 121.2 + (3.7 to 12.2) = 124.9 to 133.4 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 76.8 tons of sediment the year

following thinning, and when averaged over the thinning period of once in 20 years, will average about 3.8 ton mi^{-2} y^{-1}. This is an increase of about 3 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 121.2 + 3.8 + (10.6 to 20.2) = 135.6 to 145.2 ton mi^{-2} y^{-1}. This is an increase of 12 to 20 percent above the background rate, if roads are not considered in the background, or 9 to 9 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 1452.8 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 14.5 ton mi^{-2} y^{-1}. This is an increase of 12 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 121.2 + 14.5 + (3.7 to 12.2) = 139.4 to 147.9 tons mi^{-2} y^{-1}, or an increase of 15 to 22 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 44.8 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 121.2 + 3.8 + 14.5 + (10.6 to 20.2) = 150.1 to 159.7 ton mi^{-2} y^{-1}, an increase of 24 to 32 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 3872 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 38.72 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 38.72 + 48.6 + 14.5 + (10.6 to 20.2) = 112.42 to 122.02 ton mi^{-2} y^{-1}, a decrease of 9 to 10 percent compared to background with roads or -1 to 7 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

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Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	90	90	90	90	44.8	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	90	90	90	90	76.8	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	90	90	90	90	1452.8	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	90	90	90	90	7641.6	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	90	90	90	90	57.6	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	90	90	90	90	2028.8	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	90	90	90	90	1273.6	Lower
low severity fire	low severity fire	50	60	490	10	20	20	90	90	90	90	3872	Moder wildfir
low severity fire	low severity fire	70	80	490	10	20	20	90	90	90	90	2259.2	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	9	300	13	150	13	90	10	20	3.7	3.7	No t
inveg	native	low	9	300	13	150	13	90	10	20	12.2	10.6	Low
outrut	graveled	high	9	300	13	150	13	90	10	20	20.2	18.7	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:17 pm Friday March 4, 2011 Pacific Time
138 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	silt loam				
Element	**Treatment**	**Gradient (%)**	**Length (ft)**	**Cover (%)**	**Rock (%)**
Upper	20 year old trees	90	490	100	20
		90			
Lower	20 year old trees	90	10	100	20
		90			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.18	in.	runoff from rainfall from	43	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.45	t ac^{-1}	upland erosion rate (0.1 kg m^{-2})		
0.45	t ac^{-1}	sediment leaving profile (15.282 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.70	4.42	4.42
25 year	20.89	1.59	3.22	3.22
10 year	20.60	0.69	1.57	1.57
5 year	18.55	0.30	0.78	0.78
2.5 year	16.02	0.02	0.07	0.07
Average	14.76	0.18	0.45	0.45

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	58 %	
Probability there is erosion	58 %	
Probability there is sediment delivery	58 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:17 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	loam
Hillslope length	500 ft
Hillslope gradient	90 90 90 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	25.6
2	Wildfire	7148.8	100	71.5
3	Prescribed fire	672	100	6.7
4	Thinning	32	20	1.6
5	Low access roads	3.9 to 13.6	1	3.9 to 13.6
6	High access roads	12.2 to 21.1	1	12.2 to 21.1

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 25.6 + 71.5 = 97.1 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 97.1 + (3.9 to 13.6) = 101 to 110.7 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 32 tons of sediment the year following

thinning, and when averaged over the thinning period of once in 20 years, will average about 1.6 ton mi^{-2} y^{-1}. This is an increase of about 2 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 97.1 + 1.6 + (12.2 to 21.1) = 110.9 to 119.8 ton mi^{-2} y^{-1}. This is an increase of 14 to 23 percent above the background rate, if roads are not considered in the background, or 8 to 10 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 672 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 6.7 ton mi^{-2} y^{-1}. This is an increase of 7 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 97.1 + 6.7 + (3.9 to 13.6) = 107.7 to 117.4 tons mi^{-2} y^{-1}, or an increase of 11 to 21 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 25.6 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 97.1 + 1.6 + 6.7 + (12.2 to 21.1) = 117.6 to 126.5 ton mi^{-2} y^{-1}, an increase of 21 to 30 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 1984 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 19.84 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 19.84 + 27.2 + 6.7 + (12.2 to 21.1) = 65.94 to 74.84 ton mi^{-2} y^{-1}, a decrease of 32 to 35 percent compared to background with roads or 23 to 32 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	90	90	90	90	25.6	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	90	90	90	90	32	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	90	90	90	90	672	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	90	90	90	90	7148.8	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	90	90	90	90	19.2	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	90	90	90	90	972.8	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	90	90	90	90	556.8	Lower
low severity fire	low severity fire	50	60	490	10	20	20	90	90	90	90	1984	Moder wildfir
low severity fire	low severity fire	70	80	490	10	20	20	90	90	90	90	1152	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	9	300	13	150	13	90	10	20	3.9	4.1	No t
inveg	native	low	9	300	13	150	13	90	10	20	13.6	12.2	Low
outrut	graveled	high	9	300	13	150	13	90	10	20	21.1	19.9	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:15 pm Friday March 4, 2011 Pacific Time
137 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	loam				
Element	Treatment	Gradient (%)	Length (ft)	Cover (%)	Rock (%)
Upper	20 year old trees	90	490	100	20
		90			
Lower	20 year old trees	90	10	100	20
		90			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.20	in.	runoff from rainfall from	54	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.35	t ac^{-1}	upland erosion rate (0.078 kg m^{-2})		
0.35	t ac^{-1}	sediment leaving profile (11.862 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.58	2.48	2.48
25 year	20.89	1.33	2.34	2.34
10 year	20.60	0.77	1.17	1.18
5 year	18.55	0.34	0.60	0.60
2.5 year	16.02	0.06	0.12	0.12
Average	14.76	0.20	0.35	0.35

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	64 %	
Probability there is erosion	64 %	
Probability there is sediment delivery	64 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:16 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	silt loam
Hillslope length	500 ft
Hillslope gradient	66 66 66 % *
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

* Hillslopes with greater than 50% gradient may be prone to mass failure.

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	38.4
2	Wildfire	6764.8	100	67.6
3	Prescribed fire	1248	100	12.5
4	Thinning	70.4	20	3.5
5	Low access roads	2.7 to 10.1	1	2.7 to 10.1
6	High access roads	8.9 to 16.0	1	8.9 to 16.0

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 38.4 + 67.6 = 106 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 106 + (2.7 to 10.1) = 108.7 to 116.1 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 70.4 tons of sediment the year

following thinning, and when averaged over the thinning period of once in 20 years, will average about 3.5 ton mi^{-2} y^{-1}. This is an increase of about 3 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 106 + 3.5 + (8.9 to 16.0) = 118.4 to 125.5 ton mi^{-2} y^{-1}. This is an increase of 12 to 18 percent above the background rate, if roads are not considered in the background, or 8 to 9 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 1248 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 12.5 ton mi^{-2} y^{-1}. This is an increase of 12 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 106 + 12.5 + (2.7 to 10.1) = 121.2 to 128.6 tons mi^{-2} y^{-1}, or an increase of 14 to 21 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 38.4 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 106 + 3.5 + 12.5 + (8.9 to 16.0) = 130.9 to 138 ton mi^{-2} y^{-1}, an increase of 23 to 30 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 3424 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 34.24 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 34.24 + 41.9 + 12.5 + (8.9 to 16.0) = 97.54 to 104.64 ton mi^{-2} y^{-1}, a decrease of 10 to 10 percent compared to background with roads or 1 to 8 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Conc
20 year old trees	20 year old trees	100	100	490	10	20	20	66	66	66	66	38.4	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	66	66	66	66	70.4	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	66	66	66	66	1248	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	66	66	66	66	6764.8	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	66	66	66	66	51.2	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	66	66	66	66	1785.6	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	66	66	66	66	1100.8	Lower
low severity fire	low severity fire	50	60	490	10	20	20	66	66	66	66	3424	Moder wildfi
low severity fire	low severity fire	70	80	490	10	20	20	66	66	66	66	1990.4	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	6.6	300	13	132	13	66	10	20	2.7	2.7	No t
inveg	native	low	6.6	300	13	132	13	66	10	20	10.1	8.9	Low
outrut	graveled	high	6.6	300	13	132	13	66	10	20	16.0	14.9	High

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WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:22 pm Friday March 4, 2011 Pacific Time
139 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	silt loam				
Element	**Treatment**	**Gradient (%)**	**Length (ft)**	**Cover (%)**	**Rock (%)**
Upper	20 year old trees	66	490	100	20
		66			
Lower	20 year old trees	66	10	100	20
		66			

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.17	in.	runoff from rainfall from	43	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.38	t ac^{-1}	upland erosion rate (0.086 kg m^{-2})		
0.38	t ac^{-1}	sediment leaving profile (13.096 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.70	4.02	4.02
25 year	20.89	1.58	2.87	2.87
10 year	20.60	0.68	1.39	1.39
5 year	18.55	0.29	0.72	0.72
2.5 year	16.02	0.02	0.06	0.06
Average	14.76	0.17	0.38	0.38

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	58 %	
Probability there is erosion	58 %	
Probability there is sediment delivery	58 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:22 pm Friday March 4, 2011 Pacific Time

WEPP FuME **
Fuel Management Erosion Analysis Results

Climate	**NEWARK CA**
Soil texture	silt loam
Hillslope length	500 ft
Hillslope gradient	5 5 5 %
Buffer length	10 ft
Wildfire cycle	100 y
Prescribed fire cycle	100 y
Thinning cycle	20 y
Road density	1 mi mi^{-2}

Running **Disturbed WEPP** for Undisturbed forest ... Thinned forest ... Prescribed burn ... Wildfire ... Lower thinning ... Higher Rx fire ... Lower Rx fire ... Moderate wildfire ... Low wildfire ...
Running **WEPP:Road** for No traffic ... Low traffic ... High traffic ...

Output summary based on 50 years of possible weather

Line	Source of sediment	Sediment delivery in year of disturbance (ton mi^{-2})	Return period of disturbance (y)	"Average" annual hillslope sedimentation (ton mi^{-2} y^{-1})
1	Undisturbed forest		1	0
2	Wildfire	716.8	100	7.2
3	Prescribed fire	70.4	100	0.7
4	Thinning	6.4	20	0.3
5	Low access roads	0.8 to 1.0	1	0.8 to 1.0
6	High access roads	0.9 to 2.8	1	0.9 to 2.8

Summary of Analysis

The output summary table presents the predicted sediment yield rates from seven runs with the WEPP model. The outputs from those runs were converted to common units of ton mi^{-2} y^{-1}. From these runs, several key watershed sedimentation values can be estimated.

Background sedimentation. The background sedimentation rate -- the rate that will occur with no action -- can be estimated either with or without roads. In the absence of roads, the background sedimentation rate is erosion from undisturbed forest plus erosion from wildfire. This value is the sum of lines 1 and 2, or 0 + 7.2 = 7.2 ton mi^{-2} y^{-1}. If the existing low access road network is included in the background sediment rate, then the background rate will be the sum of lines 1, 2, and 5, or 7.2 + (0.8 to 1.0) = 8 to 8.2 ton mi^{-2} y^{-1}, depending on what percent of the road network crosses live water during major runoff events.

Thinning effects. From the summary table, line 4, thinning will generate 6.4 tons of sediment the year following thinning, and when averaged over the thinning period of once in 20 years, will average about 0.3 ton mi^{-2} y^{-1}. This is an increase of about 4 percent above background without roads.

In order to carry out the thinning operation, however, traffic on the roads will have to be increased to the high access level to support the traffic associated with an ongoing thinning operation in the watershed. The total sediment yield from the watershed will then be the background value plus that from thinning and from high access roads for a total of 7.2 + 0.3 + (0.9 to 2.8) = 8.4 to 10.3 ton mi^{-2} y^{-1}. This is an increase of 17 to 43 percent above the background rate, if roads are not considered in the background, or 26 to 5 percent if the road network is considered in the background rate.

Further comparisons can be made by assuming that thinning will eliminate wildfire from the watershed, thus reducing the wildfire sedimentation value, or that thinning will lead to a less severe wildfire, and the moderate or low severity fire sedimentation rate from the table below can be substituted for the wildfire erosion rate in line 2.

Prescribed fire effects. From the summary table, line 3, prescribed fire will generate 70.4 ton mi^{-2} the year of the prescribed fire, or when averaged over the prescribed fire return period of 100 y, it will generate 0.7 ton mi^{-2} y^{-1}. This is an increase of 10 percent above background. As there will be no need for heavy traffic to carry out the prescribed burn, there is no increase in sedimentation from the road network. For a watershed with an active prescribed fire program, the total erosion will then be the background rate plus the low access road rate and the average erosion from prescribed fire, or 7.2 + 0.7 + (0.8 to 1.0) = 8.7 to 8.9 tons mi^{-2} y^{-1}, or an increase of 21 to 24 percent above background, if roads are not included in the background value.

If the prescribed fire eliminates the risk of wildfire, the background erosion rate will need to be set to 0 (line 1 of the outputs summary) for the analysis. Alternatively, the impact of the prescribed fire program may be to reduce the intensity of the wildfire, in which case, the sedimentation associated with a moderate or low severity fire from the following table can be substituted for the wildfire prediction for the analysis.

Combined thinning and prescribed fire effects. The combined effects of thinning and prescribed fire can be determined by summing up the background rate, the thinning rate, the prescribed fire rate, and the high access road rate. In this case, this leads to a total predicted erosion rate of 7.2 + 0.3 + 0.7 + (0.9 to 2.8) = 9.1 to 11 ton mi^{-2} y^{-1}, an increase of 26 to 53 percent above the background erosion rate without roads.

If this intensive fuel management scenario can reduce the severity of wildfire in the watershed, then the moderate severity fire sedimentation value of 307.2 ton mi^{-2} can be substituted for the wildfire erosion rate once every 100 years to give an average value of 3.07 ton mi^{-2} y^{-1}. Using this value to determine the total impact of fuel management gives 3.07 + 0.3 + 0.7 + (0.9 to 2.8) = 4.97 to 6.87 ton mi^{-2} y^{-1}, a decrease of 16 to 38 percent compared to background with roads or 5 to 31 percent compared to background without roads.

Road Impacts. The range of values given for road sedimentation represent the amount of sediment delivered across the buffer, and the amount delivered to a stream crossing. Roads with buffers greater than 10 ft will generate less sediment. The summary table shows that roads generate significant amounts of sediment within a watershed, even when traffic is low. Road management strategies -- including minimizing rutting, minimizing stream crossings, and maximizing the use of buffers between the road and the stream -- are well established to minimize sedimentation. The WEPP:Road interface can be used to evaluate the impacts of some of these improved practices. Another alternative to reduce sedimentation from the road network is to reduce the road density within the watershed by removing roads that are no longer needed with modern timber operations. Watershed managers may wish to offset the increase in sediment associated with fuel management with a decrease in sediment from improved road management or a reduction in road density.

Multiple Hillslopes. This analysis was for a single hillslope. Users are advised to run this simulation for a number of different hillslopes within the watershed, and to report a range of sedimentation rates in the output table before completing the analysis. Results from each hillslope can be copied and pasted into a word processor or spreadsheet to serve as a log for a series of runs.

For further information, refer to the documentation.

Details of Inputs and Outputs

Refer to the documentation for details on the applications for the five additional runs listed in this table, but not used in the initial analyses.

Inputs (blue) and results (green) for individual Disturbed WEPP runs

Disturbed WEPP

Upper element treatment	Lower element treatment	Upper cover (%)	Lower cover (%)	Upper length (ft)	Lower length (ft)	Upper rock (%)	Lower rock (%)	Upper top gradient (%)	Upper mid gradient (%)	Lower mid gradient (%)	Lower toe gradient (%)	Sediment yield (t mi^{-2})	Con
20 year old trees	20 year old trees	100	100	490	10	20	20	5	5	5	5	0	Undist forest
5 year old trees	20 year old trees	85	100	490	10	20	20	5	5	5	5	6.4	Thinne forest
low severity fire	20 year old trees	85	100	490	10	20	20	5	5	5	5	70.4	Prescr burn
high severity fire	high severity fire	30	40	490	10	20	20	5	5	5	5	716.8	Wildfi
5 year old trees	20 year old trees	95	100	490	10	20	20	5	5	5	5	0	Lower thinni
low severity fire	low severity fire	75	85	490	10	20	20	5	5	5	5	108.8	Highe fire
low severity fire	20 year old trees	90	100	490	10	20	20	5	5	5	5	51.2	Lower
low severity fire	low severity fire	50	60	490	10	20	20	5	5	5	5	307.2	Moder wildfi
low severity fire	low severity fire	70	80	490	10	20	20	5	5	5	5	134.4	Low w

Inputs (blue) and results (green) for individual WEPP:Road runs

WEPP:Road

Design ('ib', 'iv', 'or', 'ou')	Road surface ('n', 'g', 'p')	Traffic level ('h', 'l', 'n')	Road gradient (%)	Road length (ft)	Road width (ft)	Fill gradient (%)	Fill length (ft)	Buffer gradient (%)	Buffer length (ft)	Rock fragment (%)	Sediment yield from road (t mi^{-2}y^{-1})	Sediment yield from buffer (t mi^{-2} y^{-1})	Cor
inveg	native	none	0.5	300	13	10	13	5	10	20	0.9	0.8	No t
inveg	native	low	0.5	300	13	10	13	5	10	20	1.0	0.9	Low
outrut	graveled	high	0.5	300	13	10	13	5	10	20	2.8	2.6	High

WEPP FuME v. 2006.04.27 (for review only) Interface by David Hall and Elena Velasquez Model by Bill Elliot and Pete Robichaud
USDA Forest Service, Rocky Mountain Research Station, Moscow, ID 83843
02:23 pm Friday March 4, 2011 Pacific Time
140 WEPP FuME runs since release, December 2004

Disturbed WEPP Results

User inputs

Location	NEWARK CA				
Soil texture	silt loam				
Element	**Treatment**	**Gradient (%)**	**Length (ft)**	**Cover (%)**	**Rock (%)**
Upper	20 year old trees	5 5	490	100	20
Lower	20 year old trees	5 5	10	100	20

Mean annual averages for 50 years

14.76	in.	precipitation from	2654	storms
0.08	in.	runoff from rainfall from	37	events
0.00	in.	runoff from snowmelt or winter rainstorm from	0	events
0.02	t ac^{-1}	upland erosion rate (0.004 kg m^{-2})		
0.02	t ac^{-1}	sediment leaving profile (0.675 kg m^{-1} width)		

Return period analysis based on 50 years of climate

Return Period	Precipitation (in.)	Runoff (in.)	Erosion (t ac^{-1})	Sediment (t ac^{-1})
50 year	24.11	1.68	0.38	0.38
25 year	20.89	0.79	0.20	0.20
10 year	20.60	0.28	0.07	0.07
5 year	18.55	0.03	0.00	0.00
2.5 year	16.02	0.00	0.00	0.00
Average	14.76	0.08	0.02	0.02

Probabilities of occurrence first year following disturbance based on 50 years of climate

Probability there is runoff	52 %	
Probability there is erosion	24 %	
Probability there is sediment delivery	50 %	

Return to Input Screen

[slope | soil | vegetation | weather | extended | response]

Disturbed WEPP Results v. 2004.07.01
based on WEPP version 2000.100, CLIGEN * version 4.31 *
`http://forest.moscowfsl.wsu.edu/fswepp`
02:24 pm Friday March 4, 2011 Pacific Time

APPENDIX C EXCERPT FROM THE SAN FRANCISCO BASIN PLAN

Excerpt from the San Francisco Basin Plan

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Table 2-1: Existing and Potential Beneficial Uses of Water Bodies in the San Francisco Bay Region

MARIN COASTAL BASIN

	Human Consumptive Uses						Aquatic Life Uses									Wildlife Use	Recreational Uses		
COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
MARIN COUNTY																			
Pacific Ocean (Marin)					E		E	E			E	E	E	E		E	E	E	E
Abbotts Lagoon											E					E	E	E	
Drakes Estero							E	E			E	E	E	E		E	E	E	
East Schooner Creek								E	E			E	E	E	E	E	E	E	
Home Ranch Creek									E			E	E	E	E	E	E	E	
Limantour Estero							E	E			E	E	E	E		E	E	E	
Glenbrook Creek									E			E	E		E	E	E	E	
Muddy Hollow Creek									E			E	E	E	E	E	E	E	
Santa Maria Creek (Marin)									E			E	E	E	E	E	E	E	
Coast Creek								E	E			E	E	E	E	E	E	E	
Alamere Creek									E							E	E	E	
Wildcat Lake															E	E	E	E	
Crystal Lake									E					E	E	E	E	E	
Bass Lake							E								E	E	E	E	
Pelican Lake															E	E	E	E	
Arroyo Hondo (Marin)		E							E						E	E	E	E	
Bolinas Lagoon							E	E			E	E	E	E		E	E	E	E
Pine Gulch Creek		E							E			E	E	E	E	E	E	E	
Copper Mine Gulch Creek									E			E	E	E	E	E	E	E	
Wilkins Gulch Creek									E			E	E		E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

MARIN COASTAL BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
MARIN COUNTY, continued																			
Pike County Gulch Creek									E						E	E	E	E	
Morses Gulch Creek									E			E	E	E	E	E	E	E	
McKinnan Gulch Creek									E			E	E	E	E	E	E	E	
Stinson Gulch Creek		E							E			E	E	E	E	E	E	E	
Easkoot Creek									E			E	E	E	E	E	E	E	
Webb Creek		E							E				E		E	E	E	E	
Lone Tree Creek															E	E	E	E	
Redwood Creek (Marin)	E	E	E					E	E			E	E	E	E	E	E	E	
Green Gulch Creek									E			E	E	E	E	E	E	E	
Tennessee Valley Creek															E	E	E	E	
Rodeo Lagoon							E		E		E		E			E	E	E	
Rodeo Creek									E				E	E	E	E	E	E	
Tomales Bay							E	E			E	E	E	E		E	E	E	E
Millerton Gulch									E				E		E	E	E	E	
Grand Canyon Creek															E	E	E	E	
Tomasini Canyon Creek									E			E	E	E	E	E	E	E	
Walker Creek							E		E			E	E	E	E	E	E	E	
Chileno Creek									E			E	E		E	E	E	E	
Laguna Lake															E	E	E*	E	
Frink Canyon Creek									E			E	E		E	E	E	E	
Verde Canyon Creek									E			E	E		E	E	E	E	
Salmon Creek (Marin)									E			E	E		E	E	E	E	
Soulajule Reservoir		E	E				E								E	E	E*	E	
Arroyo Sausal			E						E				E		E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
MARIN COUNTY, continued																			
Lagunitas Creek	E	E	E						E			E	E	E	E	E	E	E	
Haggerty Gulch Creek			E						E			E	E	E	E	E	E	E	
Bear Valley Creek			E						E			E	E	E	E	E	E	E	
Olema Creek			E						E			E	E	E	E	E	E	E	
Nicasio Creek		E	E						E			E		E	E	E	E	E	
Nicasio Reservoir		E	E				E		P					E	E	E	E*	E	
Halleck Creek			E						E						E	E	E	E	
Devils Gulch Creek									E			E	E	E	E	E	E	E	
San Geronimo Creek									E			E	E	E	E	E	E	E	
Woodacre Creek									E			E	E		E	E	E	E	
Kent Lake		E					E		E					E	E	E	E*	E	
Big Carson Creek			E						E							E	E	E	
Alpine Lake		E					E		E					E	E	E	E*	E	
Cataract Creek			E						E							E	E	E	
Bon Tempe Lake		E							E					E	E	E	E*	E	
Lake Lagunitas		E					E		E					E	E	E	E*	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SAN MATEO COASTAL BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
	← Human Consumptive Uses →						← Aquatic Life Uses →									Wildlife Use	Recreational Uses		
SAN FRANCISCO COUNTY																			
Pacific Ocean (San Mateo, San Francisco Counties)					E		E	E			E	E	E	E		E	E[1]	E	E
Lake Merced		P					E		E					E	E	E	E	E	
SAN MATEO COUNTY																			
Milagra Creek												E	E		E	E	E	E	
Calera Creek (San Mateo)													E		E	E	E	E	
San Pedro Creek		E							E			E	E	E	E	E	E	E	
San Vicente Creek	E	E							E			E	E	E	E	E	E	E	
Denniston Creek	E	E							E			E	E	E	E	E	E	E	
Arroyo de en Medio									E						E	E	E	E	
Frenchmans Creek	E								E			E	E	E	E	E	E	E	
Pilarcitos Creek	E	E							E			E	E	E	E	E	E	E	
Arroyo Leon Creek									E						E	E	E	E	
Mills Creek (San Mateo)									E				E		E	E	E	E	
Apanolio Creek									E				E	E	E	E	E	E	
Corinda Los Trancos Creek									E				E		E	E	E	E	
Pilarcitos Reservoir		E							E				E	E	E	E	E*	E	
Purisima Creek	E								E			E	E	E		E	E	E	
Lobitos Creek	E								E			E	E	E		E	E	E	
Tunitas Creek	E	E							E			E	E	E	E	E	E	E	
San Gregorio Creek	E								E			E	E	E	E	E	E	E	
Clear Creek									E						E	E	E	E	
El Corte de Madera Creek									E			P	E	P	E	E	E	E	
Bogess Creek									E			E	E	E	E	E	E	E	
Harrington Creek									E			E	E	E	E	E	E	E	
La Honda Creek									E			E	E	E	E	E	E	E	

[1] REC-1 applies within a zone bounded by the shoreline and a distance of 1000 feet from the shoreline or the 30-foot depth contour, whichever is further from the shoreline. This distance is consistent with the applicability of water-contact standards in the Water Quality Plan for the Ocean Waters of California.

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SAN MATEO COASTAL BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PRO	COMM	SHELL	COLD	EST	MAR	MIG	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SAN MATEO COUNTY, continued																			
Woodruff Creek									E						E	E	E	E	
Woodhams Creek									E						E	E	E	E	
Mindego Creek									E				E	E	E	E	E	E	
Alpine Creek									E			E	E	E	E	E	E	E	
Pomponio Creek	E								E			E	E	E	E	E	E	E	
Pomponio Reservoir									E						E	E	E	E	
Pescadero Creek	E	E							E			E	E	E	E	E	E	E	
Honsinger Creek									E				E		E	E	E	E	
McCormick Creek									E			E	E	E	E	E	E	E	
Hoffman Creek									E				E			E	E	E	
Jones Gulch Creek									E						E	E	E	E	
Tarwater Creek									E			E	E	E	E	E	E	E	
Peters Creek									E				E	E	E	E	E	E	
Lambert Creek									E				E	E	E	E	E	E	
Fall Creek									E						E	E	E	E	
Slate Creek									E				E	E	E	E	E	E	
Oil Creek									E			E	E	E	E	E	E	E	
Little Boulder Creek									E				E		E	E	E	E	
Waterman Creek									E				E	E	E	E	E	E	
Butano Creek									E			E	E		E	E	E	E	
Little Butano Creek									E				E	E	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

CENTRAL BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-1	NAV
	Human Consumptive Uses								Aquatic Life Uses							Wildlife Use	Recreational Uses		
SAN FRANCISCO COUNTY																			
Golden Gate Channel							E				E	E	E	E		E	E	E	E
San Francisco Bay Central					E	E	E	E		E		E	E	E		E	E	E	E
Crissy Field Lagoon										E						E	E	E	
Golden Gate Park Lakes															E	E		E	
Lobos Creek		E												E	E	E	E	E	
Mountain Lake															E	E	E	E	
MARIN COUNTY																			
San Rafael Creek									E						E	E	E	E	E
Corte Madera Creek							E		E			E	E	E	E	E	E	E	E
Larkspur Creek									E				E	E	E	E	E	E	
Tamalpais Creek									E			E	E	E	E	E	E	E	
Ross Creek (Marin)									E			E	E	E	E	E	E	E	
Phoenix Lake		E					E		E				E	E	E	E	E*	E	
Phoenix Creek			E						E						E	E	E	E	
Bill Williams Creek			E						E					E	E	E	E	E	
Sleepy Hollow Creek									E			E	E	E	E	E	E	E	
San Anselmo Creek									E			E	E	E	E	E	E	E	
Fairfax Creek									E					E	E	E	E	E	
Cascade Creek									E			E	E	E		E	E	E	
Richardson Bay					E		E	E		E		E	E	E		E	E	E	E
Arroyo Corte Madera Del Presidio								E	E			E	E	E	E	E	E	E	
Warner Creek (Mill Valley, Marin)									E			E	E	E	E	E	E	E	
Old Mill Creek									E			E	E	E	E	E	E	E	
Willow Reed Creek									E				E	E	E	E	E	E	
Coyote Creek (Marin)									E						E	E	E	E	
Nyhan Creek									E						E	E	E	E	
ALAMEDA COUNTY																			
Berkeley Aquatic Park Lagoon										E		E		P		E	E	E	
Lake Temscal							E		E					E	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

CENTRAL BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	RED-2	NAV
ALAMEDA COUNTY, continued																			
Temescal Creek									E						E	E	E	E	
Claremont Creek															E	E	E	E	
Strawberry Creek															E	E	E	E	
Codornices Creek									E			E	E	E	E	E	E	E	
Village Creek															E	E	E	E	
Capistrano Creek															E	E	E	E	
CONTRA COSTA COUNTY																			
Cerrito Creek															E	E	E	E	
Baxter Creek															E	E	E	E	
Richmond Inner Harbor							E			E						E	E	E	E

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SOUTH BAY BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
	Human Consumptive Uses						Aquatic Life Uses									Wildlife Use	Recreational Uses		
SAN FRANCISCO COUNTY																			
San Francisco Bay Lower					E		E	E		E		E	E	E		E	E	E	E
Mission Creek (San Francisco)							E			E						E	E	E	E
Central Basin							E			E						E	E	E	E
Islais Creek, tidal							E			E						E	E	E	E
India Basin							E			E						E	E	E	E
South Basin							E			E						E	E	E	E
Yosemite Creek							E			E						E	E	E	
SAN MATEO COUNTY																			
Brisbane Lagoon										E						E	E	E	
Guadalupe Canyon Creek															E	E	E	E	
Colma Creek															E	E	E	E	
San Bruno Creek															E	E	E	E	
Mills Creek															E	E	E	E	
Easton Creek															E	E	E	E	
Burlingame Lagoon										E						E	E	E	
Anza Lagoon										E						E	E	E	
Sanchez Creek															E	E	E	E	
Cherry Canyon Creek															E	E	E	E	
San Mateo Creek			E						E			E	E	E	E	E	E	E	
Polhemus Creek									E						E	E	E	E	
Lower Crystal Springs Reservoir		E							E				E	E	E	E	E*	E	
Upper Crystal Springs Reservoir		E							E				E	E	E	E	E*	E	
San Andreas Creek			E						E						E	E	E	E	
San Andreas Reservoir		E							E				E	E	E	E	E*	E	
Marina Lagoon										E						E	E	E	
Seal Slough										E			E			E	E	E	
Leslie Creek															E	E	E	E	
Borel Creek															E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SOUTH BAY BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SAN MATEO COUNTY, continued																			
O'Neill Slough										E						E	E	E	
Foster City Lagoon										E						E	E	E	
Belmont Slough										E			E	E		E	E	E	
Belmont Creek															E	E	E	E	
Laurel Creek (San Mateo)															E	E	E	E	
Bay Slough (San Mateo)										E			E			E	E	E	
Steinberger Slough										E			E			E	E	E	
Corkscrew Slough										E			E			E	E	E	
Smith Slough (San Mateo)										E			E			E	E	E	
Pulgas Creek															E	E	E	E	
Cordilleras Creek															E	E	E	E	
Redwood Slough										E			E			E	E	E	E
Redwood Creek (San Mateo)															E	E	E	E	
Arroyo Ojo de Agua															E	E	E	E	
Westpoint Slough										E			E			E	E	E	
Atherton Creek															E	E	E	E	
Ravenswood Slough										E			E			E	E	E	
ALAMEDA COUNTY																			
Oakland Inner Harbor										E						E	E	E	E
Merritt Channel							E			E						E	E	E	
Lake Merritt							E	E		E				E	E	E	E	E	
Glen Echo Creek															E	E	E	E	
Sausal Creek (Alameda)									E				E	E	E	E	E	E	
Peralta Creek															E	E	E	E	
Lion Creek									E						E	E	E	E	
Arroyo Viejo									E						E	E	E	E	
Rifle Range Creek															E	E	E	E	
San Leandro Bay							E			E		E	E			E	E	E	E
Lower San Leandro Creek			E						E			E	E	E	E	E	E	E	
Lake Chabot (Alameda)		E					E		E					E	E	E	E*	E	
Grass Valley Creek			E						E						E	E	E	E	
Upper San Leandro Creek			E						E			P		P	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SOUTH BAY BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
ALAMEDA COUNTY, continued																			
Upper San Leandro Reservoir		E							E					E	E	E	E*	P	
Kaiser Creek			E						E					E	E	E	E	E	
Buckhorn Creek			E						E					E	E	E	E	E	
Redwood Creek (Alameda)			E						E					E	E	E	E	E	
Moraga Creek (in Contra Costa Co.)			E						E					E	E	E	E	E	
Estudillo Canal															E	E	E	E	
San Lorenzo Creek		E	E	E					E			E		E	E	E	E	E	
Don Castro Reservoir							E		E					E	E	E	E	E	
Castro Valley Creek									E				E		E	E	E	E	
Crow Creek									E			E	E	E	E	E	E	E	
Cull Creek									E				E	E	E	E	E	E	
Cull Canyon Reservoir							E		E					E	E	E	E	E	
Bolinas Creek									E						E	E	E	E	
Norris Creek									E						E	E	E	E	
Palomares Creek									E			E		E	E	E	E	E	
Eden Canyon Creek									E						E	E	E	E	
Hollis Creek									E				E		E	E	E	E	
Sulphur Creek (west Alameda)															E	E	E	E	
Mount Eden Creek										E						E	E	E	
Old Alameda Creek										E						E	E	E	
Ward Creek															E	E	E	E	
Zeile Creek															E	E	E	E	
Alameda Creek Quarry Ponds				E			E		E						E	E	E	E	
Coyote Hills Slough										E		E	E	E		E	E	E	
Alameda Creek	E			E			E		E			E	E	E	E	E	E	E	
Crandall Creek															E	E	E	E	
Dry Creek (Alameda, low in watershed)													E		E	E	E	E	
Stonybrook Creek									E			E	E	E	E	E	E	E	
Sinbad Creek									E			E	E	E	E	E	E	E	
San Antonio Creek (Alameda)			E						E				E	E	E	E	E*	E	
San Antonio Reservoir		E							E				E	E	E	E	E*	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SOUTH BAY BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
ALAMEDA COUNTY, continued																			
Indian Creek (central Alameda)			E						E				E	E	E	E	E*	E	
La Costa Creek			E						E				E	E	E	E	E	E	
Arroyo de la Laguna				E					E			E		E	E	E	E	E	
Vallecitos Creek															E	E	E	E	
Happy Valley Creek															E	E	E	E	
Sycamore Creek															E	E	E	E	
Arroyo del Valle		E		E					E			P	E	E	E	E	E	E	
Shadow Cliffs Reservoir				E			E		E					E	E	E	E	E	
Del Valle Reservoir		E					E		E					E	E	E	E	E	
Arroyo Mocho				E					E			E		E	E	E	E	E	
Tassajara Creek				E					P			E	E	E	E	E	E	E	
Arroyo las Positas				E					E			E	E	E	E	E	E	E	
Cottonwood Creek													E		E	E	E	E	
Collier Canyon Creek													E		E	E	E	E	
Cayetano Creek													E		E	E	E	E	
Arroyo Seco (Alameda)				E					E			E	E	E	E	E	E	E	
Altamont Creek				E					E				E		E	E	E	E	
Alamo Canal				E					P			E		E	E	E	E	E	
Alamo Creek				E					P			E	E	E	E	E	E	E	
Dublin Creek															E	E	E	E	
Martin Canyon Creek															E	E	E	E	
South San Ramon Creek															E	E	E	E	
SANTA CLARA COUNTY																			
Tributary to Alameda Creek:																			
Calaveras Creek			E						E				E	E	E	E	E	E	
Calaveras Reservoir		E							E				E	E	E	E	E*	E	
Arroyo Hondo		E	E						E				E	E	E	E	E	E	
Isabel Creek		E	E						E					E	E	E	E	E	
Smith Creek		E	E						E					E	E	E	E	E	
Sulphur Creek (Santa Clara)		E	E						E					E	E	E	E	E	
Colorado Creek *Trib. To Arroyo del Val*			E						E						E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SANTA CLARA BASIN

COUNTY Waterbody	Human Consumptive Uses						Aquatic Life Uses									Wildlife Use	Recreational Uses		
	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
San Francisco Bay South					E		E	E		E		E	E	E		E	E	E	E
ALAMEDA & SANTA CLARA COUNTIES																			
Newark Slough										E			E			E	E	E	
Plummer Creek (Zone 5 Line F-1)										E			E			E	E	E	
Mowry Slough										E			E			E	E	E	
Coyote Slough										E			E			E	E	E	
Mud Slough										E			E			E	E	E	
Laguna Creek (Arroyo la Laguna, or Zone 6 Line E)															E	E	E	E	
Mission Creek (Zone 6 Line L)															E	E	E	E	
Lake Elizabeth									E					E	E	E	E*	E	
Sabrecat Creek (Zone 6 Line K)															E	E	E	E	
Canada del Aliso (Zone 6 Line j)															E	E	E	E	
Agua Caliente Creek (Alameda) (Zone 6 Line F)															E	E	E	E	
Agua Fria Creek (Zone 6 Line D)															E	E	E	E	
Stivers Lagoon (Fremont Lagoon)			E												E	E	E	E	
Mallard (Artesian) Slough										E			E			E	E	E	
Scott Creek (Zone 6 Line A)															E	E	E	E	
Toroges Creek (Zone 6 Line C)													E		E	E	E	E	
SAN MATEO AND SANTA CLARA COUNTIES																			
San Francisquito Creek									E			E		E	E	E	E	E	
Lake Lagunita													E		E	E	E	E	
Los Trancos Creek									E			E	E	E	E	E	E	E	
Felt Lake	E													E	E	E	E	E	
Bear Creek (San Mateo)									E			E	E	E	E	E	E	E	
Bear Gulch Creek (San Mateo)		E							E			E	E	E	E	E	E	E	
West Union Creek									E			E	E	E	E	E	E	E	
Searsville Lake	E								E					E	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SANTA CLARA BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SAN MATEO AND SANTA CLARA COUNTIES, continued																			
Alambique Creek									E						E	E	E	E	
Sausal Creek (San Mateo)									E						E	E	E	E	
SANTA CLARA COUNTY ONLY																			
Palo Alto Harbor & Baylands										E		E	E			E	E	E	
Mayfield Slough										E		E	E			E	E	E	
Matadero Creek									E			E	E	E	E	E	E	E	
Deer Creek (Santa Clara)									E				E		E	E	E	E	
Arastradero Creek									E				E		E	E	E	E	
Charleston Slough										E		E	E			E	E	E	
Barron Creek															E	E	E	E	
Adobe Creek (Santa Clara)									E						E	E	E	E	
Mountain View Slough										E			E			E	E	E	
Permanente Creek				E					E				E	E	E	E	E	E	
Hale Creek									E						E	E	E	E	
Stevens Creek			E	E					E			E	E	E	E	E	E	E	
Stevens Creek Reservoir		E		E			E		E			E		E	E	E	E	E	
Swiss Creek			E						E						E	E	E	E	
Guadalupe Slough										E			E			E	E	E	
Moffett Channel										E						E	E	E	
Calabazas Creek	E			E					E						E	E	E	E	
San Tomas Aquino Creek									E				E		E	E	E	E	
Saratoga Creek	E		E	E					E						E	E	E	E	
Bonjetti Creek									E						E	E	E	E	
McElroy Creek									E						E	E	E	E	
Alviso Slough										E		E	E			E	E	E	
Guadalupe River				E					E				E	E	E	E	E	E	
Los Gatos Creek		E	E	E					E			P	E	P	E	E	E	P	
Campbell Percolation Pond				E			E		E					E	E	E	E	E	
Vasona Reservoir		E		E			E		E					E	E	E	E	E	
Lexington Reservoir		E		E			E		E					E	E	E	E	E	
Soda Springs Creek			E						E						E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SANTA CLARA BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SANTA CLARA COUNTY ONLY, continued																			
Lake Elsman		E							E						E	E	E*	E	
Austrian Gulch Creek			E						E					E	E	E	E	E	
Ross Creek				E											E	E	E	E	
Canoas Creek															E	E	E	E	
Guadalupe Creek			E	E					E			E	E	E	E	E	E	E	
Los Capitancillos Percolation Ponds				E											E	E	E	E	
Guadalupe Percolation Ponds				E											E	E	E	E	
Pheasant Creek			E						E					E	E	E	E	E	
Guadalupe Reservoir		E		E					E					E	E	E	E	E	
Los Capitancillos Creek			E	E					E						E	E	E	E	
Rincon Creek			E	E					E			E	E		E	E	E	E	
Alamitos Creek			E	E					E			E	E	E	E	E	E	E	
Arroyo Calero			E						E			E	E	E	E	E	E	E	
Calero Reservoir		E		E										E	E	E	E*	E	
Almaden Reservoir		E		E					E				E	E	E	E	E*	E	
Herbert Creek			E						E						E	E	E	E	
Barrett Canyon Creek			E						E						E	E	E	E	
Coyte Creek (nontidal)				E			E		E			E	E	E	E	E	E	E	
Upper Penitencia Creek			E	E					E			E	E	E	E	E	E	E	
Arroyo Aguague Creek									E			E	E	E	E	E	E	E	
Halls Valley Lake (Grant Lake)									E					E	E	E	E	E	
Cherry Flat Reservoir	E	E												E	E	E	E*	E	
Lower Silver Creek															E	E	E	E	
Babb Creek															E	E	E	E	
South Babb Creek															E	E	E	E	
Flint Creek															E	E	E	E	
Thompson Creek															E	E	E	E	
Quimby Creek															E	E	E	E	
Yerba Buena Creek															E	E	E	E	
Upper Silver Creek													E		E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SANTA CLARA BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SANTA CLARA COUNTY ONLY, continued																			
Cottonwood Lake							E		E					E	E	E	E	E	
Fisher Creek															E	E	E	E	
Anderson Reservoir		E		E			E		E					E	E	E	E*	E	
San Felipe Creek			E						E					E	E	E	E	E	
Las Animas Creek			E						E						E	E	E	E	
Packwood Creek			E						E					E	E	E	E	E	
Hoover Creek			E						E					E	E	E	E	E	
Otis Canyon Creek			E						E						E	E	E	E	
Coyote Reservoir	E	E					E		E					E	E	E	E*	E	
Canada de los Osos Creek			E												E	E	E	E	
Soda Springs Canyon Creek									E						E	E	E	E	
Lower Penitencia Creek															E	E	E	E	
Berryessa Creek															E	E	E	E	
Calera Creek (Santa Clara)															E	E	E	E	
Tularcitos Creek															E	E	E	E	
Arroyo de los Coches													E		E	E	E	E	
Sandy Wool Lake							E		E					E	E	E	E*	E	

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SAN PABLO BASIN

	Human Consumptive Uses						Aquatic Life Uses									Wildlife Use	Recreational Uses		
COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
San Pablo Bay					E		E	E		E		E	E	E		E	E	E	E
SOLANO COUNTY																			
Mare Island Strait							E			E		E	E			E	E	E	E
White Slough							E			E		E	E	E		E	E	E	
South Slough							E			E		E	E			E	E	E	
Dutchman Slough							E			E		E	E			E	E	E	
Lake Chabot (Solano)	E	E							E					E	E	E	E	E	
Rindler Creek			E												E	E	E	E	
Blue Rock Springs Creek			E												E	E	E	E	
Lake Dalwigk															E	E	E	E	
CONTRA COSTA COUNTY																			
Rodeo Creek									E					E	E	E	E	E	
Refugio Creek															E	E	E	E	
Pinole Creek									E			E	E	E	E	E	E	E	
Garrity Creek															E	E	E	E	
Rheem Creek															E	E	E	E	
San Pablo Creek			E						E			E	E	E	E	E	E*	E	
San Pablo Reservoir		E					E		E					E	E	E	E*	E	
Lauterwasser Creek			E												E	E	E	E	
Briones Reservoir		E							E					E	E	E	E*	P	
Bear Creek (Contra Costa)			E										E		E	E	E	E	
Wildcat Creek			E						E			E	E	E	E	E	E	E	
Jewel Lake									E						E	E	E	E	
Lake Anza			E				E		E						E	E	E	E	
MARIN COUNTY																			
Black John Slough										E		E	E			E	E	E	
Rush Creek										E			E			E	E	E	
Bahia Lagoon										E						E	E	E	
Novato Creek		E					E		E			E	E	E	E	E	E	E	
Stafford Lake		E					E		E					E	E	E	E	E	

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SAN PABLO BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
MARIN COUNTY, continued																			
Bowman Canyon Creek									E			E	E	E	E	E	E	E	
Warner Creek (Novato)									E			E	E		E	E	E	E	
Arroyo Avichi									E				E		E	E	E	E	
Pacheco Pond							E		E			P	E	P	E	E	E	E	
Arroyo San Jose									E				E		E	E	E	E	
Miller Creek									E			E	E	E	E	E	E	E	
Gallinas Creek									E				E		E	E	E	E	
SONOMA COUNTY																			
Petaluma River									E	E		E	E	E	E	E	E	E	E
San Antonio Creek									E			P		P	E	E	E	E	
Adobe Creek (Sonoma)									E			E	E	E	E	E	E	E	
Lynch Creek									E			E	E	E	E	E	E	E	
Willow Creek (Willow Canyon Creek)									E			E	E	E	E	E	E	E	
Lichau Creek									E			E		E	E	E	E	E	
Tolay Creek													E		E	E	E	E	
Second Napa Slough							E			E		E	E			E	E	E	
Third Napa Slough							E			E			E			E	E	E	
Steamboat Slough							E			E			E			E	E	E	
Hudeman Slough							E			E		E	E			E	E	E	
Rainbow Slough							E			E			E			E	E	E	
Sonoma Creek							E		E			E	E	E	E	E	E	E	
Fowler Creek									E			E	E		E	E	E	E	
Felder Creek									E						E	E	E	E	
Carriger Creek									E			E	E	E	E	E	E	E	
Rodgers Creek									E				E	E	E	E	E	E	
Schell Creek									E			E	E		E	E	E	E	
Arroyo Seco Creek (Sonoma)									E			E	E	E	E	E	E	E	
Nathanson Creek									E			E	E	E	E	E	E	E	
Agua Caliente Creek (Sonoma)									E			E	E	E	E	E	E	E	
Hooker Creek									E			E	E	E	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SAN PABLO BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SONOMA COUNTY, continued																			
Mill Creek (Sonoma)									E			E	E	E	E	E	E	E	
Calabazas Creek (Sonoma)									E			E	E	E	E	E	E	E	
Stuart Creek									E			E	E	E	E	E	E	E	
Graham Creek									E			E	E	E	E	E	E	E	
Yulupa Creek									E			E	E	E	E	E	E	E	
Bear Creek (Sonoma)									E			E	E	E	E	E	E	E	
NAPA COUNTY																			
Napa Slough							E			E		E	E			E	E	E	
China Slough							E			E		E	E			E	E	E	
Napa River – tidal							E			E		E	E			E	E	E	E
American Canyon Creek															E	E	E	E	
Mud Slough (Napa)							E			E		E	E			E	E	E	
Devils Slough							E			E		E	E			E	E	E	
Huichica Creek									E			E	E	E	E	E	E	E	
Carneros Creek									E			E	E	E	E	E	E	E	
Fagan Creek															E	E	E	E	
Suscol Creek									E			E	E	E	E	E	E	E	
Bedford Slough (Napa)										E						E	E	E	
Lake Marie	E	E							P					E	P	E	E	E	
Tulucay Creek									E			E	E	E	E	E	E	E	
Spencer Creek									E			E	E	E	E	E	E	E	
Murphy Creek									E			E	E	E	E	E	E	E	
Napa River – nontidal	E	E		E			E		E			E	E	E	E	E	E	E	E
Napa Creek									E			E	E	E	E	E	E	E	
Browns Valley Creek									E			E	E	E	E	E	E	E	
Redwood Creek (Napa)									E			E	E	E	E	E	E	E	
Pickle Canyon Creek									E			E	E	E	E	E	E	E	
Milliken Creek			E						E			E	E	E	E	E	E	E	
Milliken Reservoir		E							E					E	E	E	E*	E	
Sarco Creek									E			E	E	E	E	E	E	E	
Salvador Creek									E				E	E	E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SAN PABLO BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
NAPA COUNTY, continued																			
Soda Creek									E			E	E	E	E	E	E	E	
Dry Creek (Napa)	E	E							E			E	E	E	E	E	E	E	
Segassia Canyon Creek									E			E	E	E	E	E	E	E	
Montgomery Creek									E			E	E	E	E	E	E	E	
Hopper Creek									E						E	E	E	E	
Conn Creek		E	E						E			E	E	E	E	E	E	E	
Rector Creek			E						E			E	E	E	E	E	E	E	
Rector Reservoir		E							E					E	E	E	E*	E	
Lake Hennessey		E					E		E					E	E	E	E	E	
Chiles Creek		E	E						E					E	E	E	E	E	
Moore Creek			E						E						E	E	E	E	
Sage Creek		E	E						E					E	E	E	E	E	
Angwin Lakes		E													E	E	E	E	
Bale Slough									E			E	E	E	E	E	E	E	
Bear Canyon Creek									E				E		E	E	E	E	
Sulphur Creek (Napa)									E			E	E	E	E	E	E	E	
Heath Canyon Creek									E			E	E	E	E	E	E	E	
Iron Mine Creek									E			E	E	E	E	E	E	E	
York Creek									E			E	E	E		E	E	E	
Bell Canyon Creek									E			E	E	E	E	E	E	E	
Bell Canyon Reservoir		E													E	E	E	E	
Mill Creek (Napa)									E			E	E	E	E	E	E	E	
Ritchey Creek (Ritchie Creek)									E			E	E	E	E	E	E	E	
Selby Creek									E			E	E	E	E	E	E	E	
Dutch Henry Creek									E			E	E	E	E	E	E	E	
Diamond Mountain Creek									E					E	E	E	E	E	
Cyrus Creek									E			E	E	E	E	E	E	E	
Garnett Creek									E			E	E	E	E	E	E	E	
Jericho Canyon Creek									E				E	E	E	E	E	E	
Kimball Canyon Creek		E							E				E		E	E	E	E	
Kimball Reservoir		E													E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SUISUN BASIN

	Human Consumptive Uses									Aquatic Life Uses						Wildlife Use	Recreational Uses		
COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
Carquinez Strait					E		E			E		E	E	E		E	E	E	E
Suisun Bay					E	E	E			E		E	E	E		E	E	E	E
Sacramento-San Joaquin Delta	E	E		E	E	E	E			E		E	E	E		E	E	E	E
SOLANO COUNTY																			
Grizzly Bay							E			E		E	E			E	E	E	
Honker Bay							E			E		E	E			E	E	E	
Sulphur Springs Creek			E												E	E	E	E	
Lake Herman		E			E				E					E	E	E	E*	E	
Goodyear Slough							E			E		E	E			E	E	E	
Cordelia Slough							E			E		E	E			E	E	E	
Green Valley Creek			E						E			E	E	E	E	E	E	E	
Dan Wilson Creek									E						E	E	E	E	
Wild Horse Creek			E						E						E	E	E	E	
Lake Frey		E							E					E	E	E	E*	E	
Lake Madigan	E	E							E					E	E	E	E*	E	
Suisun Slough							E			E		E	E	E	E	E	E	E	E
Suisun Creek			E						E			E	E	E	E	E	E	E	
Suisun Reservoir			E						E						E	E	E	E	
Wooden Valley Creek									E			E	E	E	E	E	E	E	
Lake Curry		E												E	E	E	E	E	
Sheldrake Slough							E			E			E			E	E	E	
Boynton Slough							E			E			E			E	E	E	
Peytonia Slough							E			E			E			E	E	E	
Ledgewood Creek			E						E			E		E	E	E	E	E	
Gordon Valley Creek									E						E	E	E	E	
Laurel Creek (Solano)			E						E			E		E	E	E	E	E	
Hill Slough							E			E			E			E	E	E	
Cutoff Slough							E			E		E	E			E	E	E	
Spring Branch															E	E	E	E	

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

SUISUN BASIN

COUNTY Waterbody	AGR	MUN	FRSH	GWR	IND	PROC	COMM	SHELL	COLD	EST	MAR	MIGR	RARE	SPWN	WARM	WILD	REC-1	REC-2	NAV
SOLANO COUNTY																			
Volanti Slough							E			E			E			E	E	E	
Montezuma Slough							E			E		E	E	E	E	E	E	E	E
Nurse Slough							E			E		E	E			E	E	E	
Denverton Slough							E			E		E	E			E	E	E	
Denverton Creek													E	E	E	E	E	E	
CONTRA COSTA COUNTY																			
Alhambra Creek									E			E	E		E	E	E	E	
Franklin Creek									E			E	E	E	E	E	E	E	
Arroyo del Hambre									E						E	E	E	E	
Peyton Slough					E		E			E		E	E			E	E	E	
Pacheco Creek															E	E	E	E	
Walnut Creek									E			E	E	E	E	E	E	E	
Grayson Creek									E			E	E		E	E	E	E	
Pine Creek									E			E	E	E	E	E	E	E	
Galindo Creek									E						E	E	E	E	
San Ramon Creek															E	E	E	E	
Bollinger Canyon Creek									E					E	E	E	E	E	
Las Trampas Creek									E				E		E	E	E	E	
Tice Creek													E		E	E	E	E	
Lafayette Creek									E						E	E	E	E	
Lafayette Reservoir		E					E		E					E	E	E	E*	E	
Hastings Slough										E			E			E	E	E	
Mt. Diablo Creek									E			E	E	E	E	E	E	E	
Mitchell Creek									E			E	E	E	E	E	E	E	
Donner Creek									E					E	E	E	E	E	
Mallard Slough (Contra Costa)							E			E		E	E			E	E	E	
Kirker Creek													E		E	E	E	E	
New York Slough							E			E		E	E			E	E	E	E

E: Existing beneficial use E*: Water quality objectives apply; water contact recreation is prohibited or limited to protect public health P: Potential beneficial use

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APPENDIX D EMISSION FACTORS AND TOTAL EMISSIONS

- Emission Factors (6 pages)
- No Action (Alternative 1) Emissions (31 pages)
- Proposed, Connected and Cumulative Action (Alternative 2) Emissions (91 pages)

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On-Road Vehicle Emission Rates from EMFAC2011 for Bay Area Air Quality Management District

Trip Type	VMT/Trip(a)	No. of Trips(b)	VMT/day	ROG (lbs/day)(c)	CO (lbs/day)	NOx (lbs/day)	PM10 (lbs/day)(d)	PM2.5 (lbs/day)(e)	SO2 (lbs/day)	CO2 (lbs/day) Pavley+LCFS	N2O (lbs/day)	CH4 (lbs/day)
Worker Trips-Paved Roads	30	2	60	0.030	0.316	0.032	0.023	0.007	0.001	46.439	0.0023	0.0027
Worker Trips-Unpaved Roads	1	2	2	0.009	0.068	0.005	0.527	0.053	0.000	2.550	0.0001	0.0001
Dump Truck Trips-Paved Roads	40	2	80	0.089	0.405	2.204	0.434	0.148	0.003	310.735	0.0029	0.0077
Dump Truck Trips-Unpaved Roads	1	2	2	0.010	0.044	0.117	1.784	0.180	0.000	13.448	0.0001	0.0003
Water Truck-Paved Roads	20	2	40	0.048	0.219	1.134	0.217	0.074	0.002	158.280	0.0015	0.0039
Water Truck-Unpaved Roads	1	2	2	0.010	0.044	0.117	1.784	0.180	0.000	13.448	0.0001	0.0003
Log/Chip Haul Truck Trips-Paved Roads	75	2	150	0.230	1.037	4.137	0.849	0.311	0.006	578.071	0.0053	0.0143
Log/Chip Haul Truck Trips-Unpaved Roa	1	2	2	0.011	0.049	0.118	1.784	0.181	0.000	13.614	0.0001	0.0003
Firewood Haul Truck Trips-Paved Roads	40	2	80	0.126	0.570	2.236	0.453	0.166	0.003	311.098	0.0029	0.0077
Firewood Haul Truck Trips-Unpaved Roa	1	2	2	0.011	0.049	0.118	1.784	0.181	0.000	13.614	0.0001	0.0003

Daily emissions in this table are per round trip (2 one-way trips = 1 round trip).

Notes:

a. Distance based on one-way trips.

b. Two one-way trips = one round trip, emissions are for a round trip.

c. Does not include diurnal losses - not applicable to project impacts.

d. Includes paved road dust of 0.129 g/VMT for cars and 2.04 g/VMT for trucks (USEPA 2011b); and unpaved road dust of 119 g/VMT for cars and 404 g/VMT for trucks (USEPA 2006).

e. Includes paved road dust of 0.032 g/VMT for cars and 0.510 g/VMT for trucks (USEPA 2011b); and unpaved road dust of 12 g/VMT for cars and 40 g/VMT for trucks (USEPA 2006).

f. For travel on paved roads. Silt loading = 0.06 g/m2; vehicle weight = 2 tons for worker vehicles and 30 tons for all trucks.

g. For travel on unpaved (access) roads. Silt content = 8.4%, vehicle weight = 2 tons for worker vehicles and 30 tons for all trucks.

									(tot hr/day)	(tot gal/day)
Equipment	**Fuel**	**MaxHP**	**Class**	**C/R**	**Pre**	**Hand**	**Port**	**Population**	**Activity**	**Consumption**
Air Compressors	G4	15	Light Commercial Equipment	C	P	NHH	P	1,990.15	2,395.21	924.23
Chainsaws	G2	2	Lawn and Garden Equipment	C	N	HH	NP	84,321.02	93,543.89	5,578.49
Chainsaws Preempt	G2	15	Lawn and Garden Equipment	C	P	HH	NP	73,930.96	82,017.42	11,824.14
Chippers/Stump Grinders-Trailer	G4	25	Lawn and Garden Equipment	C	P	NHH	P	752.45	3,641.42	5,222.41
Chippers/Stump Grinders	D	500	Lawn and Garden Equipment	U	N	NHH	P	43.77	54.95	614.56
Dozers (Crawler Tractors)	D	120	Construction and Mining Equipment	U	P	NHH	NP	9,964.61	32,832.70	99,124.44
Fellers/Bunchers	D	250	Logging Equipment	U	N	NHH	NP	446.00	1,791.48	15,800.90
Loaders, Rubber Tired	D	120	Construction and Mining Equipment	U	P	NHH	NP	9,277.15	28,477.54	76,825.60
Loaders, Skid Steer	D	50	Construction and Mining Equipment	U	P	NHH	NP	21,847.39	58,396.69	68,538.28
Mowers, Rear Engine Riding	G4	15	Lawn and Garden Equipment	C	N	NHH	NP	152,649.90	158,868.50	52,602.74
Skidders	D	175	Logging Equipment	U	P	NHH	NP	435.00	1,974.60	12,601.44
Trimmers/Edgers/Brush Cutters	G2	2	Lawn and Garden Equipment	C	N	HH	NP	274,930.80	127,989.20	5,676.90
Trimmers/Edgers/Brush Cutters	G4	5	Lawn and Garden Equipment	C	P	NHH	NP	50,891.20	26,482.19	812.16

			Emissions in total tons per day (tpd)							
Equipment	**Fuel**	**MaxHP**	**ROG Exhaust**	**CO Exhaust**	**NOX Exhaust**	**SO2 Exhaust**	**PM Exhaust**	**CO2 Exhaust**	**N2O Exhaust**	**CH4 Exhaust**
Air Compressors	G4	15	0.07	2.67	0.05	0.00	0.04	4.44	0.01	0.00
Chainsaws	G2	2	4.66	8.44	0.07	0.00	0.01	22.80	0.04	0.29
Chainsaws Preempt	G2	15	9.89	17.88	0.16	0.00	0.03	48.34	0.05	0.61
Chippers/Stump Grinders-Trailer	G4	25	0.42	15.65	0.27	0.00	0.20	24.20	0.02	0.02
Chippers/Stump Grinders	D	500	0.00	0.02	0.05	0.00	0.00	6.79	-	0.00
Dozers (Crawler Tractors)	D	120	2.12	7.97	12.61	0.01	1.11	1,079.40	-	0.19
Fellers/Bunchers	D	250	0.11	0.34	1.01	0.00	0.03	174.50	-	0.01
Loaders, Rubber Tired	D	120	1.38	5.91	8.56	0.01	0.75	838.10	-	0.12
Loaders, Skid Steer	D	50	1.51	6.60	6.65	0.01	0.46	744.45	-	0.14
Mowers, Rear Engine Riding	G4	15	2.45	153.42	1.76	0.01	0.12	257.20	0.26	0.14
Skidders	D	175	0.11	0.79	0.90	0.00	0.05	138.22	-	0.01
Trimmers/Edgers/Brush Cutters	G2	2	3.06	10.09	0.09	0.00	0.02	27.26	0.05	0.19
Trimmers/Edgers/Brush Cutters	G4	5	0.11	1.86	0.05	0.00	0.00	4.51	0.02	0.01

			Fuel Consumed	Engine Exhaust Emission Rates in lbs/day/unit							
Equipment	**Fuel**	**MaxHP**	**(gal/day/unit)**	**VOC**	**CO**	**NOx**	**SO_2**	**PM**	**CO_2**	**N_2O**	**CH_4**
Air Compressors	G4	15	0.4644	0.0731	2.6843	0.0537	0.0001	0.0374	4.4666	0.0056	0.0041
Chainsaws	G2	2	0.0662	0.1106	0.2001	0.0017	0.0000	0.0003	0.5409	0.0009	0.0069
Chainsaws Preempt	G2	15	0.1599	0.2675	0.4838	0.0042	0.0001	0.0008	1.3076	0.0014	0.0166
Chippers/Stump Grinders-Trailer	G4	25	6.9405	1.1238	41.5865	0.7193	0.0016	0.5393	64.3272	0.0429	0.0621
Chippers/Stump Grinders	D	500	14.0392	0.1771	0.6863	2.1410	0.0030	0.0664	309.9953	0.0000	0.0160
Dozers (Crawler Tractors)	D	120	9.9476	0.4258	1.5991	2.5304	0.0025	0.2230	216.6465	0.0000	0.0384
Fellers/Bunchers	D	250	35.4280	0.4717	1.5164	4.5438	0.0088	0.1442	782.5101	0.0000	0.0426
Loaders, Rubber Tired	D	120	8.2812	0.2977	1.2734	1.8450	0.0021	0.1610	180.6812	0.0000	0.0269
Loaders, Skid Steer	D	50	3.1371	0.1381	0.6042	0.6085	0.0009	0.0419	68.1499	0.0000	0.0125
Mowers, Rear Engine Riding	G4	15	0.3446	0.0321	2.0101	0.0230	0.0001	0.0016	3.3698	0.0034	0.0018
Skidders	D	175	28.9688	0.5193	3.6528	4.1158	0.0072	0.2287	635.4924	0.0000	0.0469
Trimmers/Edgers/Brush Cutters	G2	2	0.0206	0.0223	0.0734	0.0006	0.0000	0.0001	0.1983	0.0004	0.0014
Trimmers/Edgers/Brush Cutters	G4	5	0.0160	0.0042	0.0730	0.0019	0.0000	0.0001	0.1774	0.0006	0.0002

			(unit gal/day)	Emissions in lbs/day/unit							
Equipment	**Fuel**	**MaxHP**	**Consumption**	**ROG Exhaust**	**CO Exhaust**	**NOX Exhaust**	**SO2 Exhaust**	**PM Exhaust**	**CO2 Exhaust**	**N2O Exhaust**	**CH4 Exhaust**
Air Compressors	G4	15	0.3119	0.0481	1.8031	0.0353	0.0001	0.0252	3.0038	0.0037	0.0027
Asphalt Pavers	G4	25	1.8302	0.2843	10.8853	0.1831	0.0004	0.1437	17.1365	0.0110	0.0159
Cement and Mortar Mixers	G4	15	0.1425	0.0274	0.8599	0.0129	0.0000	0.0106	1.2942	0.0014	0.0015
Chainsaws	G2	2	0.0008	0.0008	0.0033	0.0000	0.0000	0.0000	0.0069	0.0000	0.0001
Concrete/Industrial Saws	G4	15	0.6715	0.1008	3.8762	0.0742	0.0002	0.0544	6.4858	0.0061	0.0057
Cranes	D	120	9.2678	0.3702	1.4573	2.2189	0.0024	0.1985	202.0031	0.0000	0.0334
Crawler Tractors	D	120	9.9476	0.4258	1.5991	2.5304	0.0025	0.2230	216.6465	0.0000	0.0384
Generator Sets	G4	15	0.1740	0.0242	1.0233	0.0151	0.0000	0.0009	1.6573	0.0015	0.0014
Other Construction Equipment	D	15	1.0019	0.0255	0.1339	0.1599	0.0003	0.0062	21.9342	0.0000	0.0023
Pavers	D	120	8.3284	0.3636	1.3255	2.1905	0.0021	0.1911	181.3736	0.0000	0.0328
Paving Equipment	G4	15	0.3643	0.0547	2.1037	0.0401	0.0001	0.0295	3.5168	0.0036	0.0031
Pumps	G4	5	0.0689	0.0260	0.3226	0.0080	0.0000	0.0012	0.7241	0.0012	0.0015
Rollers	D	120	5.9658	0.2176	0.8967	1.3801	0.0015	0.1178	130.1818	0.0000	0.0196
Rubber Tired Loaders	D	120	8.2812	0.2977	1.2734	1.8450	0.0021	0.1610	180.6812	0.0000	0.0269
Skid Steer Loaders	G4	50	1.8705	0.0473	2.9564	0.0726	0.0004	0.0024	31.2772	0.0058	0.0027
Tractors/Loaders/Backhoes	D	120	7.1979	0.2112	1.0730	1.3882	0.0018	0.1165	157.2990	0.0000	0.0191
Trenchers	G4	50	2.8087	0.2188	6.4320	0.3085	0.0005	0.0033	43.2692	0.0138	0.0123
Welders	G4	25	0.3925	0.0644	2.3523	0.0380	0.0001	0.0304	3.6337	0.0029	0.0036

Prescribed Burning Estimates

From: U.S. EPA. 1996. "Wildfires and Prescribed Burning," (October) in *Compilation of Air Pollutant Emission Factors - Volume I: Stationary Point and Area Sources (AP-42) Fifth Edition.* Office of Air Quality Planning & Standards, Research Triangle Park, NC.

	EBH Equivalent	Estimated Average Fuel Loading		Pollutant Emission Factors, grams pollutant per kilogram fuel (g/kg)[a]								
Fire/Fuel Configuration	Fuel Type	Mg/hectare	kg/acre	CO	ROG	NOx	SO2	PM10	PM2.5	CO2	N2O	CH4
90% Pile Burn + 10% Broadcast Burn[b]	Eucalyptus/Acacia	58.67	23,743	44.5	6.4	3.85	NA	4.8	4.7	NA	0.23	2.23
90% Pile Burn + 10% Broadcast Burn[b]	Oak/Bay	19.27	7,799	44.5	6.4	3.85	NA	4.8	4.7	NA	0.23	2.23
90% Pile Burn + 10% Broadcast Burn[b]	Pine	42.99	17,396	50.8	4.2	3.85	NA	4.9	4.9	NA	0.23	2.19
Piled Logging Slash[c]	Piled	14.07	5,693	37	NA	4	NA	4	4	NA	0.23	1.8
90% Pile Burn + 10% Broadcast Burn[b]	Scrub	12.49	5,055	43.6	6.9	4	NA	5.1	4.9	NA	NA	2.24
90% Pile Burn + 10% Broadcast Burn[b]	Chaparral	28.25	11,433	43.4	12.5	4	NA	4.7	4.6	NA	NA	2.07
90% Pile Burn + 10% Broadcast Burn[b]	Grass	1.46	591	40.8	0	3.7	NA	4.6	4.6	NA	NA	NA
Broadcast Logging Slash - Hardwood[c]	Eucalyptus-Acacia	58.67	23,743	112	6.4	2.5	NA	12	11	NA	0.23	6.1
Broadcast Logging Slash - Hardwood[d]	Oak-Bay	19.27	7,799	112	6.4	2.5	NA	12	11	NA	0.23	6.1
Broadcast Logging Slash - Coniferous[d]	Pine_	42.99	17,396	175	4.2	2.5	NA	13	13	NA	0.23	5.7
Range Sagebrush[d]	Scrub_	12.49	5,055	103	6.9	4	NA	15	13	NA	NA	6.2
Range Chaparral[d]	Chaparral_	28.25	11,433	101	12.5	4	NA	11	10	NA	NA	4.5
Grassland[d]	Grass_	1.46	591	75	0	1	NA	10	10	NA	NA	NA

Notes:

a. Source for emission factors: U.S. EPA. 1996. "Wildfires and Prescribed Burning," (October) in Compilation of Air Pollutant Emission Factors - Volume I: Stationary Point and Area Sources (AP-42) Fifth Edition. Office of Air Quality Planning & Standards, Research Triangle Park, NC. Tables 13.1-3 and 13.1-5.

b. Per conversation with EBRPD, FEMA and CDM Smith (3/20/2013), 90% of fuel will be piled burned with 10% broadcast burned.

c. Fuel loading values for eucalyptus are averages from the following sources: Agee, J.K., Wakimoto, R.H., Darley, E.F., and Biswell, H.H. 1973. Eucalyptus Fuel Dynamics and Fire Hazard in the Oakland Hills. *California Agriculture* , September, pp. 13-15. Table 2; and National Park Services. 2006. Eucalyptus - A Complex Challenge: Fire Management, Resource Protection, and the Legacy of Tasmanian Blue Gum. U.S. Department of the Interior.

d. Fuel loading values are averages from the following sources: Clinton, N.E., Gong, P. & Scott, K. 2006. Quantification of pollutants emitted from very large wildland fires in Southern California, USA. *Atmospheric Environment* , 40: 3686-3695. Table 2; National Park Services. 2006. Eucalyptus - A Complex Challenge: Fire Management, Resource Protection, and the Legacy of Tasmanian Blue Gum. U.S. Department of the Interior; and Russell, W.H. and J.R. McBride. 2003. Landscape scale vegetation-type conversion and fire hazard in the San Francisco bay area open spaces. Landscape and Urban Planning, 64: 201-208.

	EBH Equivalent	Effective Loading,	Pollutant Emission Factors for Thinning/Clearing, pounds of pollutant per acre (lbs/acre)[a]								
Fire/Fuel Configuration	Fuel Type	kg/acre	CO	ROG	NOx	SO2	PM10	PM2.5	CO2	N2O	CH4
90% Pile Burn + 10% Broadcast Burn[b]	Eucalyptus/Acacia	23,743	2329	335	202	NA	251	246	NA	12	117
90% Pile Burn + 10% Broadcast Burn[b]	Oak/Bay	7,799	765	110	66	NA	83	81	NA	4	38
90% Pile Burn + 10% Broadcast Burn[b]	Pine	17,396	1948	161	148	NA	188	188	NA	9	84
Piled Logging Slash[c]	Piled	5,693	464	NA	50	NA	50	50	NA	3	23
90% Pile Burn + 10% Broadcast Burn[b]	Scrub	5,055	486	77	45	NA	57	55	NA	NA	25
90% Pile Burn + 10% Broadcast Burn[b]	Chaparral	11,433	1094	315	101	NA	118	116	NA	NA	52
90% Pile Burn + 10% Broadcast Burn[b]	Grass	591	53	0	5	NA	6	6	NA	NA	NA
Broadcast Logging Slash - Hardwood[c]	Eucalyptus-Acacia	23,743	5863	335	131	NA	628	576	NA	12	319
Broadcast Logging Slash - Hardwood[d]	Oak-Bay	7,799	1926	110	43	NA	206	189	NA	4	105
Broadcast Logging Slash - Coniferous[d]	Pine_	17,396	6711	161	96	NA	499	499	NA	9	219
Range Sagebrush[d]	Scrub_	5,055	1148	77	45	NA	167	145	NA	NA	69
Range Chaparral[d]	Chaparral_	11,433	2546	315	101	NA	277	252	NA	NA	113
Grassland[d]	Grass_	591	98	0	1	NA	13	13	NA	NA	NA

No Action Alternative: Totals-Summary

Site	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
No Action												
UCB-Claremont Canyon	0.07	0.02	0.14	0.00	0.02	0.01	20.08	0.000	0.001	20.20	10.61	603.69
UCB-Strawberry Canyon	0.10	0.03	0.18	0.00	0.03	0.01	26.15	0.000	0.002	26.30	13.82	786.20
UCB-Frowning Ridge	0.15	0.04	0.27	0.00	0.04	0.02	39.69	0.001	0.002	39.92	20.97	1,193.33
Oakland - North Hills Skyline	0.07	0.02	0.13	0.00	0.02	0.01	19.61	0.000	0.001	19.73	10.36	589.65
Oakland - Caldecott Tunnel	0.06	0.02	0.11	0.00	0.02	0.01	16.81	0.000	0.001	16.91	8.88	505.41
EBRPD - Anthony Chabot Regional Park	0.41	0.07	0.48	0.00	0.07	0.03	70.90	0.001	0.005	71.39	199.45	2,218.19
EBRPD - Claremont Canyon Regional Preserve	0.06	0.01	0.07	0.00	0.01	0.00	10.68	0.000	0.001	10.75	180.94	224.63
EBRPD - Huckleberry Botanic Regional Preserve	0.02	0.01	0.02	0.00	0.00	0.00	3.74	0.000	0.000	3.77	4.19	238.67
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.01	0.00	0.01	0.00	0.00	0.00	1.02	0.000	0.000	1.03	1.23	70.20
EBRPD - Leona Canyon Regional Open Space	0.01	0.00	0.01	0.00	0.00	0.00	1.02	0.000	0.000	1.03	1.23	70.20
EBRPD - Miller/Knox Regional Shoreline	0.02	0.01	0.03	0.00	0.00	0.00	4.33	0.000	0.000	4.37	32.48	210.63
EBRPD - Redwood Regional Park	0.09	0.02	0.15	0.00	0.02	0.01	22.59	0.000	0.001	22.73	153.72	617.73
EBRPD - Sibley Volcanic Regional Preserve	0.07	0.02	0.12	0.00	0.02	0.01	17.40	0.000	0.001	17.50	179.33	449.25
EBRPD - Sobrante Ridge Regional Preserve	0.01	0.00	0.01	0.00	0.00	0.00	1.87	0.000	0.000	1.88	0.99	56.16
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	0.22	0.05	0.39	0.00	0.06	0.02	56.98	0.001	0.003	57.31	74.29	1,670.67
EBRPD - Wildcat Canyon Regional Park	0.09	0.02	0.11	0.00	0.03	0.01	17.72	0.000	0.002	17.86	776.07	126.35
No Action	**1.44**	**0.34**	**2.22**	**0.00**	**0.35**	**0.14**	**330.59**	**0.005**	**0.022**	**332.68**	**1,668.57**	**9,630.94**

Category	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
No Action												
Offroad	0.73	0.23	0.85	0.00	0.03	0.02	111.64	0.001	0.015	112.33	1,668.57	9,630.94
Onroad	0.71	0.11	1.37	0.00	0.32	0.11	218.95	0.004	0.007	220.36	-	-
Dust	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-
Burn	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-
No Action Totals	**1.44**	**0.34**	**2.22**	**0.00**	**0.35**	**0.14**	**330.59**	**0.005**	**0.022**	**332.68**	**1,668.57**	**9,630.94**

NO ACTION (Alternative 1) Treated Area (acres) --> 42.81

UCB-Claremont Canyon

	Treated Area (acres) -->	42.81	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	0	43	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	43	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	8.605	4.758	0.075	0.001	0.014	0.012	23	0.039	0.296	2.845
Offroad	Chainsaws Preempt	G	1	43	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	20.803	11.502	0.181	0.002	0.033	0.030	56	0.062	0.715	6.877
Offroad	Chippers/Stump Grinders	D	1	43	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	29.513	7.614	92.063	0.131	2.854	2.626	13330	0.000	0.687	603.686
Offroad	Fellers/Bunchers	D	0	43	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	43	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	43	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	3.155	0.958	0.027	0.000	0.005	0.005	9	0.015	0.060	0.888
Onroad	Worker Trips-Paved Roads	G	3	43	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	40.827	3.831	4.102	0.065	3.017	0.897	5991	0.303	0.344	NA
Onroad	Worker Trips-Unpaved Roads	G	0	43	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roads	D	1	43	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	44.588	9.882	177.908	0.240	36.519	13.361	24857	0.229	0.614	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Roads	D	0	43	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**				**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**147.490**	**38.545**	**274.355**	**0.439**	**42.442**	**16.931**	**44266**	**0.647**	**2.715**	**614.296**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 56.34

UCB-Strawberry Canyon

	Treated Area (acres) -->	56.34	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	0	56	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	56	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	11.207	6.196	0.097	0.001	0.018	0.016	30	0.050	0.385	3.705
Offroad	Chainsaws Preempt	G	1	56	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	27.092	14.979	0.235	0.003	0.043	0.039	73	0.080	0.931	8.956
Offroad	Chippers/Stump Grinders	D	1	56	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	38.435	9.916	119.896	0.170	3.717	3.420	17360	0.000	0.895	786.196
Offroad	Fellers/Bunchers	D	0	56	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	56	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	56	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	4.109	1.248	0.036	0.000	0.006	0.006	11	0.020	0.078	1.156
Onroad	Worker Trips-Paved Roads	G	3	56	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	53.170	4.990	5.342	0.085	3.929	1.168	7802	0.395	0.448	NA
Onroad	Worker Trips-Unpaved Roads	G	0	56	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	56	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	58.068	12.869	231.694	0.312	47.560	17.400	32372	0.298	0.800	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	56	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**192.080**	**50.198**	**357.300**	**0.572**	**55.273**	**22.049**	**57648**	**0.843**	**3.536**	**800.013**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 85.10

UCB - Frowning Ridge (Oakland)

	Treated Area (acres) -->	85.10	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	0	85	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	85	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	17.010	9.405	0.148	0.002	0.027	0.025	46	0.076	0.585	5.623
Offroad	Chainsaws Preempt	G	1	85	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	41.122	22.736	0.357	0.005	0.065	0.060	111	0.122	1.413	13.594
Offroad	Chippers/Stump Grinders	D	1	85	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	58.339	15.051	181.985	0.259	5.642	5.191	26350	0.000	1.358	1193.333
Offroad	Fellers/Bunchers	D	0	85	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	85	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	85	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	6.237	1.894	0.054	0.001	0.010	0.009	17	0.030	0.118	1.755
Onroad	Worker Trips-Paved Roads	G	3	85	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	80.704	7.574	8.108	0.129	5.964	1.772	11842	0.599	0.679	NA
Onroad	Worker Trips-Unpaved Roads	G	0	85	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	85	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	88.138	19.533	351.678	0.474	72.189	26.411	49136	0.452	1.214	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	85	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**291.550**	**76.193**	**542.330**	**0.868**	**83.896**	**33.468**	**87502**	**1.279**	**5.367**	**1214.306**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 41.57

Oakland - North Hills Skyline

	Treated Area (acres) -->	41.57	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	0	42	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	42	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	8.405	4.647	0.073	0.001	0.013	0.012	23	0.038	0.289	2.779
Offroad	Chainsaws Preempt	G	1	42	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	20.319	11.234	0.176	0.002	0.032	0.029	55	0.060	0.698	6.717
Offroad	Chippers/Stump Grinders	D	1	42	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	28.826	7.437	89.922	0.128	2.788	2.565	13020	0.000	0.671	589.647
Offroad	Fellers/Bunchers	D	0	42	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	42	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	42	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	3.082	0.936	0.027	0.000	0.005	0.004	8	0.015	0.058	0.867
Onroad	Worker Trips-Paved Roads	G	3	42	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	39.877	3.742	4.006	0.064	2.947	0.876	5851	0.296	0.336	NA
Onroad	Worker Trips-Unpaved Roads	G	0	42	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	42	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	43.551	9.652	173.770	0.234	35.670	13.050	24279	0.224	0.600	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	42	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**144.060**	**37.648**	**267.975**	**0.429**	**41.455**	**16.537**	**43236**	**0.632**	**2.652**	**600.010**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 35.54

Oakland - Caldecott Tunnel

	Treated Area (acres) -->	35.54	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	0	36	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	36	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	7.204	3.983	0.063	0.001	0.011	0.010	19	0.032	0.248	2.382
Offroad	Chainsaws Preempt	G	1	36	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	17.416	9.629	0.151	0.002	0.027	0.025	47	0.052	0.599	5.758
Offroad	Chippers/Stump Grinders	D	1	36	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	24.708	6.375	77.076	0.110	2.390	2.198	11160	0.000	0.575	505.411
Offroad	Fellers/Bunchers	D	0	36	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	36	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	36	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	2.642	0.802	0.023	0.000	0.004	0.004	7	0.013	0.050	0.743
Onroad	Worker Trips-Paved Roads	G	3	36	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	34.180	3.208	3.434	0.055	2.526	0.751	5015	0.254	0.288	NA
Onroad	Worker Trips-Unpaved Roads	G	0	36	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	36	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	37.329	8.273	148.946	0.201	30.574	11.186	20811	0.192	0.514	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	36	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**123.480**	**32.270**	**229.693**	**0.368**	**35.533**	**14.175**	**37060**	**0.542**	**2.273**	**514.294**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 164.86

EBRPD - Anthony Chabot Regional Park

AC001	Treated Area (acres) -->	3.86	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																								
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**9.572**	**2.666**	**8.972**	**0.019**	**0.551**	**0.332**	**1805**	**0.039**	**0.195**	**57.144**

AC002	Treated Area (acres) -->	1.89	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**6.860**	**1.793**	**12.761**	**0.020**	**1.974**	**0.787**	**2059**	**0.030**	**0.126**	**28.572**

AC003	Treated Area (acres) -->	3.58	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	4.148	0.919	16.550	0.022	3.397	1.243	2312	0.021	0.057	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**13.720**	**3.586**	**25.521**	**0.041**	**3.948**	**1.575**	**4118**	**0.060**	**0.253**	**57.144**

AC006	Treated Area (acres) -->	22.04	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	22	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1	22	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	10.643	5.885	0.092	0.001	0.017	0.015	29	0.032	0.366	3.519
Offroad	Chippers/Stump Grinders	D	1	22	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	15.100	3.896	47.102	0.067	1.460	1.343	6820	0.000	0.351	308.863
Offroad	Chippers/Stump Grinders	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Fellers/Bunchers	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	22	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	3	22	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	20.888	1.960	2.099	0.033	1.544	0.459	3065	0.155	0.176	NA
Onroad	Worker Trips-Unpaved Roads	G	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.23	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	9.44	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.26	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	6.16	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.44	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**52.648**	**14.665**	**49.345**	**0.102**	**3.030**	**1.826**	**9930**	**0.214**	**1.075**	**314.291**

AC007	Treated Area (acres) -->	7.86	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	8	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1	8	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.870	2.140	0.034	0.000	0.006	0.006	10	0.011	0.133	1.279
Offroad	Chippers/Stump Grinders	G	1	8	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	5.491	1.417	17.128	0.024	0.531	0.489	2480	0.000	0.128	112.314
Offroad	Loaders, Skid Steer	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	8	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	16.081	0.257	0.184	0.001	0.013	0.012	27	0.027	0.014	2.757
Offroad	Trimmers/Edgers/Brush Cutters	G	1	8	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	3	8	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	1.45	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.52	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	1.50	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.46	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	8	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.295	1.838	33.099	0.045	6.794	2.486	4625	0.043	0.114	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**43.521**	**7.428**	**51.227**	**0.082**	**7.909**	**3.161**	**8262**	**0.147**	**0.520**	**117.044**

AC011	Treated Area (acres) -->	20.91	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	21	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	4.203	2.324	0.036	0.000	0.007	0.006	11	0.019	0.144	1.389
Offroad	Chainsaws Preempt	G	1	21	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	10.159	5.617	0.088	0.001	0.016	0.015	27	0.030	0.349	3.359
Offroad	Chippers/Stump Grinders	D	1	21	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	14.413	3.719	44.961	0.064	1.394	1.282	6510	0.000	0.336	294.823
Offroad	Fellers/Bunchers	D	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	21	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	42.213	0.675	0.483	0.002	0.033	0.030	71	0.070	0.038	7.237
Offroad	Skidders	D	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	21	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.541	0.468	0.013	0.000	0.002	0.002	4	0.007	0.029	0.434
Onroad	Worker Trips-Paved Roads	G	3	21	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	19.939	1.871	2.003	0.032	1.474	0.438	2926	0.148	0.168	NA
Onroad	Worker Trips-Unpaved Roads	G	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	5.97	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.94	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	6.88	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.15	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	21	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	21.775	4.826	86.885	0.117	17.835	6.525	12139	0.112	0.300	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	21	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**114.243**	**19.499**	**134.470**	**0.217**	**20.760**	**8.299**	**21689**	**0.387**	**1.364**	**307.241**

AC012	Treated Area (acres) -->	15.10	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	15	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	3.002	1.660	0.026	0.000	0.005	0.004	8	0.013	0.103	0.992
Offroad	Chainsaws Preempt	G	1	15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders	D	1	15	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	10.295	2.656	32.115	0.046	0.996	0.916	4650	0.000	0.240	210.588
Offroad	Fellers/Bunchers	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	15	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	30.152	0.482	0.345	0.001	0.023	0.022	51	0.050	0.027	5.169
Offroad	Skidders	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	15	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.101	0.334	0.010	0.000	0.002	0.002	3	0.005	0.021	0.310
Onroad	Worker Trips-Paved Roads	G	3	15	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	14.242	1.337	1.431	0.023	1.053	0.313	2090	0.106	0.120	NA
Onroad	Worker Trips-Unpaved Roads	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	4.37	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	4.39	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	1.31	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	15	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	15.554	3.447	62.061	0.084	12.739	4.661	8671	0.080	0.214	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**81.602**	**13.928**	**96.050**	**0.155**	**14.829**	**5.928**	**15492**	**0.276**	**0.974**	**219.458**

AC013	Treated Area (acres) -->	14.75	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	15	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	3.002	1.660	0.026	0.000	0.005	0.004	8	0.013	0.103	0.992
Offroad	Chainsaws Preempt	G	1	15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders	D	1	15	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	10.295	2.656	32.115	0.046	0.996	0.916	4650	0.000	0.240	210.588
Offroad	Fellers/Bunchers	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	15	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	30.152	0.482	0.345	0.001	0.023	0.022	51	0.050	0.027	5.169
Offroad	Skidders	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	15	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.101	0.334	0.010	0.000	0.002	0.002	3	0.005	0.021	0.310
Onroad	Worker Trips-Paved Roads	G	3	15	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	14.242	1.337	1.431	0.023	1.053	0.313	2090	0.106	0.120	NA
Onroad	Worker Trips-Unpaved Roads	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.05	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	6.89	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	7.81	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	15	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	15.554	3.447	62.061	0.084	12.739	4.661	8671	0.080	0.214	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**81.602**	**13.928**	**96.050**	**0.155**	**14.829**	**5.928**	**15492**	**0.276**	**0.974**	**219.458**

AC014	Treated Area (acres) -->	74.87	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																								
Offroad	Air Compressors	G	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	75	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	15.009	8.298	0.130	0.002	0.024	0.022	41	0.067	0.516	4.962
Offroad	Chainsaws Preempt	G	1	75	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	36.284	20.061	0.315	0.004	0.057	0.053	98	0.108	1.247	11.995
Offroad	Chippers/Stump Grinders	D	1	75	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	51.476	13.280	160.575	0.228	4.978	4.580	23250	0.000	1.198	1052.941
Offroad	Fellers/Bunchers	D	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	75	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	150.761	2.411	1.725	0.007	0.117	0.108	253	0.252	0.135	25.845
Offroad	Skidders	D	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	75	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	5.503	1.671	0.048	0.001	0.009	0.008	15	0.026	0.104	1.549
Onroad	Worker Trips-Paved Roads	G	3	75	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	71.209	6.683	7.154	0.114	5.263	1.564	10449	0.529	0.600	NA
Onroad	Worker Trips-Unpaved Roads	G	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.01	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	10.90	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	43.88	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	20.08	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	75	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	77.769	17.235	310.304	0.418	63.696	23.304	43355	0.399	1.071	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	75	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**408.012**	**69.640**	**480.251**	**0.773**	**74.144**	**29.638**	**77460**	**1.381**	**4.871**	**1097.291**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 30.82

EBRPD - Claremont Canyon Regional Preserve

CC001	Treated Area (acres) -->	13.86	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	14	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1	14	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.773	3.745	0.059	0.001	0.011	0.010	18	0.020	0.233	2.239
Offroad	Chippers/Stump Grinders	D	1	14	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	9.609	2.479	29.974	0.043	0.929	0.855	4340	0.000	0.224	196.549
Offroad	Fellers/Bunchers	D	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	14	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	3	14	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	13.292	1.247	1.335	0.021	0.982	0.292	1950	0.099	0.112	NA
Onroad	Worker Trips-Unpaved Roads	G	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	2.23	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.53	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.43	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.27	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	14	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	14.517	3.217	57.923	0.078	11.890	4.350	8093	0.075	0.200	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**48.020**	**12.549**	**89.325**	**0.143**	**13.818**	**5.512**	**14412**	**0.211**	**0.884**	**200.003**

CC003	Treated Area (acres) -->	1.88	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	G	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Mowers, Rear Engine Riding	G	1	2	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	4.020	0.064	0.046	0.000	0.003	0.003	7	0.007	0.004	0.689
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	1.41	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**10.880**	**1.857**	**12.807**	**0.021**	**1.977**	**0.790**	**2066**	**0.037**	**0.130**	**29.261**

CC006	Treated Area (acres) -->	3.04	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	3	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.600	0.332	0.005	0.000	0.001	0.001	2	0.003	0.021	0.198
Offroad	Chainsaws Preempt	G	1	3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Trimmers/Edgers/Brush Cutters	G	1	3	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.220	0.067	0.002	0.000	0.000	0.000	1	0.001	0.004	0.062
Onroad	Worker Trips-Paved Roads	G	3	3	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	2.848	0.267	0.286	0.005	0.211	0.063	418	0.021	0.024	NA
Onroad	Worker Trips-Unpaved Roads	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**1.707**	**0.490**	**0.102**	**0.002**	**0.071**	**0.022**	**141**	**0.010**	**0.033**	**0.247**	**5.120**	**1.469**	**0.306**	**0.005**	**0.214**	**0.066**	**424**	**0.029**	**0.099**	**0.740**

CC007	Treated Area (acres) -->	1.72	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Mowers, Rear Engine Riding	G	1	2	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	4.020	0.064	0.046	0.000	0.003	0.003	7	0.007	0.004	0.689
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	4	2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**4.674**	**0.734**	**2.286**	**0.005**	**2.247**	**0.296**	**465**	**0.014**	**0.051**	**14.631**	**9.347**	**1.469**	**4.572**	**0.010**	**4.493**	**0.591**	**930**	**0.027**	**0.102**	**29.261**

CC008	Treated Area (acres) -->	3.56	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	G	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Mowers, Rear Engine Riding	G	1	4	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	8.041	0.129	0.092	0.000	0.006	0.006	13	0.013	0.007	1.378
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**4.403**	**0.699**	**2.266**	**0.005**	**0.139**	**0.084**	**455**	**0.013**	**0.051**	**14.631**	**17.613**	**2.795**	**9.064**	**0.019**	**0.557**	**0.338**	**1819**	**0.052**	**0.203**	**58.522**

CC010	Treated Area (acres) -->	4.36	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	G	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Mowers, Rear Engine Riding	G	1	4	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	8.041	0.129	0.092	0.000	0.006	0.006	13	0.013	0.007	1.378
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	3.17	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.10	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**4.403**	**0.699**	**2.266**	**0.005**	**0.139**	**0.084**	**455**	**0.013**	**0.051**	**14.631**	**17.613**	**2.795**	**9.064**	**0.019**	**0.557**	**0.338**	**1819**	**0.052**	**0.203**	**58.522**

CC012	Treated Area (acres) -->	2.40	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo	s																							
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	G	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Mowers, Rear Engine Riding	G	1	2	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	4.020	0.064	0.046	0.000	0.003	0.003	7	0.007	0.004	0.689
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**10.880**	**1.857**	**12.807**	**0.021**	**1.977**	**0.790**	**2066**	**0.037**	**0.130**	**29.261**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 16.71

EBRPD - Huckleberry Botanic Regional Preserve

HP001	Treated Area (acres) -->	1.06	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Fellers/Bunchers	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**

HP002	Treated Area (acres) -->	13.62	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	14	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1	14	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.773	3.745	0.059	0.001	0.011	0.010	18	0.020	0.233	2.239
Offroad	Chippers/Stump Grinders	D	1	14	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	9.609	2.479	29.974	0.043	0.929	0.855	4340	0.000	0.224	196.549
Offroad	Trimmers/Edgers/Brush Cutters	G	1	14	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	3	14	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	13.292	1.247	1.335	0.021	0.982	0.292	1950	0.099	0.112	NA
Onroad	Worker Trips-Unpaved Roads	G	0	14	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**33.503**	**9.332**	**31.401**	**0.065**	**1.928**	**1.162**	**6319**	**0.136**	**0.684**	**200.003**

HP003	Treated Area (acres) -->	0.78	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**

HP004	Treated Area (acres) -->	1.25	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 4.72

EBRPD - Lake Chabot Regional Park

LC010	Treated Area (acres) -->	4.72	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	5	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.001	0.553	0.009	0.000	0.002	0.001	3	0.004	0.034	0.331
Offroad	Chainsaws Preempt	G	1	5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	1	5	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	3.432	0.885	10.705	0.015	0.332	0.305	1550	0.000	0.080	70.196
Offroad	Trimmers/Edgers/Brush Cutters	G	1	5	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.367	0.111	0.003	0.000	0.001	0.001	1	0.002	0.007	0.103
Onroad	Worker Trips-Paved Roads	G	3	5	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	4.747	0.446	0.477	0.008	0.351	0.104	697	0.035	0.040	NA
Onroad	Worker Trips-Unpaved Roads	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**11.965**	**3.333**	**11.215**	**0.023**	**0.689**	**0.415**	**2257**	**0.049**	**0.244**	**71.430**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 4.72

EBRPD - Leona Canyon Regional Open Space

LC010	Treated Area (acres) -->	4.72	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	5	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.001	0.553	0.009	0.000	0.002	0.001	3	0.004	0.034	0.331
Offroad	Chainsaws Preempt	G	1	5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	1	5	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	3.432	0.885	10.705	0.015	0.332	0.305	1550	0.000	0.080	70.196
Offroad	Trimmers/Edgers/Brush Cutters	G	1	5	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.367	0.111	0.003	0.000	0.001	0.001	1	0.002	0.007	0.103
Onroad	Worker Trips-Paved Roads	G	3	5	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	4.747	0.446	0.477	0.008	0.351	0.104	697	0.035	0.040	NA
Onroad	Worker Trips-Unpaved Roads	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**11.965**	**3.333**	**11.215**	**0.023**	**0.689**	**0.415**	**2257**	**0.049**	**0.244**	**71.430**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 17.706

EBRPD - Miller/Knox Regional Shoreline

MK001	Treated Area (acres) -->	4.94	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	5	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.001	0.553	0.009	0.000	0.002	0.001	3	0.004	0.034	0.331
Offroad	Chainsaws Preempt	G	1	5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	1	5	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	3.432	0.885	10.705	0.015	0.332	0.305	1550	0.000	0.080	70.196
Offroad	Chippers/Stump Grinders-Trailer	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Fellers/Bunchers	D	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	5	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.367	0.111	0.003	0.000	0.001	0.001	1	0.002	0.007	0.103
Onroad	Worker Trips-Paved Roads	G	3	5	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	4.747	0.446	0.477	0.008	0.351	0.104	697	0.035	0.040	NA
Onroad	Worker Trips-Unpaved Roads	G	0	5	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.26	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.86	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.86	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.50	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**11.965**	**3.333**	**11.215**	**0.023**	**0.689**	**0.415**	**2257**	**0.049**	**0.244**	**71.430**

MK002	Treated Area (acres) -->	0.36	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**1.707**	**0.490**	**0.102**	**0.002**	**0.071**	**0.022**	**141**	**0.010**	**0.033**	**0.247**	**1.707**	**0.490**	**0.102**	**0.002**	**0.071**	**0.022**	**141**	**0.010**	**0.033**	**0.247**

MK003	Treated Area (acres) -->	2.42	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	G	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Trimmers/Edgers/Brush Cutters	D	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**4.786**	**1.333**	**4.486**	**0.009**	**0.275**	**0.166**	**903**	**0.019**	**0.098**	**28.572**

MK004	Treated Area (acres) -->	2.66	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	3	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.600	0.332	0.005	0.000	0.001	0.001	2	0.003	0.021	0.198
Offroad	Chainsaws Preempt	G	1	3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	1	3	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.059	0.531	6.423	0.009	0.199	0.183	930	0.000	0.048	42.118
Offroad	Chippers/Stump Grinders-Trailer	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Fellers/Bunchers	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	3	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.220	0.067	0.002	0.000	0.000	0.000	1	0.001	0.004	0.062
Onroad	Worker Trips-Paved Roads	G	3	3	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	2.848	0.267	0.286	0.005	0.211	0.063	418	0.021	0.024	NA
Onroad	Worker Trips-Unpaved Roads	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.04	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	2.62	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**10.290**	**2.689**	**19.141**	**0.031**	**2.961**	**1.181**	**3088**	**0.045**	**0.189**	**42.858**

MK005	Treated Area (acres) -->	7.33	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	7	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.401	0.775	0.012	0.000	0.002	0.002	4	0.006	0.048	0.463
Offroad	Chainsaws Preempt	G	1	7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders	D	1	7	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	4.804	1.240	14.987	0.021	0.465	0.427	2170	0.000	0.112	98.274
Offroad	Chippers/Stump Grinders-Trailer	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Fellers/Bunchers	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	7	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.514	0.156	0.004	0.000	0.001	0.001	1	0.002	0.010	0.145
Onroad	Worker Trips-Paved Roads	G	3	7	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	6.646	0.624	0.668	0.011	0.491	0.146	975	0.049	0.056	NA
Onroad	Worker Trips-Unpaved Roads	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.85	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	6.48	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**16.752**	**4.666**	**15.701**	**0.033**	**0.964**	**0.581**	**3160**	**0.068**	**0.342**	**100.002**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 52.67

EBRPD - Redwood Regional Park

RD001	Treated Area (acres) -->	0.23	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Chippers/Stump Grinders-Trailer	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Fellers/Bunchers	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**

RD002	Treated Area (acres) -->	4.26	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 yea		r																						
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Fellers/Bunchers	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	4.148	0.919	16.550	0.022	3.397	1.243	2312	0.021	0.057	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**13.720**	**3.586**	**25.521**	**0.041**	**3.948**	**1.575**	**4118**	**0.060**	**0.253**	**57.144**

RD003	Treated Area (acres) -->	10.45	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	10	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	10	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1	10	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.838	2.675	0.042	0.001	0.008	0.007	13	0.014	0.166	1.599
Offroad	Chippers/Stump Grinders	G	1	10	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Trimmers/Edgers/Brush Cutters	G	1	10	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	3	10	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	9.495	0.891	0.954	0.015	0.702	0.208	1393	0.070	0.080	NA
Onroad	Worker Trips-Unpaved Roads	G	0	10	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**23.931**	**6.666**	**22.430**	**0.046**	**1.377**	**0.830**	**4514**	**0.097**	**0.489**	**142.859**

RD004	Treated Area (acres) -->	25.51	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																								
Offroad	Air Compressors	G	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	26	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1	26	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	12.578	6.955	0.109	0.001	0.020	0.018	34	0.037	0.432	4.158
Offroad	Chippers/Stump Grinders	D	1	26	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	17.845	4.604	55.666	0.079	1.726	1.588	8060	0.000	0.415	365.019
Offroad	Fellers/Bunchers	D	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	26	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	3	26	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	24.686	2.317	2.480	0.039	1.824	0.542	3622	0.183	0.208	NA
Onroad	Worker Trips-Unpaved Roads	G	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	26	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	26.960	5.975	107.572	0.145	22.081	8.079	15030	0.138	0.371	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	26	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**89.180**	**23.306**	**165.889**	**0.266**	**25.662**	**10.237**	**26765**	**0.391**	**1.642**	**371.435**

RD005a	Treated Area (acres) -->	25.51	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 months																								
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Fellers/Bunchers	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**

RD005b	Treated Area (acres) -->	7.95	No. Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1	Ç	r																						
Offroad	Air Compressors	G	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	8	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1	8	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.870	2.140	0.034	0.000	0.006	0.006	10	0.011	0.133	1.279
Offroad	Chippers/Stump Grinders	D	1	8	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	5.491	1.417	17.128	0.024	0.531	0.489	2480	0.000	0.128	112.314
Offroad	Fellers/Bunchers	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	8	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	3	8	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	8	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.295	1.838	33.099	0.045	6.794	2.486	4625	0.043	0.114	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	8	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**27.440**	**7.171**	**51.043**	**0.082**	**7.896**	**3.150**	**8235**	**0.120**	**0.505**	**114.288**

RD009	Treated Area (acres) -->	2.66	No. Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	3	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.600	0.332	0.005	0.000	0.001	0.001	2	0.003	0.021	0.198
Offroad	Chainsaws Preempt	G	1	3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	1	3	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.059	0.531	6.423	0.009	0.199	0.183	930	0.000	0.048	42.118
Offroad	Fellers/Bunchers	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	3	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.220	0.067	0.002	0.000	0.000	0.000	1	0.001	0.004	0.062
Onroad	Worker Trips-Paved Roads	G	3	3	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	2.848	0.267	0.286	0.005	0.211	0.063	418	0.021	0.024	NA
Onroad	Worker Trips-Unpaved Roads	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**10.290**	**2.689**	**19.141**	**0.031**	**2.961**	**1.181**	**3088**	**0.045**	**0.189**	**42.858**

RD011	Treated Area (acres) -->	0.76	No. Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Fellers/Bunchers	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 44.56

EBRPD - Sibley Volcanic Regional Preserve

SR001	Treated Area (acres) -->	7.32	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	7	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.401	0.775	0.012	0.000	0.002	0.002	4	0.006	0.048	0.463
Offroad	Chainsaws Preempt	G	1	7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders	D	1	7	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	4.804	1.240	14.987	0.021	0.465	0.427	2170	0.000	0.112	98.274
Offroad	Loaders, Skid Steer	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	7	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.514	0.156	0.004	0.000	0.001	0.001	1	0.002	0.010	0.145
Onroad	Worker Trips-Paved Roads	G	3	7	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	6.646	0.624	0.668	0.011	0.491	0.146	975	0.049	0.056	NA
Onroad	Worker Trips-Unpaved Roads	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	3.12	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	1.97	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.41	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	7	1.037	0.230	4.137	0.006	0.849	0.311	578	NA	NA	NA	7.258	1.609	28.962	0.039	5.945	2.175	4046	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	NA	NA	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	NA	NA	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.010**	**0.049**	**14.286**	**24.010**	**6.275**	**44.662**	**0.071**	**6.909**	**2.756**	**7206**	**0.068**	**0.342**	**100.002**

SR003	Treated Area (acres) -->	3.39	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0		0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	3	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.600	0.332	0.005	0.000	0.001	0.001	2	0.003	0.021	0.198
Offroad	Chainsaws Preempt	G	1	3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	1	3	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.059	0.531	6.423	0.009	0.199	0.183	930	0.000	0.048	42.118
Offroad	Fellers/Bunchers	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	3	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.220	0.067	0.002	0.000	0.000	0.000	1	0.001	0.004	0.062
Onroad	Worker Trips-Paved Roads	G	3	3	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	2.848	0.267	0.286	0.005	0.211	0.063	418	0.021	0.024	NA
Onroad	Worker Trips-Unpaved Roads	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**10.290**	**2.689**	**19.141**	**0.031**	**2.961**	**1.181**	**3088**	**0.045**	**0.189**	**42.858**

SR004	Treated Area (acres) -->	11.77	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	12	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	12	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.083	0.794
Offroad	Chainsaws Preempt	G	1	12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders	G	1	12	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	8.236	2.125	25.692	0.037	0.797	0.733	3720	0.000	0.192	168.470
Offroad	Trimmers/Edgers/Brush Cutters	G	1	12	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.017	0.248
Onroad	Worker Trips-Paved Roads	G	3	12	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	11.393	1.069	1.145	0.018	0.842	0.250	1672	0.085	0.096	NA
Onroad	Worker Trips-Unpaved Roads	G	0	12	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**28.717**	**7.999**	**26.916**	**0.056**	**1.653**	**0.996**	**5416**	**0.117**	**0.586**	**171.431**

SR005	Treated Area (acres) -->	22.08	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 yea		r																						
Offroad	Air Compressors	G	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	22	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1	22	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	10.643	5.885	0.092	0.001	0.017	0.015	29	0.032	0.366	3.519
Offroad	Chippers/Stump Grinders	D	1	22	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	15.100	3.896	47.102	0.067	1.460	1.343	6820	0.000	0.351	308.863
Offroad	Fellers/Bunchers	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	22	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	3	22	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	20.888	1.960	2.099	0.033	1.544	0.459	3065	0.155	0.176	NA
Onroad	Worker Trips-Unpaved Roads	G	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	22	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	22.812	5.056	91.023	0.123	18.684	6.836	12718	0.117	0.314	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	22	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**75.460**	**19.721**	**140.368**	**0.225**	**21.714**	**8.662**	**22647**	**0.331**	**1.389**	**314.291**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 3.8

EBRPD - Sobrante Ridge Regional Preserve

SO001	Treated Area (acres) -->	3.80	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	4	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1	4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	1	4	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Trimmers/Edgers/Brush Cutters	G	1	4	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	3	4	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	1.65	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Chaparral	acres->	0.25	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	4.148	0.919	16.550	0.022	3.397	1.243	2312	0.021	0.057	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	4	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**13.720**	**3.586**	**25.521**	**0.041**	**3.948**	**1.575**	**4118**	**0.060**	**0.253**	**57.144**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 122.09

EBRPD - Tilden Regional Park

TI006	Treated Area (acres) -->	3.47	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 yea		r																						
Offroad	Air Compressors	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	3	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.600	0.332	0.005	0.000	0.001	0.001	2	0.003	0.021	0.198
Offroad	Chainsaws Preempt	G	1	3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	G	1	3	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	2.059	0.531	6.423	0.009	0.199	0.183	930	0.000	0.048	42.118
Offroad	Trimmers/Edgers/Brush Cutters	G	1	3	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.220	0.067	0.002	0.000	0.000	0.000	1	0.001	0.004	0.062
Onroad	Worker Trips-Paved Roads	G	3	3	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	2.848	0.267	0.286	0.005	0.211	0.063	418	0.021	0.024	NA
Onroad	Worker Trips-Unpaved Roads	G	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**10.290**	**2.689**	**19.141**	**0.031**	**2.961**	**1.181**	**3088**	**0.045**	**0.189**	**42.858**

TI012	Treated Area (acres) -->	51.12	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																								
Offroad	Air Compressors	G	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	51	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	10.206	5.643	0.089	0.001	0.016	0.015	28	0.046	0.351	3.374
Offroad	Chainsaws Preempt	G	1	51	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	24.673	13.642	0.214	0.003	0.039	0.036	67	0.073	0.848	8.157
Offroad	Chippers/Stump Grinders	D	1	51	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	35.003	9.031	109.191	0.155	3.385	3.114	15810	0.000	0.815	716.000
Offroad	Fellers/Bunchers	D	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	51	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	3.742	1.136	0.032	0.000	0.006	0.005	10	0.018	0.071	1.053
Onroad	Worker Trips-Paved Roads	G	3	51	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	48.422	4.544	4.865	0.077	3.579	1.063	7105	0.359	0.408	NA
Onroad	Worker Trips-Unpaved Roads	G	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	2.20	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	4.03	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	1.72	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	2.73	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	2.11	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	51	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	52.883	11.720	211.007	0.284	43.313	15.847	29482	0.271	0.729	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	51	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**174.930**	**45.716**	**325.398**	**0.521**	**50.338**	**20.081**	**52501**	**0.768**	**3.220**	**728.583**

TI013	Treated Area (acres) -->	14.70	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 yea		r																						
Offroad	Air Compressors	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	15	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	3.002	1.660	0.026	0.000	0.005	0.004	8	0.013	0.103	0.992
Offroad	Chainsaws Preempt	G	1	15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders	D	1	15	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	10.295	2.656	32.115	0.046	0.996	0.916	4650	0.000	0.240	210.588
Offroad	Fellers/Bunchers	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	15	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	1.101	0.334	0.010	0.000	0.002	0.002	3	0.005	0.021	0.310
Onroad	Worker Trips-Paved Roads	G	3	15	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	14.242	1.337	1.431	0.023	1.053	0.313	2090	0.106	0.120	NA
Onroad	Worker Trips-Unpaved Roads	G	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	15	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	15.554	3.447	62.061	0.084	12.739	4.661	8671	0.080	0.214	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	15	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**51.450**	**13.446**	**95.705**	**0.153**	**14.805**	**5.906**	**15441**	**0.226**	**0.947**	**214.289**

TI014	Treated Area (acres) -->	2.23	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**6.860**	**1.793**	**12.761**	**0.020**	**1.974**	**0.787**	**2059**	**0.030**	**0.126**	**28.572**

TI015	Treated Area (acres) -->	43.79	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 yea		r																						
Offroad	Air Compressors	G	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	44	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	8.805	4.868	0.076	0.001	0.014	0.013	24	0.039	0.303	2.911
Offroad	Chainsaws Preempt	G	1	44	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	21.287	11.769	0.185	0.002	0.033	0.031	58	0.063	0.732	7.037
Offroad	Chippers/Stump Grinders	D	1	44	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	30.199	7.791	94.204	0.134	2.921	2.687	13640	0.000	0.703	617.725
Offroad	Fellers/Bunchers	D	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	44	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	3.229	0.980	0.028	0.000	0.005	0.005	9	0.015	0.061	0.909
Onroad	Worker Trips-Paved Roads	G	3	44	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	41.776	3.920	4.197	0.067	3.087	0.917	6130	0.310	0.352	NA
Onroad	Worker Trips-Unpaved Roads	G	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	44	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	45.625	10.111	182.045	0.245	37.368	13.672	25435	0.234	0.629	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	44	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**150.920**	**39.441**	**280.735**	**0.449**	**43.429**	**17.324**	**45295**	**0.662**	**2.778**	**628.582**

TI016	Treated Area (acres) -->	1.11	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo		s																						
Offroad	Air Compressors	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	1	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066
Offroad	Chainsaws Preempt	G	1	1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1	1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Fellers/Bunchers	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	1	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021
Onroad	Worker Trips-Paved Roads	G	3	1	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA
Onroad	Worker Trips-Unpaved Roads	G	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**

TI022	Treated Area (acres) -->	5.67	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	6	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1	6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.100	0.960
Offroad	Chippers/Stump Grinders	D	1	6	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	4.118	1.062	12.846	0.018	0.398	0.366	1860	0.000	0.096	84.235
Offroad	Fellers/Bunchers	D	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Skid Steer	D	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	6	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	12.061	0.193	0.138	0.001	0.009	0.009	20	0.020	0.011	2.068
Offroad	Skidders	D	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	6	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	3	6	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	5.697	0.535	0.572	0.009	0.421	0.125	836	0.042	0.048	NA
Onroad	Worker Trips-Unpaved Roads	G	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	1.82	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	2.21	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.23	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	6	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	6.222	1.379	24.824	0.033	5.096	1.864	3468	0.032	0.086	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	6	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**32.641**	**5.571**	**38.420**	**0.062**	**5.931**	**2.371**	**6197**	**0.110**	**0.390**	**87.783**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

NO ACTION (Alternative 1) Treated Area (acres) --> 61.47

EBRPD - Wildcat Canyon Regional Park

WC003	Treated Area (acres) -->	1.67	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																								
Offroad	Air Compressors	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	2	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1	2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	1	2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Skidders	D	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	2	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	3	2	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA
Onroad	Worker Trips-Unpaved Roads	G	0	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Burn	Eucalyptus/Acacia	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Oak/Bay	acres->	0.19	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Pine	acres->	0.00	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Scrub	acres->	0.30	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Burn	Grass	acres->	0.06	0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**4.786**	**1.333**	**4.486**	**0.009**	**0.275**	**0.166**	**903**	**0.019**	**0.098**	**28.572**

WC004	Treated Area (acres) -->	6.95	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																								
Offroad	Air Compressors	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	7	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.401	0.775	0.012	0.000	0.002	0.002	4	0.006	0.048	0.463
Offroad	Chainsaws Preempt	G	1	7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders	D	1	7	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	4.804	1.240	14.987	0.021	0.465	0.427	2170	0.000	0.112	98.274
Offroad	Fellers/Bunchers	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Mowers, Rear Engine Riding	G	1	7	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	14.071	0.225	0.161	0.001	0.011	0.010	24	0.023	0.013	2.412
Offroad	Skidders	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	7	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.514	0.156	0.004	0.000	0.001	0.001	1	0.002	0.010	0.145
Onroad	Worker Trips-Paved Roads	G	3	7	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	6.646	0.624	0.668	0.011	0.491	0.146	975	0.049	0.056	NA
Onroad	Worker Trips-Unpaved Roads	G	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	7	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	7.258	1.609	28.962	0.039	5.945	2.175	4046	0.037	0.100	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	7	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**5.440**	**0.929**	**6.403**	**0.010**	**0.989**	**0.395**	**1033**	**0.018**	**0.065**	**14.631**	**38.081**	**6.500**	**44.823**	**0.072**	**6.920**	**2.766**	**7230**	**0.129**	**0.455**	**102.414**

WC009	Treated Area (acres) -->	8.61	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																								
Offroad	Air Compressors	G	0	9	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	9	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	1.801	0.996	0.016	0.000	0.003	0.003	5	0.008	0.062	0.595
Offroad	Chainsaws Preempt	G	1	9	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.354	2.407	0.038	0.000	0.007	0.006	12	0.013	0.150	1.439
Offroad	Chippers/Stump Grinders	G	1	9	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	6.177	1.594	19.269	0.027	0.597	0.550	2790	0.000	0.144	126.353
Offroad	Trimmers/Edgers/Brush Cutters	G	1	9	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.660	0.201	0.006	0.000	0.001	0.001	2	0.003	0.012	0.186
Onroad	Worker Trips-Paved Roads	G	3	9	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	8.545	0.802	0.859	0.014	0.632	0.188	1254	0.063	0.072	NA
Onroad	Worker Trips-Unpaved Roads	G	9	9	0.609	0.080	0.045	0.000	4.742	0.475	23	0.001	0.001	NA	5.477	0.722	0.407	0.002	42.675	4.276	207	0.010	0.012	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.002**	**0.747**	**2.288**	**0.005**	**4.879**	**0.558**	**474**	**0.011**	**0.050**	**14.286**	**27.014**	**6.722**	**20.594**	**0.044**	**43.915**	**5.023**	**4269**	**0.098**	**0.452**	**128.574**

WC010	Treated Area (acres) -->	10.54	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	11	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	11	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	2.201	1.217	0.019	0.000	0.003	0.003	6	0.010	0.076	0.728
Offroad	Chainsaws Preempt	G	1	11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders	G	1	11	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	7.550	1.948	23.551	0.033	0.730	0.672	3410	0.000	0.176	154.431
Offroad	Loaders, Skid Steer	D	0	11	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Trimmers/Edgers/Brush Cutters	G	1	11	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	0.807	0.245	0.007	0.000	0.001	0.001	2	0.004	0.015	0.227
Onroad	Worker Trips-Paved Roads	G	3	11	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	10.444	0.980	1.049	0.017	0.772	0.229	1532	0.078	0.088	NA
Onroad	Worker Trips-Unpaved Roads	G	0	11	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	11	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	11.406	2.528	45.511	0.061	9.342	3.418	6359	0.059	0.157	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	11	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**3.430**	**0.896**	**6.380**	**0.010**	**0.987**	**0.394**	**1029**	**0.015**	**0.063**	**14.286**	**37.730**	**9.860**	**70.184**	**0.112**	**10.857**	**4.331**	**11324**	**0.166**	**0.695**	**157.145**

WC011	Treated Area (acres) -->	33.70	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	0	34	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Chainsaws	G	1	34	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	6.804	3.762	0.059	0.001	0.011	0.010	18	0.030	0.234	2.249
Offroad	Chainsaws Preempt	G	1	34	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	16.449	9.094	0.143	0.002	0.026	0.024	44	0.049	0.565	5.438
Offroad	Chippers/Stump Grinders	G	1	34	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	23.336	6.020	72.794	0.103	2.257	2.076	10540	0.000	0.543	477.333
Offroad	Trimmers/Edgers/Brush Cutters	G	1	34	0.073	0.022	0.001	0.000	0.000	0.000	0	0.000	0.001	0.021	2.495	0.758	0.022	0.000	0.004	0.004	7	0.012	0.047	0.702
Onroad	Worker Trips-Paved Roads	G	3	34	0.949	0.089	0.095	0.002	0.070	0.021	139	0.007	0.008	NA	32.282	3.029	3.243	0.052	2.386	0.709	4737	0.240	0.272	NA
Onroad	Worker Trips-Unpaved Roads	G	0	34	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	34	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	34	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming					**2.393**	**0.667**	**2.243**	**0.005**	**0.138**	**0.083**	**451**	**0.010**	**0.049**	**14.286**	**81.365**	**22.664**	**76.261**	**0.158**	**4.683**	**2.822**	**15346**	**0.331**	**1.661**	**485.722**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

Proposed Action: Totals-Summary

Site	Total Emissions (tons)						Total Emissions (tonnes)				Fuel Use (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed Action												
UCB-Claremont Canyon	1.13	0.19	1.23	0.00	0.42	0.09	193.40	0.002	0.014	194.26	102.14	15,672.44
UCB-Strawberry Canyon	1.30	0.22	1.43	0.00	0.46	0.10	224.09	0.002	0.016	225.08	119.69	18,216.61
UCB-Frowning Ridge	2.60	0.43	2.80	0.01	0.90	0.20	441.92	0.004	0.032	443.89	239.38	36,469.67
Oakland - North Hills Skyline	1.21	0.20	1.31	0.00	0.42	0.09	206.39	0.002	0.015	207.31	111.71	17,002.17
Oakland - Caldecott Tunnel	0.95	0.16	1.03	0.00	0.33	0.07	162.97	0.002	0.012	163.70	87.77	13,358.85
EBRPD - Anthony Chabot Regional Park	25.66	3.69	6.15	0.01	3.59	2.45	696.18	0.042	0.945	729.15	1,088.68	58,996.19
EBRPD - Claremont Canyon Regional Preserve	3.92	0.51	0.61	0.00	0.48	0.35	56.69	0.010	0.138	62.83	264.73	4,308.68
EBRPD - Huckleberry Botanic Regional Preserve	2.68	0.53	0.24	0.00	0.28	0.25	6.51	0.005	0.101	10.14	133.95	364.33
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.07	0.01	0.01	0.00	0.01	0.01	0.39	0.000	0.002	0.48	7.74	-
EBRPD - Leona Canyon Regional Open Space	0.82	0.08	0.05	0.00	0.07	0.05	1.94	0.001	0.021	2.62	123.82	-
EBRPD - Miller/Knox Regional Shoreline	5.96	0.62	0.78	0.00	0.62	0.50	65.67	0.012	0.194	73.60	426.41	5,429.85
EBRPD - Redwood Regional Park	7.55	0.88	1.19	0.00	0.91	0.72	102.95	0.025	0.286	116.75	200.49	8,509.03
EBRPD - Sibley Volcanic Regional Preserve	7.50	0.76	1.05	0.00	0.85	0.68	87.71	0.024	0.266	100.67	284.58	7,080.83
EBRPD - Sobrante Ridge Regional Preserve	0.35	0.06	0.02	0.00	0.03	0.02	1.12	0.000	0.008	1.40	54.17	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	19.71	2.56	3.41	0.00	2.45	1.95	305.35	0.073	0.788	344.55	302.70	25,931.12
EBRPD - Wildcat Canyon Regional Park	6.62	0.70	0.58	0.00	0.66	0.46	44.38	0.006	0.174	49.83	969.53	2,188.85
Proposed Action Totals	**88.03**	**11.60**	**21.88**	**0.03**	**12.46**	**8.00**	**2,597.66**	**0.211**	**3.011**	**2,726.28**	**4,517.49**	**213,528.61**

Site	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Connected Actions												
UCB-Claremont Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Strawberry Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Frowning Ridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - North Hills Skyline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - Caldecott Tunnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Anthony Chabot Regional Park	84.19	12.02	15.92	0.02	10.82	8.45	1,500.68	0.358	3.456	1,684.11	1,257.61	127,609.70
EBRPD - Claremont Canyon Regional Preserve	20.12	2.12	1.31	0.00	1.87	1.41	58.55	0.023	0.546	77.22	2,879.20	321.06
EBRPD - Huckleberry Botanic Regional Preserve	0.07	0.01	0.00	0.00	0.01	0.01	0.12	0.000	0.002	0.18	7.74	-
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Leona Canyon Regional Open Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Miller/Knox Regional Shoreline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Redwood Regional Park	19.00	1.79	1.68	0.00	1.86	1.56	86.37	0.066	0.621	120.00	1,364.42	5,063.91
EBRPD - Sibley Volcanic Regional Preserve	22.62	3.26	4.29	0.00	2.95	2.30	404.15	0.092	0.940	452.45	246.64	34,412.16
EBRPD - Sobrante Ridge Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	26.40	3.71	3.97	0.00	3.21	2.65	307.29	0.111	1.097	364.73	462.67	25,524.72
EBRPD - Wildcat Canyon Regional Park	10.05	1.38	1.51	0.00	1.21	1.02	114.65	0.044	0.422	137.08	102.53	9,715.52
Connected Actions Totals	**182.45**	**24.28**	**28.67**	**0.03**	**21.93**	**17.40**	**2,471.82**	**0.694**	**7.084**	**2,835.78**	**6,320.81**	**202,647.08**
Combined Proposed & Connect Action Totals	**270.48**	**35.88**	**50.54**	**0.06**	**34.39**	**25.40**	**5,069.47**	**0.905**	**10.095**	**5,562.06**	**10,838.30**	**416,175.68**

Site	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Cumulative Actions												
UCB-Claremont Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Strawberry Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Frowning Ridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - North Hills Skyline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - Caldecott Tunnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Anthony Chabot Regional Park	100.61	14.60	16.42	0.02	12.50	10.29	1,337.36	0.417	4.261	1,556.21	1,109.31	114,064.70
EBRPD - Claremont Canyon Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Huckleberry Botanic Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Kennedy Grove Regional Recreation Area	1.89	0.21	0.14	0.00	0.18	0.15	4.33	0.007	0.061	7.75	185.72	34.51
EBRPD - Lake Chabot Regional Park	22.75	3.05	2.53	0.00	2.50	2.18	134.08	0.095	0.910	182.50	837.61	10,201.30
EBRPD - Leona Canyon Regional Open Space	4.11	0.41	0.26	0.00	0.38	0.27	13.01	0.004	0.103	16.28	650.03	-
EBRPD - Miller/Knox Regional Shoreline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Redwood Regional Park	1.92	0.26	0.31	0.00	0.24	0.19	24.83	0.008	0.079	29.04	28.24	2,029.76
EBRPD - Sibley Volcanic Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Sobrante Ridge Regional Preserve	0.13	0.01	0.01	0.00	0.01	0.01	0.51	0.000	0.004	0.74	15.48	-
EBRPD - Temescal Regional Recreation Area	0.02	0.00	0.00	0.00	0.00	0.00	0.39	0.000	0.000	0.40	8.08	-
EBRPD - Tilden Regional Park	63.55	8.49	9.81	0.01	7.70	6.41	772.15	0.270	2.639	911.27	602.49	65,621.86
EBRPD - Wildcat Canyon Regional Park	0.58	0.08	0.12	0.00	0.09	0.06	11.43	0.002	0.023	12.58	12.53	795.90
Cumulative Actions Totals	**195.57**	**27.12**	**29.59**	**0.03**	**23.61**	**19.57**	**2,298.09**	**0.803**	**8.080**	**2,716.75**	**3,449.49**	**192,748.03**

Proposed Action: Totals-Summary

	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
Category	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO_2**	**N_2O**	**CH_4**	**CO_2eq**	**Gasoline**	**Diesel**
Proposed Action												
Offroad	21.58	2.53	15.30	0.03	0.81	0.74	2,150.61	0.017	0.184	2,159.82	4,517.49	213,528.61
Onroad	3.15	0.34	1.13	0.01	4.76	0.56	447.04	0.018	0.022	453.13	-	-
Dust	0.00	0.00	0.00	0.00	0.03	0.00	-	-	-	-	-	-
Burn	63.30	8.72	5.44	0.00	6.86	6.70	-	0.176	2.805	113.32	-	-
Proposed Action Totals	**88.03**	**11.60**	**21.88**	**0.03**	**12.46**	**8.00**	**2,597.66**	**0.211**	**3.011**	**2,726.28**	**4,517.49**	**213,528.61**

	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
Category	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO_2**	**N_2O**	**CH_4**	**CO_2eq**	**Gasoline**	**Diesel**
Connected Actions												
Offroad	26.41	2.65	14.64	0.03	0.83	0.76	2,049.5	0.02	0.19	2,060.6	6,320.81	202,647.08
Onroad	3.15	0.33	0.89	0.00	4.66	0.54	422.3	0.02	0.02	428.4	-	-
Dust	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-	-
Burn	152.89	21.29	13.14	0.00	16.44	16.10	-	0.65	6.87	346.7	-	-
Connected Actions Totals	**182.45**	**24.28**	**28.67**	**0.03**	**21.93**	**17.40**	**2,471.8**	**0.69**	**7.08**	**2,835.8**	**6,320.81**	**202,647.08**
Combined Proposed & Connect Action Totals	**270.48**	**35.88**	**50.54**	**0.06**	**34.39**	**25.40**	**5,069.5**	**0.91**	**10.09**	**5,562.1**	**10,838.30**	**416,175.68**

	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
Category	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO_2**	**N_2O**	**CH_4**	**CO_2eq**	**Gasoline**	**Diesel**
Cumulative Actions												
Offroad	17.66	2.26	13.82	0.02	0.71	0.66	1938.51	0.014	0.165	1946.18	3,449.49	192,748.03
Onroad	2.73	0.29	0.70	0.00	4.04	0.46	359.57	0.016	0.019	364.87	-	-
Dust	-	-	-	-	0.02	0.00	0.00	0.000	0.000	0.00	-	-
Burn	175.18	24.58	15.07	-	18.84	18.45	0.00	0.774	7.897	405.71	-	-
Cumulative Actions Totals	**195.57**	**27.12**	**29.59**	**0.03**	**23.61**	**19.57**	**2298.09**	**0.803**	**8.080**	**2716.75**	**3,449.49**	**192,748.03**

Proposed Action: Totals-Summary

Site	Total Emissions (tons)						Total Emissions (tonnes)				Fuel Use (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed and Connected Actions												
UCB-Claremont Canyon	1.13	0.19	1.23	0.00	0.42	0.09	193.40	0.002	0.014	194.26	102.14	15,672.44
UCB-Strawberry Canyon	1.30	0.22	1.43	0.00	0.46	0.10	224.09	0.002	0.016	225.08	119.69	18,216.61
UCB-Frowning Ridge	2.60	0.43	2.80	0.01	0.90	0.20	441.92	0.004	0.032	443.89	239.38	36,469.67
Oakland - North Hills Skyline	1.21	0.20	1.31	0.00	0.42	0.09	206.39	0.002	0.015	207.31	111.71	17,002.17
Oakland - Caldecott Tunnel	0.95	0.16	1.03	0.00	0.33	0.07	162.97	0.002	0.012	163.70	87.77	13,358.85
EBRPD - Anthony Chabot Regional Park	109.84	15.72	22.06	0.03	14.41	10.90	2,196.86	0.400	4.401	2,413.26	2,346.29	186,605.89
EBRPD - Claremont Canyon Regional Preserve	24.04	2.63	1.92	0.00	2.35	1.76	115.25	0.034	0.684	140.05	3,143.93	4,629.74
EBRPD - Huckleberry Botanic Regional Preserve	2.75	0.54	0.24	0.00	0.28	0.25	6.63	0.005	0.103	10.32	141.69	364.33
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.07	0.01	0.01	0.00	0.01	0.01	0.39	0.000	0.002	0.48	7.74	-
EBRPD - Leona Canyon Regional Open Space	0.82	0.08	0.05	0.00	0.07	0.05	1.94	0.001	0.021	2.62	123.82	-
EBRPD - Miller/Knox Regional Shoreline	5.96	0.62	0.78	0.00	0.62	0.50	65.67	0.012	0.194	73.60	426.41	5,429.85
EBRPD - Redwood Regional Park	26.56	2.67	2.86	0.00	2.77	2.28	189.32	0.092	0.907	236.75	1,564.91	13,572.94
EBRPD - Sibley Volcanic Regional Preserve	30.12	4.02	5.34	0.01	3.80	2.98	491.86	0.116	1.206	553.12	531.22	41,493.00
EBRPD - Sobrante Ridge Regional Preserve	0.35	0.06	0.02	0.00	0.03	0.02	1.12	0.000	0.008	1.40	54.17	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	46.11	6.27	7.38	0.01	5.66	4.60	612.63	0.184	1.886	709.28	765.36	51,455.84
EBRPD - Wildcat Canyon Regional Park	16.67	2.08	2.08	0.00	1.87	1.48	159.04	0.050	0.595	186.91	1,072.06	11,904.37
Proposed Action Totals	**270.48**	**35.88**	**50.54**	**0.06**	**34.39**	**25.40**	**5,069.47**	**0.905**	**10.095**	**5,562.06**	**10,838.30**	**416,175.68**

Proposed Action: Totals-Summary

Category	Total Emission (tons)						Total Emissions (tonnes)				Fuel (gal)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed and Connected Actions												
Offroad	47.99	5.18	29.94	0.05	1.64	1.51	4,200.14	0.04	0.37	4,220.47	10,838.30	416,175.68
Onroad	6.29	0.68	2.02	0.01	9.42	1.09	869.33	0.04	0.04	881.53	0.00	0.00
Dust	0.00	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Burn	216.19	30.02	18.58	0.00	23.30	22.80	0.00	0.83	9.68	460.06	0.00	0.00
Proposed Action Totals	**270.48**	**35.88**	**50.54**	**0.06**	**34.39**	**25.40**	**5,069.47**	**0.91**	**10.09**	**5,562.06**	**10,838.30**	**416,175.68**

Proposed Action: Totals-Summary

Site	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed Action												
UCB-Claremont Canyon	0.11	0.02	0.12	0.00	0.04	0.01	19.34	0.000	0.001	19.43	10.21	1,567.24
UCB-Strawberry Canyon	0.13	0.02	0.14	0.00	0.05	0.01	22.41	0.000	0.002	22.51	11.97	1,821.66
UCB-Frowning Ridge	0.26	0.04	0.28	0.00	0.09	0.02	44.19	0.000	0.003	44.39	23.94	3,646.97
Oakland - North Hills Skyline	0.12	0.02	0.13	0.00	0.04	0.01	20.64	0.000	0.001	20.73	11.17	1,700.22
Oakland - Caldecott Tunnel	0.10	0.02	0.10	0.00	0.03	0.01	16.30	0.000	0.001	16.37	8.78	1,335.88
EBRPD - Anthony Chabot Regional Park	2.57	0.37	0.61	0.00	0.36	0.25	69.62	0.004	0.095	72.92	108.87	5,899.62
EBRPD - Claremont Canyon Regional Preserve	0.39	0.05	0.06	0.00	0.05	0.03	5.67	0.001	0.014	6.28	26.47	430.87
EBRPD - Huckleberry Botanic Regional Preserve	0.27	0.05	0.02	0.00	0.03	0.02	0.65	0.000	0.010	1.01	13.39	36.43
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.000	0.000	0.05	0.77	-
EBRPD - Leona Canyon Regional Open Space	0.08	0.01	0.00	0.00	0.01	0.01	0.19	0.000	0.002	0.26	12.38	-
EBRPD - Miller/Knox Regional Shoreline	0.60	0.06	0.08	0.00	0.06	0.05	6.57	0.001	0.019	7.36	42.64	542.98
EBRPD - Redwood Regional Park	0.76	0.09	0.12	0.00	0.09	0.07	10.29	0.003	0.029	11.68	20.05	850.90
EBRPD - Sibley Volcanic Regional Preserve	0.75	0.08	0.11	0.00	0.09	0.07	8.77	0.002	0.027	10.07	28.46	708.08
EBRPD - Sobrante Ridge Regional Preserve	0.03	0.01	0.00	0.00	0.00	0.00	0.11	0.000	0.001	0.14	5.42	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	1.97	0.26	0.34	0.00	0.24	0.20	30.53	0.007	0.079	34.45	30.27	2,593.11
EBRPD - Wildcat Canyon Regional Park	0.66	0.07	0.06	0.00	0.07	0.05	4.44	0.001	0.017	4.98	96.95	218.88
Proposed Action Totals	**8.80**	**1.16**	**2.19**	**0.00**	**1.25**	**0.80**	**259.77**	**0.021**	**0.301**	**272.63**	**451.75**	**21,352.86**

Site	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Connected Actions												
UCB-Claremont Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Strawberry Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
UCB-Frowning Ridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - North Hills Skyline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
Oakland - Caldecott Tunnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Anthony Chabot Regional Park	8.42	1.20	1.59	0.00	1.08	0.84	150.07	0.036	0.346	168.41	125.76	12,760.97
EBRPD - Claremont Canyon Regional Preserve	2.01	0.21	0.13	0.00	0.19	0.14	5.86	0.002	0.055	7.72	287.92	32.11
EBRPD - Huckleberry Botanic Regional Preserve	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.000	0.000	0.02	0.77	-
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Leona Canyon Regional Open Space	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Miller/Knox Regional Shoreline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Redwood Regional Park	1.90	0.18	0.17	0.00	0.19	0.16	8.64	0.007	0.062	12.00	136.44	506.39
EBRPD - Sibley Volcanic Regional Preserve	2.26	0.33	0.43	0.00	0.29	0.23	40.42	0.009	0.094	45.25	24.66	3,441.22
EBRPD - Sobrante Ridge Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	-	-
EBRPD - Tilden Regional Park	2.64	0.37	0.40	0.00	0.32	0.27	30.73	0.011	0.110	36.47	46.27	2,552.47
EBRPD - Wildcat Canyon Regional Park	1.00	0.14	0.15	0.00	0.12	0.10	11.47	0.004	0.042	13.71	10.25	971.55
Connected Actions Totals	**18.24**	**2.43**	**2.87**	**0.00**	**2.19**	**1.74**	**247.18**	**0.069**	**0.708**	**283.58**	**632.08**	**20,264.71**
Combined Proposed & Connect Action Totals	**27.05**	**3.59**	**5.05**	**0.01**	**3.44**	**2.54**	**506.95**	**0.09**	**1.01**	**556.21**	**1,083.83**	**41,617.57**

Site	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Cumulative Actions												
UCB-Claremont Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
UCB-Strawberry Canyon	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
UCB-Frowning Ridge	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
Oakland - North Hills Skyline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
Oakland - Caldecott Tunnel	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
EBRPD - Anthony Chabot Regional Park	10.06	1.46	1.64	0.00	1.25	1.03	133.74	0.042	0.426	155.62	110.93	11406.47
EBRPD - Claremont Canyon Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
EBRPD - Huckleberry Botanic Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
EBRPD - Kennedy Grove Regional Recreation Area	0.19	0.02	0.01	0.00	0.02	0.02	0.43	0.001	0.006	0.78	18.57	3.45
EBRPD - Lake Chabot Regional Park	2.28	0.31	0.25	0.00	0.25	0.22	13.41	0.009	0.091	18.25	83.76	1020.13
EBRPD - Leona Canyon Regional Open Space	0.41	0.04	0.03	0.00	0.04	0.03	1.30	0.000	0.010	1.63	65.00	0.00
EBRPD - Miller/Knox Regional Shoreline	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
EBRPD - Redwood Regional Park	0.19	0.03	0.03	0.00	0.02	0.02	2.48	0.001	0.008	2.90	2.82	202.98
EBRPD - Sibley Volcanic Regional Preserve	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000	0.00	0.00	0.00
EBRPD - Sobrante Ridge Regional Preserve	0.01	0.00	0.00	0.00	0.00	0.00	0.05	0.000	0.000	0.07	1.55	0.00
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.000	0.000	0.04	0.81	0.00
EBRPD - Tilden Regional Park	6.36	0.85	0.98	0.00	0.77	0.64	77.21	0.027	0.264	91.13	60.25	6562.19
EBRPD - Wildcat Canyon Regional Park	0.06	0.01	0.01	0.00	0.01	0.01	1.14	0.000	0.002	1.26	1.25	79.59
Cumulative Actions Totals	**19.56**	**2.71**	**2.96**	**0.00**	**2.36**	**1.96**	**229.81**	**0.080**	**0.808**	**271.68**	**344.95**	**19274.80**

Proposed Action: Totals-Summary

Category	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed Action												
Offroad	2.16	0.25	1.53	0.00	0.08	0.07	215.06	0.00	0.02	215.98	451.75	21,352.86
Onroad	0.31	0.03	0.11	0.00	0.48	0.06	44.70	0.00	0.00	45.31	-	-
Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
Burn	6.33	0.87	0.54	0.00	0.69	0.67	0.00	0.02	0.28	11.33	-	-
Proposed Action Totals	**8.80**	**1.16**	**2.19**	**0.00**	**1.25**	**0.80**	**259.77**	**0.02**	**0.30**	**272.63**	**451.75**	**21,352.86**

Category	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Connected Actions												
Offroad	2.64	0.26	1.46	0.00	0.08	0.08	204.95	0.00	0.02	206.06	632.08	20,264.71
Onroad	0.31	0.03	0.09	0.00	0.47	0.05	42.23	0.00	0.00	42.84	-	-
Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
Burn	15.29	2.13	1.31	0.00	1.64	1.61	0.00	0.07	0.69	34.67	-	-
Connected Actions Totals	**18.24**	**2.43**	**2.87**	**0.00**	**2.19**	**1.74**	**247.18**	**0.07**	**0.71**	**283.58**	**632.08**	**20,264.71**
Combined Proposed & Connect Action Totals	**27.05**	**3.59**	**5.05**	**0.01**	**3.44**	**2.54**	**506.95**	**0.09**	**1.01**	**556.21**	**1,083.83**	**41,617.57**

Category	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Cumulative Actions												
Offroad	1.77	0.23	1.38	0.00	0.07	0.07	193.85	0.00	0.02	194.62	344.95	19,274.80
Onroad	0.27	0.03	0.07	0.00	0.40	0.05	35.96	0.00	0.00	36.49	-	-
Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
Burn	17.52	2.46	1.51	0.00	1.88	1.84	0.00	0.08	0.79	40.57	-	-
Cumulative Actions Totals	**19.56**	**2.71**	**2.96**	**0.00**	**2.36**	**1.96**	**229.81**	**0.08**	**0.81**	**271.68**	**344.95**	**19,274.80**

Proposed Action: Totals-Summary

Site	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed and Connected Actions												
UCB-Claremont Canyon	0.11	0.02	0.12	0.00	0.04	0.01	19.34	0.00	0.00	19.43	10.21	1,567.24
UCB-Strawberry Canyon	0.13	0.02	0.14	0.00	0.05	0.01	22.41	0.00	0.00	22.51	11.97	1,821.66
UCB-Frowning Ridge	0.26	0.04	0.28	0.00	0.09	0.02	44.19	0.00	0.00	44.39	23.94	3,646.97
Oakland - North Hills Skyline	0.12	0.02	0.13	0.00	0.04	0.01	20.64	0.00	0.00	20.73	11.17	1,700.22
Oakland - Caldecott Tunnel	0.10	0.02	0.10	0.00	0.03	0.01	16.30	0.00	0.00	16.37	8.78	1,335.88
EBRPD - Anthony Chabot Regional Park	10.98	1.57	2.21	0.00	1.44	1.09	219.69	0.04	0.44	241.33	234.63	18,660.59
EBRPD - Claremont Canyon Regional Preserve	2.40	0.26	0.19	0.00	0.24	0.18	11.52	0.00	0.07	14.01	314.39	462.97
EBRPD - Huckleberry Botanic Regional Preserve	0.28	0.05	0.02	0.00	0.03	0.03	0.66	0.00	0.01	1.03	14.17	36.43
EBRPD - Kennedy Grove Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
EBRPD - Lake Chabot Regional Park	0.01	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.05	0.77	-
EBRPD - Leona Canyon Regional Open Space	0.08	0.01	0.00	0.00	0.01	0.01	0.19	0.00	0.00	0.26	12.38	-
EBRPD - Miller/Knox Regional Shoreline	0.60	0.06	0.08	0.00	0.06	0.05	6.57	0.00	0.02	7.36	42.64	542.98
EBRPD - Redwood Regional Park	2.66	0.27	0.29	0.00	0.28	0.23	18.93	0.01	0.09	23.67	156.49	1,357.29
EBRPD - Sibley Volcanic Regional Preserve	3.01	0.40	0.53	0.00	0.38	0.30	49.19	0.01	0.12	55.31	53.12	4,149.30
EBRPD - Sobrante Ridge Regional Preserve	0.03	0.01	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.14	5.42	-
EBRPD - Temescal Regional Recreation Area	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-	-
EBRPD - Tilden Regional Park	4.61	0.63	0.74	0.00	0.57	0.46	61.26	0.02	0.19	70.93	76.54	5,145.58
EBRPD - Wildcat Canyon Regional Park	1.67	0.21	0.21	0.00	0.19	0.15	15.90	0.00	0.06	18.69	107.21	1,190.44
Proposed Action Totals	**27.05**	**3.59**	**5.05**	**0.01**	**3.44**	**2.54**	**506.95**	**0.09**	**1.01**	**556.21**	**1,083.83**	**41,617.57**

Proposed Action: Totals-Summary

Category	Annual Emissions (tons/year)						Annual Emissions (tonnes/year)				Annual Fuel Use (gal/yr)	
	CO	VOC	NOx	SOx	PM10	PM2.5	CO_2	N_2O	CH_4	CO_2eq	Gasoline	Diesel
Proposed and Connected Actions												
Offroad	4.80	0.52	2.99	0.01	0.16	0.15	420.01	0.00	0.04	422.05	1,083.83	41,617.57
Onroad	0.63	0.07	0.20	0.00	0.94	0.11	86.93	0.00	0.00	88.15	0.00	0.00
Dust	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Burn	21.62	3.00	1.86	0.00	2.33	2.28	0.00	0.08	0.97	46.01	0.00	0.00
Proposed Action Totals	**27.05**	**3.59**	**5.05**	**0.01**	**3.44**	**2.54**	**506.95**	**0.09**	**1.01**	**556.21**	**1,083.83**	**41,617.57**

PROPOSED ACTION Treated Area (acres) --> 42.81

UCB-Claremont Canyon

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: 1 year (1st year of action)																								
Offroad	Dozers (Crawler Tractors)	D	1	7	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	11.194	2.980	17.713	0.018	1.561	1.436	1517	0.000	0.269	69.634
Offroad	Loaders, Rubber Tired	D	1	7	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	8.913	2.084	12.915	0.015	1.127	1.037	1265	0.000	0.188	57.968
Onroad	Dump Truck Trips-Paved Roads	D	1	7	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	2.832	0.625	15.431	0.021	3.035	1.036	2175	0.020	0.054	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	7	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.305	0.068	0.822	0.001	12.487	1.262	94	0.001	0.002	NA
Onroad	Water Truck-Paved Roads	D	1	7	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	1.536	0.339	7.939	0.011	1.521	0.521	1108	0.010	0.027	NA
Onroad	Water Truck-Unpaved Roads	D	1	7	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.305	0.068	0.822	0.001	12.487	1.262	94	0.001	0.002	NA
Onroad	Worker Trips-Paved Roads	G	4	7	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	8.862	0.832	0.890	0.014	0.655	0.195	1300	0.066	0.075	NA
Onroad	Worker Trips-Unpaved Roads	G	4	7	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.893	0.250	0.141	0.001	14.752	1.478	71	0.004	0.004	NA
Dust	Treated Area (acres) --> (acres)		0.19	7	NA	NA	NA	NA	1.900	0.190	NA	NA	NA	NA	NA	NA	NA	NA	13.300	1.330	NA	NA	NA	NA
Totals For Access Road Construction					**5.120**	**1.035**	**8.096**	**0.012**	**8.704**	**1.365**	**1089**	**0.014**	**0.089**	**18.229**	**35.840**	**7.245**	**56.672**	**0.081**	**60.926**	**9.557**	**7624**	**0.101**	**0.621**	**127.602**

Activity	Treated Area (acres) --> Equipment Type	42.81 Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	1	128	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	343.586	9.362	6.878	0.016	4.793	4.409	572	0.721	0.523	59.443
Offroad	Chainsaws	G	2	128	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	51.231	28.325	0.445	0.006	0.081	0.074	138	0.230	1.761	16.936
Offroad	Chainsaws Preempt	G	1	128	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	61.924	34.238	0.538	0.007	0.097	0.090	167	0.184	2.128	20.472
Offroad	Chippers/Stump Grinders	D	2	128	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	175.704	45.331	548.095	0.779	16.993	15.633	79359	0.000	4.090	3594.037
Offroad	Fellers/Bunchers	D	1	128	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	194.093	60.380	581.600	1.127	18.462	16.985	100161	0.000	5.448	4534.786
Offroad	Skidders	D	2	128	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	935.128	132.940	1053.655	1.830	58.538	53.855	162686	0.000	11.995	7416.015
Offroad	Trimmers/Edgers/Brush Cutters	G	2	128	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	18.785	5.705	0.163	0.002	0.030	0.027	51	0.090	0.355	5.286
Onroad	Worker Trips-Paved Roads	G	8	128	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	324.082	30.413	32.560	0.517	23.951	7.117	47554	2.406	2.729	NA
Onroad	Worker Trips-Unpaved Roads	G	8	128	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	69.235	9.132	5.148	0.029	539.501	54.060	2611	0.131	0.149	NA
Onroad	Log/Chip Haul Truck Trips-Paved	1		43	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	44.588	9.882	177.908	0.240	36.519	13.361	24857	0.229	0.614	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved R	D	1	43	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	2.099	0.458	5.065	0.006	76.727	7.772	585	0.005	0.014	NA
Totals For Cutting/Skidding/Chipping/Trimming					**18.019**	**3.010**	**21.552**	**0.039**	**6.025**	**1.500**	**3651**	**0.035**	**0.242**	**122.242**	**2218.355**	**365.706**	**2406.989**	**4.554**	**698.964**	**165.611**	**418157**	**3.990**	**29.791**	**15646.976**

Offroad Source: CARB OFFROAD 2007

Onroad Source: CARB EMFAC 2011

Dust Source: MRI 1996

No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.

No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.

Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.

Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.

*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 56.34

UCB-Strawberry Canyon

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: (none)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

Activity	Treated Area (acres) --> 56.34 Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	1	150	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	402.640	10.971	8.060	0.019	5.617	5.167	670	0.845	0.613	69.660
Offroad	Chainsaws	G	2	150	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	60.036	33.194	0.521	0.007	0.094	0.087	162	0.269	2.063	19.847
Offroad	Chainsaws Preempt	G	1	150	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	72.568	40.122	0.630	0.008	0.114	0.105	196	0.215	2.494	23.990
Offroad	Chippers/Stump Grinders	D	2	150	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	205.903	53.122	642.299	0.913	19.913	18.320	92999	0.000	4.793	4211.762
Offroad	Fellers/Bunchers	D	1	150	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	227.453	70.758	681.563	1.321	21.635	19.904	117377	0.000	6.384	5314.203
Offroad	Skidders	D	2	150	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1095.853	155.789	1234.752	2.145	68.599	63.111	190648	0.000	14.057	8690.642
Offroad	Trimmers/Edgers/Brush Cutters	G	2	150	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	22.013	6.685	0.191	0.002	0.035	0.032	60	0.105	0.416	6.195
Onroad	Worker Trips-Paved Roads	G	8	150	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	379.783	35.641	38.156	0.606	28.068	8.340	55727	2.819	3.198	NA
Onroad	Worker Trips-Unpaved Roads	G	8	150	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	81.135	10.702	6.033	0.034	632.228	63.352	3060	0.154	0.175	NA
Onroad	Log/Chip Haul Truck Trips-Paved	D	1	56	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	58.068	12.869	231.694	0.312	47.560	17.400	32372	0.298	0.800	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	56	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	2.733	0.597	6.596	0.007	99.924	10.122	762	0.007	0.019	NA
Totals For Cutting/Skidding/Chipping/Trimming					**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**2608.184**	**430.448**	**2850.495**	**5.375**	**923.786**	**205.941**	**494032**	**4.712**	**35.010**	**18336.300**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 85.10

UCB - Frowning Ridge (Oakland)

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: 1 year (1st year of action)																								
Offroad	Dozers (Crawler Tractors)	D	1	2	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	3.198	0.852	5.061	0.005	0.446	0.410	433	0.000	0.077	19.895
Offroad	Loaders, Rubber Tired	D	1	2	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	2.547	0.595	3.690	0.004	0.322	0.296	361	0.000	0.054	16.562
Onroad	Dump Truck Trips-Paved Roads	D	1	2	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	0.809	0.179	4.409	0.006	0.867	0.296	621	0.006	0.015	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	2	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.439	0.097	2.268	0.003	0.434	0.149	317	0.003	0.008	NA
Onroad	Water Truck-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4	2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Dust	Treated Area (acres) --> (acres)		0.06	2	NA	NA	NA	NA	0.600	0.060	NA	NA	NA	NA	NA	NA	NA	NA	1.200	0.120	NA	NA	NA	NA
Totals For Access Road Construction					**5.120**	**1.035**	**8.096**	**0.012**	**7.404**	**1.235**	**1089**	**0.014**	**0.089**	**18.229**	**10.240**	**2.070**	**16.192**	**0.023**	**14.807**	**2.470**	**2178**	**0.029**	**0.178**	**36.458**

Activity	Treated Area (acres) --> 85.10 Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	1	300	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	805.279	21.941	16.121	0.038	11.233	10.334	1340	1.690	1.226	139.320
Offroad	Chainsaws	G	2	300	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	120.072	66.387	1.042	0.013	0.189	0.174	325	0.538	4.126	39.695
Offroad	Chainsaws Preempt	G	1	300	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	145.136	80.245	1.260	0.016	0.228	0.210	392	0.431	4.988	47.980
Offroad	Chippers/Stump Grinders	D	2	300	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	411.806	106.244	1284.598	1.826	39.827	36.641	185997	0.000	9.586	8423.525
Offroad	Fellers/Bunchers	D	1	300	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	454.906	141.515	1363.126	2.641	43.270	39.808	234753	0.000	12.769	10628.406
Offroad	Skidders	D	2	300	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	2191.706	311.577	2469.503	4.290	137.199	126.223	381295	0.000	28.113	17381.285
Offroad	Trimmers/Edgers/Brush Cutters	G	2	300	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	44.027	13.370	0.382	0.005	0.069	0.064	119	0.210	0.831	12.389
Onroad	Worker Trips-Paved Roads	G	8	300	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	759.567	71.281	76.311	1.213	56.136	16.680	111454	5.638	6.395	NA
Onroad	Worker Trips-Unpaved Roads	G	8	300	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	162.269	21.403	12.066	0.068	1264.456	126.704	6120	0.308	0.349	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	85	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	88.138	19.533	351.678	0.474	72.189	26.411	49136	0.452	1.214	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	85	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	4.149	0.906	10.012	0.011	151.670	15.364	1157	0.011	0.029	NA
Totals For Cutting/Skidding/Chipping/Trimming					**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**5187.054**	**854.403**	**5586.100**	**10.596**	**1776.465**	**398.612**	**972089**	**9.278**	**69.626**	**36672.599**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 41.57

Oakland - North Hills Skyline

			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Access Road Construction: (none)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

	Treated Area (acres) -->	41.57	**No. of Units**	**Total**	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	1	140	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	375.797	10.239	7.523	0.018	5.242	4.823	625	0.789	0.572	65.016
Offroad	Chainsaws	G	2	140	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	56.034	30.981	0.486	0.006	0.088	0.081	151	0.251	1.926	18.524
Offroad	Chainsaws Preempt	G	1	140	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	67.730	37.448	0.588	0.008	0.107	0.098	183	0.201	2.328	22.391
Offroad	Chippers/Stump Grinders	D	2	140	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	192.176	49.580	599.479	0.852	18.586	17.099	86799	0.000	4.474	3930.978
Offroad	Fellers/Bunchers	D	1	140	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	212.290	66.040	636.125	1.233	20.192	18.577	109551	0.000	5.959	4959.923
Offroad	Skidders	D	2	140	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1022.796	145.403	1152.435	2.002	64.026	58.904	177938	0.000	13.119	8111.266
Offroad	Trimmers/Edgers/Brush Cutters	G	2	140	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	20.546	6.239	0.178	0.002	0.032	0.030	56	0.098	0.388	5.782
Onroad	Worker Trips-Paved Roads	G	8	140	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	354.464	33.265	35.612	0.566	26.197	7.784	52012	2.631	2.984	NA
Onroad	Worker Trips-Unpaved Roads	G	8	140	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	75.726	9.988	5.631	0.032	590.080	59.128	2856	0.144	0.163	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	42	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	43.551	9.652	173.770	0.234	35.670	13.050	24279	0.224	0.600	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	42	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	2.050	0.448	4.947	0.006	74.943	7.591	572	0.005	0.014	NA
Totals For Cutting/Skidding/Chipping/Trimming					**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**2423.159**	**399.283**	**2616.775**	**4.958**	**835.162**	**187.166**	**455022**	**4.342**	**32.526**	**17113.880**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 35.54

Oakland - Caldecott Tunnel

					Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**No. of Units or No. of Trips**	**Total No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Access Road Construction: (none)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

	Treated Area (acres) -->	35.54	**No. of Units**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: 3 years (1st, 2nd & 3rd year of action)																								
Offroad	Air Compressors	G	1	110	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	295.269	8.045	5.911	0.014	4.119	3.789	491	0.620	0.450	51.084
Offroad	Chainsaws	G	2	110	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	44.026	24.342	0.382	0.005	0.069	0.064	119	0.197	1.513	14.555
Offroad	Chainsaws Preempt	G	1	110	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	53.216	29.423	0.462	0.006	0.084	0.077	144	0.158	1.829	17.593
Offroad	Chippers/Stump Grinders	D	2	110	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	150.995	38.956	471.019	0.669	14.603	13.435	68199	0.000	3.515	3088.626
Offroad	Fellers/Bunchers	D	1	110	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	166.799	51.889	499.813	0.969	15.866	14.596	86076	0.000	4.682	3897.082
Offroad	Skidders	D	2	110	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	803.626	114.245	905.484	1.573	50.306	46.282	139808	0.000	10.308	6373.138
Offroad	Trimmers/Edgers/Brush Cutters	G	2	110	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	16.143	4.902	0.140	0.002	0.025	0.023	44	0.077	0.305	4.543
Onroad	Worker Trips-Paved Roads	G	8	110	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	278.508	26.136	27.981	0.445	20.583	6.116	40866	2.067	2.345	NA
Onroad	Worker Trips-Unpaved Roads	G	8	110	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	59.499	7.848	4.424	0.025	463.634	46.458	2244	0.113	0.128	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	36	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	37.329	8.273	148.946	0.201	30.574	11.186	20811	0.192	0.514	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	36	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	1.757	0.384	4.240	0.005	64.237	6.507	490	0.005	0.012	NA
Totals For Cutting/Skidding/Chipping/Trimming					**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**1907.168**	**314.443**	**2068.803**	**3.913**	**664.100**	**148.533**	**359292**	**3.428**	**25.600**	**13446.620**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 102.37

EBRPD - Anthony Chabot Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	8	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	12.793	3.406	20.244	0.020	1.784	1.641	1733	0.000	0.31	79.58
Offroad	Loaders, Rubber Tired	D	1	8	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	10.187	2.382	14.760	0.017	1.288	1.185	1445	0.000	0.21	66.25
Onroad	Dump Truck Trips-Paved Roads	D	1	8	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	3.236	0.714	17.635	0.024	3.469	1.184	2486	0.023	0.06	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	8	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.349	0.077	0.939	0.001	14.271	1.443	108	0.001	0.00	NA
Onroad	Water Truck-Paved Roads	D	1	8	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	1.755	0.388	9.073	0.012	1.738	0.595	1266	0.012	0.03	NA
Onroad	Water Truck-Unpaved Roads	D	1	8	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.349	0.077	0.939	0.001	14.271	1.443	108	0.001	0.00	NA
Onroad	Worker Trips-Paved Roads	G	4	8	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	10.128	0.950	1.017	0.016	0.748	0.222	1486	0.075	0.09	NA
Onroad	Worker Trips-Unpaved Roads	G	4	8	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.164	0.285	0.161	0.001	16.859	1.689	82	0.004	0.00	NA
Dust	Treated Area (acres) --> (acres)		0.25	8	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	20.000	2.000	NA	NA	NA	NA
Totals For Access Road Construction (AC003, 006, 007, 010, 011, 012, 013, & 014)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**40.960**	**8.280**	**64.768**	**0.093**	**74.429**	**11.402**	**8714**	**0.116**	**0.71**	**145.83**

AC001	**Treated Area (acres) -->**	1.21	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		6	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	16.106	0.439	0.322	0.001	0.225	0.207	27	0.034	0.02	2.79
Offroad	Chainsaws	G	2		6	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.08	0.79
Offroad	Chainsaws Preempt	G	1		6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.10	0.96
Offroad	Chippers/Stump Grinders-Trailer	G	1		6	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	249.519	6.743	4.316	0.010	3.236	2.977	386	0.257	0.37	41.64
Offroad	Trimmers/Edgers/Brush Cutters	G	2		6	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.02	0.25
Onroad	Worker Trips-Paved Roads	G	4		6	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.06	NA
Onroad	Worker Trips-Unpaved Roads	G	4		6	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.00	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Oak/Bay	acres->	0.14	100%	1	106.718	15.348	9.233	NA	11.511	11.271	NA	0.552	5.348	NA	106.718	15.348	9.233	NA	11.511	11.271	NA	0.552	5.35	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	1.07	100%	1	518.360	82.034	47.556	NA	60.634	58.256	NA	NA	26.631	NA	518.360	82.034	47.556	NA	60.634	58.256	NA	NA	26.63	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.00	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**671.916**	**99.267**	**57.718**	**0.004**	**74.924**	**70.298**	**268**	**0.614**	**32.090**	**7.738**	**906.106**	**108.691**	**62.364**	**0.024**	**88.821**	**74.154**	**1605**	**0.926**	**32.64**	**46.43**

AC002	**Treated Area (acres) -->**	1.89	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		9	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	24.158	0.658	0.484	0.001	0.337	0.310	40	0.051	0.04	4.18
Offroad	Chainsaws	G	2		9	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	3.602	1.992	0.031	0.000	0.006	0.005	10	0.016	0.12	1.19
Offroad	Chainsaws Preempt	G	1		9	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.354	2.407	0.038	0.000	0.007	0.006	12	0.013	0.15	1.44
Offroad	Chippers/Stump Grinders-Trailer	G	1		9	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	374.278	10.114	6.473	0.015	4.853	4.465	579	0.386	0.56	62.46
Offroad	Trimmers/Edgers/Brush Cutters	G	2		9	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.321	0.401	0.011	0.000	0.002	0.002	4	0.006	0.02	0.37
Onroad	Worker Trips-Paved Roads	G	4		9	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	11.393	1.069	1.145	0.018	0.842	0.250	1672	0.085	0.10	NA
Onroad	Worker Trips-Unpaved Roads	G	4		9	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.434	0.321	0.181	0.001	18.967	1.901	92	0.005	0.01	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	100%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.03	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	100%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**423.713**	**17.444**	**16.873**	**0.047**	**30.281**	**7.922**	**3591**	**0.572**	**1.02**	**69.65**

AC003	**Treated Area (acres) -->**	2.31	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.05	5.57
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.17	1.59
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.20	1.92
Offroad	Chippers/Stump Grinders-Trailer	G	1		12	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	499.038	13.486	8.631	0.020	6.471	5.953	772	0.515	0.75	83.29
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.03	0.50
Onroad	Worker Trips-Paved Roads	G	4		12	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	15.191	1.426	1.526	0.024	1.123	0.334	2229	0.113	0.13	NA
Onroad	Worker Trips-Unpaved Roads	G	4		12	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.245	0.428	0.241	0.001	25.289	2.534	122	0.006	0.01	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.159	0.023	0.014	NA	0.017	0.017	NA	0.001	0.008	NA	0.159	0.023	0.014	NA	0.017	0.017	NA	0.001	0.01	NA
Burn	Oak/Bay	acres->	0.08	50%	1	29.759	4.280	2.575	NA	3.210	3.143	NA	0.154	1.491	NA	29.759	4.280	2.575	NA	3.210	3.143	NA	0.154	1.49	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	2.24	50%	1	543.447	86.004	49.857	NA	63.568	61.075	NA	NA	27.920	NA	543.447	86.004	49.857	NA	63.568	61.075	NA	NA	27.92	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.01	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**621.289**	**92.432**	**57.630**	**0.010**	**72.208**	**65.498**	**859**	**0.222**	**29.545**	**7.738**	**1136.506**	**113.165**	**67.852**	**0.054**	**102.781**	**73.979**	**3802**	**0.908**	**30.76**	**92.86**

AC006	Treated Area (acres) -->	8.45	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		42	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	112.739	3.072	2.257	0.005	1.573	1.447	188	0.237	0.17	19.50
Offroad	Chainsaws	G	2		42	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	16.810	9.294	0.146	0.002	0.026	0.024	45	0.075	0.58	5.56
Offroad	Chainsaws Preempt	G	1		42	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	20.319	11.234	0.176	0.002	0.032	0.029	55	0.060	0.70	6.72
Offroad	Chippers/Stump Grinders	D	1		42	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	28.826	7.437	89.922	0.128	2.788	2.565	13020	0.000	0.67	589.65
Offroad	Chippers/Stump Grinders-Trailer	G	1		42	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	1746.631	47.200	30.209	0.068	22.649	20.837	2702	1.801	2.61	291.50
Offroad	Fellers/Bunchers	D	1		42	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	63.687	19.812	190.838	0.370	6.058	5.573	32865	0.000	1.79	1487.98
Offroad	Skidders	D	2		42	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	306.839	43.621	345.730	0.601	19.208	17.671	53381	0.000	3.94	2433.38
Offroad	Trimmers/Edgers/Brush Cutters	G	2		42	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	6.164	1.872	0.054	0.001	0.010	0.009	17	0.029	0.12	1.73
Onroad	Worker Trips-Paved Roads	G	8		42	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	106.339	9.979	10.684	0.170	7.859	2.335	15604	0.789	0.90	NA
Onroad	Worker Trips-Unpaved Roads	G	8		42	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	22.718	2.996	1.689	0.010	177.024	17.738	857	0.043	0.05	NA
Burn	Eucalyptus/Acacia	acres->	0.16	75%	6	46.240	6.650	4.001	NA	4.988	4.884	NA	0.239	2.317	NA	277.442	39.902	24.003	NA	29.926	29.303	NA	1.434	13.90	NA
Burn	Oak/Bay	acres->	0.63	75%	6	60.245	8.664	5.212	NA	6.498	6.363	NA	0.311	3.019	NA	361.469	51.987	31.273	NA	38.990	38.178	NA	1.868	18.11	NA
Burn	Pine	acres->	0.18	75%	6	43.816	3.623	3.321	NA	4.226	4.226	NA	0.198	1.889	NA	262.897	21.736	19.924	NA	25.358	25.358	NA	1.190	11.33	NA
Burn	Scrub	acres->	7.48	75%	6	454.480	71.925	41.695	NA	53.162	51.077	NA	NA	23.349	NA	2726.879	431.547	250.172	NA	318.970	306.461	NA	NA	140.10	NA
Burn	Grass	acres->	0.00	75%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	25%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.03	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	25%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**663.750**	**94.829**	**74.477**	**0.038**	**77.156**	**68.666**	**3419**	**0.826**	**30.863**	**115.143**	**6061.931**	**702.170**	**1005.588**	**1.368**	**655.737**	**468.512**	**119917**	**7.539**	**194.99**	**4836.02**

AC007	Treated Area (acres) -->	1.44	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.03	3.25
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.10	0.93
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.12	1.12
Offroad	Chippers/Stump Grinders-Trailer	G	1		7	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	291.105	7.867	5.035	0.011	3.775	3.473	450	0.300	0.44	48.58
Offroad	Loaders, Skid Steer	D	1		7	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	4.230	0.966	4.260	0.006	0.293	0.270	477	0.000	0.09	21.96
Offroad	Mowers, Rear Engine Riding	G	1		7	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	14.071	0.225	0.161	0.001	0.011	0.010	24	0.023	0.01	2.41
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.02	0.29
Onroad	Worker Trips-Paved Roads	G	4		7	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	8.862	0.832	0.890	0.014	0.655	0.195	1300	0.066	0.07	NA
Onroad	Worker Trips-Unpaved Roads	G	4		7	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.893	0.250	0.141	0.001	14.752	1.478	71	0.004	0.00	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Oak/Bay	acres->	0.14	50%	1	55.469	7.978	4.799	NA	5.983	5.858	NA	0.287	2.780	NA	55.469	7.978	4.799	NA	5.983	5.858	NA	0.287	2.78	NA
Burn	Pine	acres->	0.52	50%	1	510.936	42.243	38.723	NA	49.283	49.283	NA	2.313	22.027	NA	510.936	42.243	38.723	NA	49.283	49.283	NA	2.313	22.03	NA
Burn	Scrub	acres->	0.77	50%	1	187.076	29.606	17.163	NA	21.883	21.025	NA	NA	9.611	NA	187.076	29.606	17.163	NA	21.883	21.025	NA	NA	9.61	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.01	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**804.019**	**82.122**	**66.500**	**0.011**	**82.606**	**77.469**	**931**	**2.671**	**34.557**	**11.220**	**1100.733**	**94.452**	**75.865**	**0.041**	**99.542**	**82.335**	**2965**	**3.065**	**35.31**	**78.54**

AC011	Treated Area (acres) -->	13.97	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		70	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	187.898	5.120	3.761	0.009	2.621	2.411	313	0.394	0.29	32.51
Offroad	Chainsaws	G	2		70	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	28.017	15.490	0.243	0.003	0.044	0.041	76	0.126	0.96	9.26
Offroad	Chainsaws Preempt	G	1		70	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	33.865	18.724	0.294	0.004	0.053	0.049	92	0.101	1.16	11.20
Offroad	Chippers/Stump Grinders	D	2		70	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	96.088	24.790	299.739	0.426	9.293	8.550	43399	0.000	2.24	1965.49
Offroad	Fellers/Bunchers	D	1		70	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	106.145	33.020	318.063	0.616	10.096	9.289	54776	0.000	2.98	2479.96
Offroad	Loaders, Skid Steer	D	1		70	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	42.297	9.664	42.598	0.062	2.934	2.699	4770	0.000	0.87	219.60
Offroad	Mowers, Rear Engine Riding	G	1		70	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	140.710	2.250	1.610	0.007	0.109	0.101	236	0.235	0.13	24.12
Offroad	Skidders	D	2		70	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	511.398	72.701	576.217	1.001	32.013	29.452	88969	0.000	6.56	4055.63
Offroad	Trimmers/Edgers/Brush Cutters	G	2		70	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	10.273	3.120	0.089	0.001	0.016	0.015	28	0.049	0.19	2.89
Onroad	Worker Trips-Paved Roads	G	8		70	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	177.232	16.632	17.806	0.283	13.098	3.892	26006	1.316	1.49	NA
Onroad	Worker Trips-Unpaved Roads	G	8		70	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	37.863	4.994	2.815	0.016	295.040	29.564	1428	0.072	0.08	NA
Burn	Eucalyptus/Acacia	acres->	4.47	67%	9	744.313	107.047	64.396	NA	80.285	78.613	NA	3.847	37.299	NA	6946.918	999.107	601.025	NA	749.330	733.719	NA	35.905	348.13	NA
Burn	Oak/Bay	acres->	0.07	67%	9	3.841	0.552	0.332	NA	0.414	0.406	NA	0.020	0.192	NA	35.848	5.156	3.101	NA	3.867	3.786	NA	0.185	1.80	NA
Burn	Pine	acres->	0.00	67%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	9.43	67%	9	327.122	51.769	30.011	NA	38.264	36.764	NA	NA	16.806	NA	3053.139	483.180	280.104	NA	357.133	343.128	NA	NA	156.86	NA
Burn	Grass	acres->	0.00	67%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	33%	5	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	4.839	1.072	19.308	0.026	3.963	1.450	2698	0.025	0.07	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	33%	5	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.228	0.050	0.550	0.001	8.327	0.843	64	0.001	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1095.958**	**162.559**	**117.040**	**0.040**	**126.816**	**117.503**	**3736**	**3.905**	**54.555**	**125.724**	**11412.757**	**1695.072**	**2167.326**	**2.454**	**1487.939**	**1168.989**	**222853**	**38.408**	**523.80**	**8800.66**

AC012	Treated Area (acres) -->	10.12	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		51	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	136.897	3.730	2.741	0.006	1.910	1.757	228	0.287	0.21	23.68
Offroad	Chainsaws	G	2		51	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	20.412	11.286	0.177	0.002	0.032	0.030	55	0.091	0.70	6.75
Offroad	Chainsaws Preempt	G	1		51	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	24.673	13.642	0.214	0.003	0.039	0.036	67	0.073	0.85	8.16
Offroad	Chippers/Stump Grinders	D	2		51	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	70.007	18.061	218.382	0.310	6.771	6.229	31620	0.000	1.63	1432.00
Offroad	Fellers/Bunchers	D	1		51	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	77.334	24.058	231.731	0.449	7.356	6.767	39908	0.000	2.17	1806.83
Offroad	Loaders, Skid Steer	D	1		51	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	30.816	7.041	31.036	0.045	2.138	1.967	3476	0.000	0.64	159.99
Offroad	Mowers, Rear Engine Riding	G	1		51	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	102.518	1.640	1.173	0.005	0.080	0.073	172	0.171	0.09	17.57
Offroad	Skidders	D	2		51	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	372.590	52.968	419.816	0.729	23.324	21.458	64820	0.000	4.78	2954.82
Offroad	Trimmers/Edgers/Brush Cutters	G	2		51	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	7.485	2.273	0.065	0.001	0.012	0.011	20	0.036	0.14	2.11
Onroad	Worker Trips-Paved Roads	G	8		51	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	129.126	12.118	12.973	0.206	9.543	2.836	18947	0.958	1.09	NA
Onroad	Worker Trips-Unpaved Roads	G	8		51	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	27.586	3.639	2.051	0.012	214.958	21.540	1040	0.052	0.06	NA
Burn	Eucalyptus/Acacia	acres->	3.52	67%	7	820.663	118.028	71.001	NA	88.521	86.677	NA	4.242	41.125	NA	5471.088	786.853	473.341	NA	590.140	577.845	NA	28.278	274.17	NA
Burn	Oak/Bay	acres->	0.00	67%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	67%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	6.60	67%	7	320.582	50.734	29.411	NA	37.499	36.029	NA	NA	16.470	NA	2137.214	338.229	196.075	NA	249.995	240.192	NA	NA	109.80	NA
Burn	Grass	acres->	0.00	67%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	33%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.456	0.766	13.791	0.019	2.831	1.036	1927	0.018	0.05	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	33%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.163	0.036	0.393	0.000	5.948	0.602	45	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1161.928**	**171.953**	**122.714**	**0.040**	**133.873**	**124.426**	**3736**	**4.280**	**57.852**	**125.724**	**8611.366**	**1276.338**	**1603.958**	**1.788**	**1115.074**	**882.377**	**162325**	**29.965**	**396.37**	**6411.91**

AC013	Treated Area (acres) -->	4.35	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		22	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	59.054	1.609	1.182	0.003	0.824	0.758	98	0.124	0.09	10.22
Offroad	Chainsaws	G	2		22	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	8.805	4.868	0.076	0.001	0.014	0.013	24	0.039	0.30	2.91
Offroad	Chainsaws Preempt	G	1		22	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	10.643	5.885	0.092	0.001	0.017	0.015	29	0.032	0.37	3.52
Offroad	Chippers/Stump Grinders	D	2		22	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	30.199	7.791	94.204	0.134	2.921	2.687	13640	0.000	0.70	617.73
Offroad	Fellers/Bunchers	D	1		22	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	33.360	10.378	99.963	0.194	3.173	2.919	17215	0.000	0.94	779.42
Offroad	Loaders, Skid Steer	D	1		22	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	13.293	3.037	13.388	0.019	0.922	0.848	1499	0.000	0.27	69.02
Offroad	Mowers, Rear Engine Riding	G	1		22	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	44.223	0.707	0.506	0.002	0.034	0.032	74	0.074	0.04	7.58
Offroad	Skidders	D	2		22	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	160.725	22.849	181.097	0.315	10.061	9.256	27962	0.000	2.06	1274.63
Offroad	Trimmers/Edgers/Brush Cutters	G	2		22	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.229	0.980	0.028	0.000	0.005	0.005	9	0.015	0.06	0.91
Onroad	Worker Trips-Paved Roads	G	8		22	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	55.702	5.227	5.596	0.089	4.117	1.223	8173	0.413	0.47	NA
Onroad	Worker Trips-Unpaved Roads	G	8		22	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	11.900	1.570	0.885	0.005	92.727	9.292	449	0.023	0.03	NA
Burn	Eucalyptus/Acacia	acres->	0.03	50%	2	16.493	2.372	1.427	NA	1.779	1.742	NA	0.085	0.826	NA	32.985	4.744	2.854	NA	3.558	3.484	NA	0.170	1.65	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	4.32	50%	2	525.071	83.096	48.172	NA	61.419	59.010	NA	NA	26.976	NA	1050.142	166.192	96.343	NA	122.838	118.021	NA	NA	53.95	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.03	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**562.246**	**88.659**	**71.900**	**0.040**	**71.050**	**62.473**	**3736**	**0.123**	**28.059**	**125.724**	**1516.431**	**236.319**	**504.725**	**0.774**	**246.477**	**149.535**	**70355**	**0.902**	**60.96**	**2765.92**

AC014	Treated Area (acres) -->	58.63	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		293	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	786.489	21.429	15.744	0.037	10.971	10.093	1309	1.650	1.20	136.07
Offroad	Chainsaws	G	2		293	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	117.270	64.838	1.018	0.013	0.185	0.170	317	0.526	4.03	38.77
Offroad	Chainsaws Preempt	G	1		293	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	141.749	78.372	1.231	0.016	0.223	0.205	383	0.421	4.87	46.86
Offroad	Chippers/Stump Grinders	D	2		293	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	402.197	103.765	1254.624	1.783	38.898	35.786	181657	0.000	9.36	8226.98
Offroad	Fellers/Bunchers	D	1		293	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	444.292	138.213	1331.319	2.580	42.260	38.879	229275	0.000	12.47	10380.41
Offroad	Loaders, Skid Steer	D	1		293	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	177.043	40.452	178.303	0.258	12.280	11.298	19968	0.000	3.65	919.18
Offroad	Mowers, Rear Engine Riding	G	1		293	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	588.974	9.419	6.740	0.028	0.458	0.421	987	0.983	0.53	100.97
Offroad	Skidders	D	2		293	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	2140.566	304.307	2411.881	4.190	133.997	123.278	372399	0.000	27.46	16975.72
Offroad	Trimmers/Edgers/Brush Cutters	G	2		293	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	43.000	13.058	0.373	0.005	0.068	0.062	116	0.205	0.81	12.10
Onroad	Worker Trips-Paved Roads	G	8		293	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	741.843	69.618	74.531	1.185	54.826	16.290	108853	5.506	6.25	NA
Onroad	Worker Trips-Unpaved Roads	G	8		293	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	158.483	20.904	11.785	0.067	1234.952	123.747	5977	0.301	0.34	NA
Burn	Eucalyptus/Acacia	acres->	0.01	50%	30	0.413	0.059	0.036	NA	0.045	0.044	NA	0.002	0.021	NA	12.176	1.751	1.053	NA	1.313	1.286	NA	0.063	0.61	NA
Burn	Oak/Bay	acres->	0.55	50%	30	7.150	1.028	0.619	NA	0.771	0.755	NA	0.037	0.358	NA	210.918	30.334	18.248	NA	22.751	22.277	NA	1.090	10.57	NA
Burn	Pine	acres->	0.00	50%	30	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	58.07	50%	30	478.210	75.680	43.872	NA	55.937	53.744	NA	NA	24.569	NA	14107.186	2232.559	1294.237	NA	1650.152	1585.441	NA	NA	724.77	NA
Burn	Grass	acres->	0.00	50%	30	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	30	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	30.589	6.779	122.053	0.164	25.054	9.166	17053	0.157	0.42	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	30	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	1.440	0.314	3.475	0.004	52.638	5.332	402	0.004	0.01	NA
Totals For Cutting/Skidding/Chipping/Trimming						**506.455**	**79.958**	**66.828**	**0.040**	**64.606**	**56.263**	**3736**	**0.077**	**25.204**	**125.724**	**20104.215**	**3136.115**	**6726.615**	**10.330**	**3281.026**	**1983.732**	**938697**	**10.906**	**807.35**	**36837.05**

Offroad Source: CARB OFFROAD 2007 1534824
Onroad Source: CARB EMFAC 2011 696.180924
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 207.05

EBRPD - Anthony Chabot Regional Park

AC001	Treated Area (acres) -->	0.95	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.02	2.32
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.07	0.66
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.08	0.80
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.31	34.70
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.01	0.21
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.05	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.00	NA
Burn	Eucalyptus/Acacia	acres->	0.66	100%	1	1530.127	220.063	132.382	NA	165.047	161.609	NA	7.909	76.678	NA	1530.127	220.063	132.382	NA	165.047	161.609	NA	7.909	76.68	NA
Burn	Oak/Bay	acres->	0.08	100%	1	61.197	8.801	5.295	NA	6.601	6.464	NA	0.316	3.067	NA	61.197	8.801	5.295	NA	6.601	6.464	NA	0.316	3.07	NA
Burn	Pine	acres->	0.05	100%	1	91.451	7.561	6.931	NA	8.821	8.821	NA	0.414	3.942	NA	91.451	7.561	6.931	NA	8.821	8.821	NA	0.414	3.94	NA
Burn	Scrub	acres->	0.17	100%	1	80.725	12.775	7.406	NA	9.443	9.072	NA	NA	4.147	NA	80.725	12.775	7.406	NA	9.443	9.072	NA	NA	4.15	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.00	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1810.338**	**251.086**	**152.942**	**0.004**	**192.691**	**186.737**	**268**	**8.701**	**87.945**	**7.738**	**1997.690**	**258.625**	**156.659**	**0.020**	**203.809**	**189.821**	**1338**	**8.951**	**88.39**	**38.69**

AC006	Treated Area (acres) -->	1.15	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		6	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	16.106	0.439	0.322	0.001	0.225	0.207	27	0.034	0.02	2.79
Offroad	Chainsaws	G	2		6	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.08	0.79
Offroad	Chainsaws Preempt	G	1		6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.10	0.96
Offroad	Chippers/Stump Grinders-Trailer	G	1		6	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	249.519	6.743	4.316	0.010	3.236	2.977	386	0.257	0.37	41.64
Offroad	Mowers, Rear Engine Riding	G	1		6	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	12.061	0.193	0.138	0.001	0.009	0.009	20	0.020	0.01	2.07
Offroad	Trimmers/Edgers/Brush Cutters	G	2		6	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.02	0.25
Onroad	Worker Trips-Paved Roads	G	4		6	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.06	NA
Onroad	Worker Trips-Unpaved Roads	G	4		6	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.00	NA
Burn	Eucalyptus/Acacia	acres->	0.06	75%	1	102.960	14.808	8.908	NA	11.106	10.874	NA	0.532	5.160	NA	102.960	14.808	8.908	NA	11.106	10.874	NA	0.532	5.16	NA
Burn	Oak/Bay	acres->	0.09	75%	1	48.965	7.042	4.236	NA	5.282	5.172	NA	0.253	2.454	NA	48.965	7.042	4.236	NA	5.282	5.172	NA	0.253	2.45	NA
Burn	Pine	acres->	0.85	75%	1	1246.284	103.039	94.453	NA	120.212	120.212	NA	5.643	53.728	NA	1246.284	103.039	94.453	NA	120.212	120.212	NA	5.643	53.73	NA
Burn	Scrub	acres->	0.16	75%	1	57.310	9.070	5.258	NA	6.704	6.441	NA	NA	2.944	NA	57.310	9.070	5.258	NA	6.704	6.441	NA	NA	2.94	NA
Burn	Grass	acres->	0.00	75%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.01	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1505.452**	**136.116**	**118.062**	**0.010**	**148.718**	**143.963**	**863**	**6.499**	**64.412**	**8.083**	**1749.692**	**145.701**	**122.823**	**0.030**	**162.622**	**147.825**	**2217**	**6.828**	**64.97**	**48.50**

AC007	Treated Area (acres) -->	19.85	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		99	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	265.742	7.241	5.320	0.013	3.707	3.410	442	0.558	0.40	45.98
Offroad	Chainsaws	G	2		99	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	39.624	21.908	0.344	0.004	0.062	0.057	107	0.178	1.36	13.10
Offroad	Chainsaws Preempt	G	1		99	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	47.895	26.481	0.416	0.005	0.075	0.069	129	0.142	1.65	15.83
Offroad	Chippers/Stump Grinders	D	2		99	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	135.896	35.060	423.917	0.602	13.143	12.091	61379	0.000	3.16	2779.76
Offroad	Fellers/Bunchers	D	1		99	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	150.119	46.700	449.831	0.872	14.279	13.137	77469	0.000	4.21	3507.37
Offroad	Loaders, Skid Steer	D	1		99	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	59.820	13.668	60.246	0.087	4.149	3.817	6747	0.000	1.23	310.58
Offroad	Mowers, Rear Engine Riding	G	1		99	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	199.005	3.183	2.277	0.010	0.155	0.142	334	0.332	0.18	34.12
Offroad	Skidders	D	2		99	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	723.263	102.820	814.936	1.416	45.276	41.654	125828	0.000	9.28	5735.82
Offroad	Trimmers/Edgers/Brush Cutters	G	2		99	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	14.529	4.412	0.126	0.002	0.023	0.021	39	0.069	0.27	4.09
Onroad	Worker Trips-Paved Roads	G	8		99	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	250.657	23.523	25.183	0.400	18.525	5.504	36780	1.861	2.11	NA
Onroad	Worker Trips-Unpaved Roads	G	8		99	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	53.549	7.063	3.982	0.023	417.271	41.812	2020	0.102	0.12	NA
Burn	Eucalyptus/Acacia	acres->	11.56	50%	10	1346.578	193.665	116.502	NA	145.249	142.223	NA	6.960	67.480	NA	13465.781	1936.652	1165.017	NA	1452.489	1422.229	NA	69.598	674.80	NA
Burn	Oak/Bay	acres->	0.22	50%	10	8.300	1.194	0.718	NA	0.895	0.877	NA	0.043	0.416	NA	82.997	11.937	7.181	NA	8.953	8.766	NA	0.429	4.16	NA
Burn	Pine	acres->	3.36	50%	10	327.277	27.058	24.803	NA	31.568	31.568	NA	1.482	14.109	NA	3272.765	270.583	248.034	NA	315.680	315.680	NA	14.818	141.09	NA
Burn	Scrub	acres->	4.71	50%	10	114.371	18.100	10.493	NA	13.378	12.854	NA	NA	5.876	NA	1143.713	181.000	104.928	NA	133.783	128.537	NA	NA	58.76	NA
Burn	Grass	acres->	0.00	50%	10	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	10	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	10.369	2.298	41.374	0.056	8.493	3.107	5781	0.053	0.14	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	10	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.488	0.107	1.178	0.001	17.843	1.807	136	0.001	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1817.208**	**243.208**	**174.817**	**0.040**	**198.943**	**189.242**	**3736**	**8.523**	**88.138**	**125.724**	**19916.211**	**2694.635**	**3354.290**	**3.490**	**2453.905**	**2001.842**	**317190**	**88.140**	**902.94**	**12446.65**

AC010	Treated Area (acres) -->	44.42	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		222	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	595.907	16.237	11.929	0.028	8.313	7.648	992	1.251	0.91	103.10
Offroad	Chainsaws	G	2		222	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	88.853	49.126	0.771	0.010	0.140	0.129	240	0.398	3.05	29.37
Offroad	Chainsaws Preempt	G	1		222	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	107.400	59.381	0.932	0.012	0.169	0.155	290	0.319	3.69	35.51
Offroad	Chippers/Stump Grinders	D	2		222	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	304.736	78.620	950.602	1.351	29.472	27.114	137638	0.000	7.09	6233.41
Offroad	Fellers/Bunchers	D	1		222	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	336.631	104.721	1008.713	1.955	32.019	29.458	173717	0.000	9.45	7865.02
Offroad	Loaders, Skid Steer	D	1		222	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	134.142	30.650	135.096	0.196	9.304	8.560	15129	0.000	2.77	696.44
Offroad	Mowers, Rear Engine Riding	G	1		222	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	446.253	7.137	5.107	0.021	0.347	0.319	748	0.745	0.40	76.50
Offroad	Skidders	D	2		222	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1621.862	230.567	1827.432	3.175	101.527	93.405	282159	0.000	20.80	12862.15
Offroad	Trimmers/Edgers/Brush Cutters	G	2		222	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	32.580	9.894	0.283	0.004	0.051	0.047	88	0.156	0.61	9.17
Onroad	Worker Trips-Paved Roads	G	8		222	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	562.079	52.748	56.470	0.897	41.540	12.343	82476	4.172	4.73	NA
Onroad	Worker Trips-Unpaved Roads	G	8		222	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	120.079	15.838	8.929	0.051	935.698	93.761	4529	0.228	0.26	NA
Burn	Eucalyptus/Acacia	acres->	44.39	50%	22	2350.238	338.012	203.335	NA	253.509	248.227	NA	12.147	117.776	NA	51705.226	7436.257	4473.373	NA	5577.193	5461.001	NA	267.240	2591.07	NA
Burn	Oak/Bay	acres->	0.02	50%	22	0.391	0.056	0.034	NA	0.042	0.041	NA	0.002	0.020	NA	8.597	1.236	0.744	NA	0.927	0.908	NA	0.044	0.43	NA
Burn	Pine	acres->	0.00	50%	22	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	0.00	50%	22	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.00	NA
Burn	Grass	acres->	0.00	50%	22	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	22	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	22.812	5.056	91.023	0.123	18.684	6.836	12718	0.117	0.31	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	22	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	1.074	0.234	2.591	0.003	39.256	3.976	300	0.003	0.01	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2371.311**	**341.258**	**225.670**	**0.040**	**261.403**	**249.990**	**3736**	**12.187**	**118.052**	**125.724**	**56088.231**	**8097.704**	**8573.997**	**7.825**	**6794.641**	**5745.660**	**711023**	**274.672**	**2645.59**	**27910.67**

AC011	Treated Area (acres) -->	42.98	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		215	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	577.117	15.725	11.553	0.027	8.050	7.406	960	1.211	0.88	99.85
Offroad	Chainsaws	G	2		215	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	86.052	47.577	0.747	0.010	0.135	0.125	233	0.386	2.96	28.45
Offroad	Chainsaws Preempt	G	1		215	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	104.014	57.509	0.903	0.012	0.164	0.151	281	0.309	3.57	34.39
Offroad	Chippers/Stump Grinders	D	2		215	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	295.128	76.141	920.628	1.308	28.543	26.259	133298	0.000	6.87	6036.86
Offroad	Fellers/Bunchers	D	1		215	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	326.016	101.419	976.907	1.893	31.010	28.529	168240	0.000	9.15	7617.02
Offroad	Loaders, Skid Steer	D	1		215	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	129.912	29.684	130.836	0.189	9.011	8.290	14652	0.000	2.68	674.48
Offroad	Mowers, Rear Engine Riding	G	1		215	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	432.182	6.912	4.946	0.021	0.336	0.309	725	0.721	0.39	74.09
Offroad	Skidders	D	2		215	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1570.723	223.297	1769.811	3.075	98.326	90.460	273262	0.000	20.15	12456.59
Offroad	Trimmers/Edgers/Brush Cutters	G	2		215	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	31.553	9.582	0.274	0.004	0.050	0.046	85	0.151	0.60	8.88
Onroad	Worker Trips-Paved Roads	G	8		215	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	544.356	51.085	54.690	0.869	40.231	11.954	79875	4.040	4.58	NA
Onroad	Worker Trips-Unpaved Roads	G	8		215	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	116.293	15.339	8.648	0.049	906.194	90.804	4386	0.221	0.25	NA
Burn	Eucalyptus/Acacia	acres->	42.98	67%	29	2328.060	334.822	201.416	NA	251.117	245.885	NA	12.033	116.665	NA	66737.727	9598.235	5773.938	NA	7198.676	7048.704	NA	344.937	3344.38	NA
Burn	Oak/Bay	acres->	0.00	67%	29	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	67%	29	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	0.00	67%	29	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.00	NA
Burn	Grass	acres->	0.00	67%	29	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	33%	14	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	14.863	3.294	59.303	0.080	12.173	4.454	8286	0.076	0.20	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	33%	14	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.700	0.153	1.688	0.002	25.576	2.591	195	0.002	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2348.743**	**338.013**	**223.718**	**0.040**	**258.969**	**247.606**	**3736**	**12.071**	**116.921**	**125.724**	**70966.633**	**10235.951**	**9714.871**	**7.538**	**8358.474**	**7320.081**	**684478**	**352.053**	**3396.67**	**27030.60**

AC012	Treated Area (acres) -->	4.73	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		24	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	64.422	1.755	1.290	0.003	0.899	0.827	107	0.135	0.10	11.15
Offroad	Chainsaws	G	2		24	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	9.606	5.311	0.083	0.001	0.015	0.014	26	0.043	0.33	3.18
Offroad	Chainsaws Preempt	G	1		24	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	11.611	6.420	0.101	0.001	0.018	0.017	31	0.034	0.40	3.84
Offroad	Chippers/Stump Grinders	D	2		24	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	32.944	8.500	102.768	0.146	3.186	2.931	14880	0.000	0.77	673.88
Offroad	Fellers/Bunchers	D	1		24	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	36.392	11.321	109.050	0.211	3.462	3.185	18780	0.000	1.02	850.27
Offroad	Loaders, Skid Steer	D	1		24	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	14.502	3.314	14.605	0.021	1.006	0.925	1636	0.000	0.30	75.29
Offroad	Mowers, Rear Engine Riding	G	1		24	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	48.244	0.772	0.552	0.002	0.038	0.035	81	0.081	0.04	8.27
Offroad	Skidders	D	2		24	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	175.336	24.926	197.560	0.343	10.976	10.098	30504	0.000	2.25	1390.50
Offroad	Trimmers/Edgers/Brush Cutters	G	2		24	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.522	1.070	0.031	0.000	0.006	0.005	10	0.017	0.07	0.99
Onroad	Worker Trips-Paved Roads	G	8		24	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	60.765	5.702	6.105	0.097	4.491	1.334	8916	0.451	0.51	NA
Onroad	Worker Trips-Unpaved Roads	G	8		24	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	12.982	1.712	0.965	0.005	101.156	10.136	490	0.025	0.03	NA
Burn	Eucalyptus/Acacia	acres->	4.73	67%	3	2205.532	317.200	190.816	NA	237.900	232.944	NA	11.399	110.524	NA	7351.775	1057.334	636.052	NA	793.000	776.480	NA	37.998	368.41	NA
Burn	Oak/Bay	acres->	0.00	67%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	67%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	0.00	67%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.00	NA
Burn	Grass	acres->	0.00	67%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	33%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.728	0.383	6.896	0.009	1.415	0.518	963	0.009	0.02	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	33%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.081	0.018	0.196	0.000	2.974	0.301	23	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2226.215**	**320.391**	**213.117**	**0.040**	**245.753**	**234.665**	**3736**	**11.438**	**110.781**	**125.724**	**7823.911**	**1128.537**	**1076.254**	**0.842**	**922.642**	**806.806**	**76446**	**38.793**	**374.25**	**3017.37**

AC013	Treated Area (acres) -->	92.57	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		463	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	1242.814	33.863	24.880	0.059	17.336	15.950	2068	2.608	1.89	215.02
Offroad	Chainsaws	G	2		463	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	185.311	102.458	1.609	0.021	0.292	0.268	501	0.831	6.37	61.26
Offroad	Chainsaws Preempt	G	1		463	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	223.993	123.844	1.945	0.025	0.352	0.324	605	0.665	7.70	74.05
Offroad	Chippers/Stump Grinders	D	2		463	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	635.554	163.970	1982.562	2.818	61.466	56.549	287056	0.000	14.79	13000.31
Offroad	Fellers/Bunchers	D	1		463	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	702.072	218.405	2103.757	4.077	66.779	61.437	362302	0.000	19.71	16403.17
Offroad	Loaders, Skid Steer	D	1		463	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	279.764	63.923	281.755	0.408	19.405	17.853	31553	0.000	5.77	1452.49
Offroad	Mowers, Rear Engine Riding	G	1		463	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	930.699	14.885	10.650	0.044	0.724	0.666	1560	1.553	0.84	159.55
Offroad	Skidders	D	2		463	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	3382.533	480.867	3811.266	6.621	211.743	194.804	588466	0.000	43.39	26825.12
Offroad	Trimmers/Edgers/Brush Cutters	G	2		463	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	67.948	20.634	0.590	0.008	0.107	0.098	184	0.324	1.28	19.12
Onroad	Worker Trips-Paved Roads	G	8		463	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	1172.264	110.011	117.774	1.872	86.636	25.742	172011	8.701	9.87	NA
Onroad	Worker Trips-Unpaved Roads	G	8		463	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	250.435	33.033	18.622	0.106	1951.477	195.546	9445	0.475	0.54	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	100%	93	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	96.434	21.372	384.777	0.518	78.983	28.897	53761	0.495	1.33	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	100%	93	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	4.539	0.991	10.954	0.012	165.945	16.810	1266	0.012	0.03	NA
Totals For Cutting/Skidding/Chipping/Trimming						**20.683**	**3.191**	**22.301**	**0.040**	**7.852**	**1.721**	**3736**	**0.038**	**0.257**	**125.724**	**9174.360**	**1388.255**	**8751.142**	**16.588**	**2661.246**	**614.944**	**1510778**	**15.664**	**113.50**	**58210.09**

AC014	Treated Area (acres) -->	0.41	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.01	0.93
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.03	0.26
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.03	0.32
Offroad	Chippers/Stump Grinders	D	1		2	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.03	28.08
Offroad	Fellers/Bunchers	D	1		2	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	3.033	0.943	9.088	0.018	0.288	0.265	1565	0.000	0.09	70.86
Offroad	Loaders, Skid Steer	D	1		2	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	1.208	0.276	1.217	0.002	0.084	0.077	136	0.000	0.02	6.27
Offroad	Skidders	D	1		2	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.09	57.94
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.01	0.08
Onroad	Worker Trips-Paved Roads	G	8		2	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.04	NA
Onroad	Worker Trips-Unpaved Roads	G	8		2	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.00	NA
Burn	Eucalyptus/Acacia	acres->	0.41	67%	1	629.175	90.488	54.434	NA	67.866	66.452	NA	3.252	31.529	NA	629.175	90.488	54.434	NA	67.866	66.452	NA	3.252	31.53	NA
Burn	Oak/Bay	acres->	0.00	67%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	67%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	0.00	67%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.00	NA
Burn	Grass	acres->	0.00	67%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	33%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.01	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	33%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**643.509**	**92.950**	**70.456**	**0.030**	**75.422**	**67.900**	**2787**	**3.287**	**31.722**	**82.371**	**656.756**	**95.172**	**82.222**	**0.054**	**80.344**	**68.857**	**4982**	**3.316**	**31.90**	**164.74**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION Treated Area (acres) --> 192.93

EBRPD - Anthony Chabot Regional Park

			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																									
Offroad	Dozers (Crawler Tractors)	D	1	4	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	6.396	1.703	10.122	0.010	0.892	0.821	867	0.000	0.15	39.79
Offroad	Loaders, Rubber Tired	D	1	4	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	5.093	1.191	7.380	0.008	0.644	0.593	723	0.000	0.11	33.12
Onroad	Dump Truck Trips-Paved Roads	D	1	4	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	1.618	0.357	8.818	0.012	1.735	0.592	1243	0.011	0.03	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.00	NA
Onroad	Water Truck-Paved Roads	D	1	4	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.878	0.194	4.537	0.006	0.869	0.297	633	0.006	0.02	NA
Onroad	Water Truck-Unpaved Roads	D	1	4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.00	NA
Onroad	Worker Trips-Paved Roads	G	4	4	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.04	NA
Onroad	Worker Trips-Unpaved Roads	G	4	4	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.00	NA
Dust	Treated Area (acres) --> (acres)		0.25	4	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	10.000	1.000	NA	NA	NA	NA
Totals For Access Road Construction (AC008a, 008b, 008c, & 009)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**20.480**	**4.140**	**32.384**	**0.046**	**37.215**	**5.701**	**4357**	**0.058**	**0.36**	**72.92**

AC004	Treated Area (acres) -->	9.89	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		49	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	131.529	3.584	2.633	0.006	1.835	1.688	219	0.276	0.20	22.76
Offroad	Chainsaws	G	2		49	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	19.612	10.843	0.170	0.002	0.031	0.028	53	0.088	0.67	6.48
Offroad	Chainsaws Preempt	G	1		49	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	23.705	13.107	0.206	0.003	0.037	0.034	64	0.070	0.81	7.84
Offroad	Chippers/Stump Grinders-Trailer	G	1		49	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	2037.737	55.066	35.244	0.080	26.424	24.310	3152	2.102	3.05	340.08
Offroad	Trimmers/Edgers/Brush Cutters	G	2		49	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	7.191	2.184	0.062	0.001	0.011	0.010	19	0.034	0.14	2.02
Onroad	Worker Trips-Paved Roads	G	4		49	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	62.031	5.821	6.232	0.099	4.584	1.362	9102	0.460	0.52	NA
Onroad	Worker Trips-Unpaved Roads	G	4		49	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	13.252	1.748	0.985	0.006	103.264	10.347	500	0.025	0.03	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	5	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Oak/Bay	acres->	0.45	50%	5	34.759	4.999	3.007	NA	3.749	3.671	NA	0.180	1.742	NA	173.796	24.995	15.036	NA	18.747	18.356	NA	0.898	8.71	NA
Burn	Pine	acres->	0.35	50%	5	68.263	5.644	5.174	NA	6.584	6.584	NA	0.309	2.943	NA	341.317	28.219	25.868	NA	32.922	32.922	NA	1.545	14.71	NA
Burn	Scrub	acres->	9.08	50%	5	441.232	69.828	40.480	NA	51.612	49.588	NA	NA	22.669	NA	2206.160	349.140	202.400	NA	258.060	247.940	NA	NA	113.34	NA
Burn	Grass	acres->	0.00	50%	5	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	5	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	5.185	1.149	20.687	0.028	4.246	1.554	2890	0.027	0.07	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	5	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.244	0.053	0.589	0.001	8.922	0.904	68	0.001	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**592.178**	**82.596**	**53.845**	**0.010**	**67.359**	**61.106**	**859**	**0.557**	**27.479**	**7.738**	**5021.759**	**495.910**	**310.112**	**0.225**	**459.083**	**339.456**	**16068**	**5.527**	**142.26**	**379.18**

AC008a	Treated Area (acres) -->	33.60	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		168	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	450.956	12.287	9.028	0.021	6.291	5.787	750	0.946	0.69	78.02
Offroad	Chainsaws	G	2		168	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	67.240	37.177	0.584	0.007	0.106	0.097	182	0.301	2.31	22.23
Offroad	Chainsaws Preempt	G	1		168	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	81.276	44.937	0.706	0.009	0.128	0.118	220	0.241	2.79	26.87
Offroad	Chippers/Stump Grinders	D	2		168	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	230.611	59.497	719.375	1.022	22.303	20.519	104158	0.000	5.37	4717.17
Offroad	Fellers/Bunchers	D	1		168	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	254.747	79.249	763.350	1.479	24.231	22.292	131462	0.000	7.15	5951.91
Offroad	Loaders, Skid Steer	D	1		168	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	101.513	23.195	102.235	0.148	7.041	6.478	11449	0.000	2.09	527.04
Offroad	Skidders	D	2		168	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1227.355	174.483	1382.922	2.403	76.831	70.685	213525	0.000	15.74	9733.52
Offroad	Trimmers/Edgers/Brush Cutters	G	2		168	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	24.655	7.487	0.214	0.003	0.039	0.036	67	0.118	0.47	6.94
Onroad	Worker Trips-Paved Roads	G	8		168	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	425.357	39.917	42.734	0.679	31.436	9.341	62414	3.157	3.58	NA
Onroad	Worker Trips-Unpaved Roads	G	8		168	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	90.871	11.986	6.757	0.038	708.095	70.954	3427	0.172	0.20	NA
Burn	Eucalyptus/Acacia	acres->	25.00	50%	17	1713.109	246.380	148.213	NA	184.785	180.935	NA	8.854	85.848	NA	29122.846	4188.454	2519.617	NA	3141.341	3075.896	NA	150.523	1459.41	NA
Burn	Oak/Bay	acres->	0.43	50%	17	9.617	1.383	0.832	NA	1.037	1.016	NA	0.050	0.482	NA	163.491	23.513	14.145	NA	17.635	17.268	NA	0.845	8.19	NA
Burn	Pine	acres->	0.00	50%	17	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	8.17	50%	17	116.774	18.480	10.713	NA	13.659	13.124	NA	NA	5.999	NA	1985.158	314.165	182.125	NA	232.209	223.103	NA	NA	101.99	NA
Burn	Grass	acres->	0.00	50%	17	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	17	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	17.628	3.907	70.336	0.095	14.438	5.282	9827	0.090	0.24	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	17	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.830	0.181	2.002	0.002	30.334	3.073	231	0.002	0.01	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1858.172**	**269.401**	**182.036**	**0.040**	**207.332**	**196.794**	**3732**	**8.939**	**92.584**	**125.379**	**34244.535**	**5020.435**	**5816.129**	**5.907**	**4312.457**	**3530.928**	**537713**	**156.396**	**1610.23**	**21063.69**

AC008b	Treated Area (acres) -->	34.28	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		171	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	459.009	12.507	9.189	0.022	6.403	5.891	764	0.963	0.70	79.41
Offroad	Chainsaws	G	2		171	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	68.441	37.841	0.594	0.008	0.108	0.099	185	0.307	2.35	22.63
Offroad	Chainsaws Preempt	G	1		171	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	82.727	45.739	0.718	0.009	0.130	0.120	224	0.246	2.84	27.35
Offroad	Chippers/Stump Grinders	D	2		171	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	234.729	60.559	732.221	1.041	22.701	20.885	106018	0.000	5.46	4801.41
Offroad	Fellers/Bunchers	D	1		171	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	259.297	80.664	776.982	1.506	24.664	22.691	133809	0.000	7.28	6058.19
Offroad	Loaders, Skid Steer	D	1		171	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	103.325	23.609	104.061	0.151	7.167	6.594	11654	0.000	2.13	536.45
Offroad	Skidders	D	2		171	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1249.272	177.599	1407.617	2.445	78.203	71.947	217338	0.000	16.02	9907.33
Offroad	Trimmers/Edgers/Brush Cutters	G	2		171	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	25.095	7.621	0.218	0.003	0.039	0.036	68	0.120	0.47	7.06
Onroad	Worker Trips-Paved Roads	G	8		171	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	432.953	40.630	43.497	0.691	31.997	9.507	63529	3.214	3.65	NA
Onroad	Worker Trips-Unpaved Roads	G	8		171	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	92.493	12.200	6.878	0.039	720.740	72.221	3489	0.175	0.20	NA
Burn	Eucalyptus/Acacia	acres->	12.71	50%	17	870.624	125.213	75.324	NA	93.910	91.954	NA	4.500	43.629	NA	14800.609	2128.627	1280.502	NA	1596.470	1563.210	NA	76.498	741.69	NA
Burn	Oak/Bay	acres->	0.01	50%	17	0.118	0.017	0.010	NA	0.013	0.013	NA	0.001	0.006	NA	2.012	0.289	0.174	NA	0.217	0.213	NA	0.010	0.10	NA
Burn	Pine	acres->	0.00	50%	17	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	21.56	50%	17	308.160	48.769	28.272	NA	36.046	34.633	NA	NA	15.832	NA	5238.727	829.065	480.617	NA	612.787	588.756	NA	NA	269.15	NA
Burn	Grass	acres->	0.00	50%	17	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	17	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	17.628	3.907	70.336	0.095	14.438	5.282	9827	0.090	0.24	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	17	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.830	0.181	2.002	0.002	30.334	3.073	231	0.002	0.01	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1197.575**	**177.157**	**125.884**	**0.040**	**137.820**	**128.318**	**3732**	**4.535**	**59.722**	**125.379**	**23067.148**	**3461.037**	**4915.605**	**6.011**	**3146.399**	**2370.524**	**547136**	**81.625**	**1052.30**	**21439.83**

AC008c	Treated Area (acres) -->	102.75	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		514	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	1379.712	37.593	27.620	0.065	19.246	17.706	2296	2.895	2.10	238.70
Offroad	Chainsaws	G	2		514	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	205.723	113.743	1.786	0.023	0.324	0.298	556	0.922	7.07	68.01
Offroad	Chainsaws Preempt	G	1		514	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	248.666	137.486	2.159	0.028	0.391	0.360	672	0.738	8.55	82.21
Offroad	Chippers/Stump Grinders	D	2		514	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	705.561	182.031	2200.944	3.128	68.237	62.778	318675	0.000	16.42	14432.31
Offroad	Fellers/Bunchers	D	1		514	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	779.406	242.463	2335.489	4.526	74.135	68.204	402210	0.000	21.88	18210.00
Offroad	Loaders, Skid Steer	D	1		514	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	310.580	70.964	312.790	0.453	21.543	19.819	35029	0.000	6.40	1612.49
Offroad	Skidders	D	2		514	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	3755.123	533.836	4231.082	7.351	235.067	216.262	653286	0.000	48.17	29779.93
Offroad	Trimmers/Edgers/Brush Cutters	G	2		514	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	75.433	22.907	0.655	0.008	0.119	0.109	204	0.360	1.42	21.23
Onroad	Worker Trips-Paved Roads	G	8		514	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	1301.391	122.128	130.747	2.078	96.179	28.578	190958	9.660	10.96	NA
Onroad	Worker Trips-Unpaved Roads	G	8		514	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	278.021	36.671	20.674	0.117	2166.435	217.085	10486	0.527	0.60	NA
Burn	Eucalyptus/Acacia	acres->	96.62	50%	52	2185.008	314.248	189.040	NA	235.686	230.776	NA	11.293	109.496	NA	112527.890	16183.786	9735.559	NA	12137.840	11884.968	NA	581.605	5639.04	NA
Burn	Oak/Bay	acres->	1.44	50%	52	10.678	1.536	0.924	NA	1.152	1.128	NA	0.055	0.535	NA	549.905	79.087	47.576	NA	59.316	58.080	NA	2.842	27.56	NA
Burn	Pine	acres->	0.00	50%	52	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	4.70	50%	52	22.175	3.509	2.034	NA	2.594	2.492	NA	NA	1.139	NA	1142.019	180.732	104.772	NA	133.585	128.346	NA	NA	58.67	NA
Burn	Grass	acres->	0.00	50%	52	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	52	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	53.401	11.835	213.076	0.287	43.738	16.002	29771	0.274	0.74	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	52	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	2.514	0.549	6.066	0.007	91.894	9.308	701	0.006	0.02	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2236.533**	**322.452**	**214.277**	**0.040**	**247.283**	**236.115**	**3732**	**11.383**	**111.425**	**125.379**	**123315.344**	**17955.812**	**19370.994**	**18.070**	**15148.048**	**12727.905**	**1644844**	**599.830**	**5849.59**	**64444.88**

AC009	Treated Area (acres) -->	12.41	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		62	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	166.424	4.535	3.332	0.008	2.322	2.136	277	0.349	0.25	28.79
Offroad	Chainsaws	G	2		62	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	24.815	13.720	0.215	0.003	0.039	0.036	67	0.111	0.85	8.20
Offroad	Chainsaws Preempt	G	1		62	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	29.995	16.584	0.260	0.003	0.047	0.043	81	0.089	1.03	9.92
Offroad	Chippers/Stump Grinders	D	2		62	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	85.107	21.957	265.483	0.377	8.231	7.572	38439	0.000	1.98	1740.86
Offroad	Fellers/Bunchers	D	1		62	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	94.014	29.247	281.713	0.546	8.942	8.227	48516	0.000	2.64	2196.54
Offroad	Loaders, Skid Steer	D	1		62	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	37.463	8.560	37.730	0.055	2.599	2.391	4225	0.000	0.77	194.50
Offroad	Skidders	D	2		62	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	452.953	64.393	510.364	0.887	28.354	26.086	78801	0.000	5.81	3592.13
Offroad	Trimmers/Edgers/Brush Cutters	G	2		62	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	9.099	2.763	0.079	0.001	0.014	0.013	25	0.043	0.17	2.56
Onroad	Worker Trips-Paved Roads	G	8		62	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	156.977	14.731	15.771	0.251	11.601	3.447	23034	1.165	1.32	NA
Onroad	Worker Trips-Unpaved Roads	G	8		62	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	33.536	4.423	2.494	0.014	261.321	26.185	1265	0.064	0.07	NA
Burn	Eucalyptus/Acacia	acres->	12.41	50%	6	2408.681	346.417	208.392	NA	259.813	254.400	NA	12.449	120.705	NA	14452.088	2078.503	1250.349	NA	1558.877	1526.400	NA	74.696	724.23	NA
Burn	Oak/Bay	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Pine	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.00	NA
Burn	Scrub	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.00	NA
Burn	Grass	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50%	6	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	6.222	1.379	24.824	0.033	5.096	1.864	3468	0.032	0.09	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved Ro	D	1	50%	6	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.293	0.064	0.707	0.001	10.706	1.084	82	0.001	0.00	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2427.354**	**349.575**	**230.670**	**0.040**	**267.664**	**256.120**	**3732**	**12.484**	**120.960**	**125.379**	**15548.984**	**2260.858**	**2393.321**	**2.178**	**1898.149**	**1605.486**	**198280**	**76.551**	**739.22**	**7773.51**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 13.40

EBRPD - Claremont Canyon Regional Preserve

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	4	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	6.396	1.703	10.122	0.010	0.892	0.821	867	0.000	0.154	39.791
Offroad	Loaders, Rubber Tired	D	1	4	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	5.093	1.191	7.380	0.008	0.644	0.593	723	0.000	0.107	33.125
Onroad	Dump Truck Trips-Paved Roads	D	1	4	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	1.618	0.357	8.818	0.012	1.735	0.592	1243	0.011	0.031	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	4	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.878	0.194	4.537	0.006	0.869	0.297	633	0.006	0.016	NA
Onroad	Water Truck-Unpaved Roads	D	1	4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	4	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	4	4	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Dust	Treated Area (acres) --> (acres)		0.25	4	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	10.000	1.000	NA	NA	NA	NA
Totals For Access Road Construction (CC001, 009, 010, & 011)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**20.480**	**4.140**	**32.384**	**0.046**	**37.215**	**5.701**	**4357**	**0.058**	**0.355**	**72.915**

CC001	**Treated Area (acres) -->**	1.34	No. of Units or No. of Trips	% Burned or % Removed	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Activity	Equipment Type	Fuel																							
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.029	3.251
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders	D	2		7	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	9.609	2.479	29.974	0.043	0.929	0.855	4340	0.000	0.224	196.549
Offroad	Fellers/Bunchers	D	1		7	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	10.614	3.302	31.806	0.062	1.010	0.929	5478	0.000	0.298	247.996
Offroad	Skidders	D	2		7	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	51.140	7.270	57.622	0.100	3.201	2.945	8897	0.000	0.656	405.563
Offroad	Loaders, Skid Steer	D	1		7	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	4.230	0.966	4.260	0.006	0.293	0.270	477	0.000	0.087	21.960
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	8		7	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	17.723	1.663	1.781	0.028	1.310	0.389	2601	0.132	0.149	NA
Onroad	Worker Trips-Unpaved Roads	G	8		7	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	3.786	0.499	0.282	0.002	29.504	2.956	143	0.007	0.008	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	1.34	100%	1	651.055	103.034	59.730	NA	76.155	73.169	NA	NA	33.449	NA	651.055	103.034	59.730	NA	76.155	73.169	NA	NA	33.449	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**668.642**	**105.952**	**77.753**	**0.035**	**81.373**	**74.397**	**3141**	**0.029**	**33.689**	**125.379**	**774.162**	**123.459**	**185.892**	**0.242**	**112.676**	**81.765**	**21986**	**0.206**	**35.131**	**877.654**

CC001-Sto	**Treated Area (acres) -->**	5.48	No. of Units or No. of Trips	% Burned or % Removed	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Activity	Equipment Type	Fuel																							
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		27	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	72.475	1.975	1.451	0.003	1.011	0.930	121	0.152	0.110	12.539
Offroad	Chainsaws	G	2		27	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	10.806	5.975	0.094	0.001	0.017	0.016	29	0.048	0.371	3.573
Offroad	Chainsaws Preempt	G	1		27	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	13.062	7.222	0.113	0.001	0.021	0.019	35	0.039	0.449	4.318
Offroad	Chippers/Stump Grinders	D	2		27	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	37.063	9.562	115.614	0.164	3.584	3.298	16740	0.000	0.863	758.117
Offroad	Fellers/Bunchers	D	1		27	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	40.942	12.736	122.681	0.238	3.894	3.583	21128	0.000	1.149	956.557
Offroad	Skidders	D	2		27	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	197.254	28.042	222.255	0.386	12.348	11.360	34317	0.000	2.530	1564.316
Offroad	Loaders, Skid Steer	D	1		27	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	16.315	3.728	16.431	0.024	1.132	1.041	1840	0.000	0.336	84.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		27	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.962	1.203	0.034	0.000	0.006	0.006	11	0.019	0.075	1.115
Onroad	Worker Trips-Paved Roads	G	8		27	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	68.361	6.415	6.868	0.109	5.052	1.501	10031	0.507	0.576	NA
Onroad	Worker Trips-Unpaved Roads	G	8		27	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	14.604	1.926	1.086	0.006	113.801	11.403	551	0.028	0.031	NA
Burn	Eucalyptus/Acacia	acres->	4.84	25%	1	2253.405	324.085	194.957	NA	243.064	238.000	NA	11.647	112.923	NA	2816.756	405.106	243.697	NA	303.830	297.500	NA	14.559	141.154	NA
Burn	Oak/Bay	acres->	0.11	25%	1	16.360	2.353	1.415	NA	1.765	1.728	NA	0.085	0.820	NA	20.449	2.941	1.769	NA	2.206	2.160	NA	0.106	1.025	NA
Burn	Pine	acres->	0.00	25%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.54	25%	1	52.473	8.304	4.814	NA	6.138	5.897	NA	NA	2.696	NA	65.591	10.380	6.018	NA	7.672	7.372	NA	NA	3.370	NA
Burn	Grass	acres->	0.00	25%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	75%	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.888	0.862	15.515	0.021	3.185	1.165	2168	0.020	0.054	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	75%	4	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.183	0.040	0.442	0.000	6.691	0.678	51	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2340.910**	**337.901**	**223.465**	**0.040**	**258.817**	**247.345**	**3732**	**11.766**	**116.694**	**125.379**	**3381.712**	**498.114**	**754.068**	**0.955**	**464.450**	**342.031**	**87020**	**15.478**	**152.095**	**3385.237**

CC003	Treated Area (acres) -->	2.07	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		10	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	26.843	0.731	0.537	0.001	0.374	0.344	45	0.056	0.041	4.644
Offroad	Chainsaws	G	2		10	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.002	2.213	0.035	0.000	0.006	0.006	11	0.018	0.138	1.323
Offroad	Chainsaws Preempt	G	1		10	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.838	2.675	0.042	0.001	0.008	0.007	13	0.014	0.166	1.599
Offroad	Chippers/Stump Grinders-Trailer	G	1		10	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	415.865	11.238	7.193	0.016	5.393	4.961	643	0.429	0.621	69.405
Offroad	Mowers, Rear Engine Riding	G	1		10	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	20.101	0.321	0.230	0.001	0.016	0.014	34	0.034	0.018	3.446
Offroad	Trimmers/Edgers/Brush Cutters	G	2		10	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.468	0.446	0.013	0.000	0.002	0.002	4	0.007	0.028	0.413
Onroad	Worker Trips-Paved Roads	G	4		10	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	4		10	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.01	75%	2	2.572	0.370	0.222	NA	0.277	0.272	NA	0.013	0.129	NA	3.857	0.555	0.334	NA	0.416	0.407	NA	0.020	0.193	NA
Burn	Pine	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	1.55	75%	2	375.952	59.497	34.491	NA	43.976	42.251	NA	NA	19.315	NA	563.928	89.245	51.737	NA	65.964	63.377	NA	NA	28.972	NA
Burn	Grass	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**428.457**	**62.024**	**39.921**	**0.010**	**49.668**	**43.787**	**863**	**0.084**	**19.571**	**8.083**	**1057.352**	**109.210**	**65.848**	**0.047**	**96.822**	**72.001**	**3301**	**0.683**	**30.305**	**80.830**

CC006	Treated Area (acres) -->	0.81	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		4	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	10.737	0.293	0.215	0.001	0.150	0.138	18	0.023	0.016	1.858
Offroad	Chainsaws	G	2		4	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1		4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Trimmers/Edgers/Brush Cutters	G	2		4	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	4		4	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	4		4	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.12	100%	1	89.887	12.928	7.777	NA	9.696	9.494	NA	0.465	4.504	NA	89.887	12.928	7.777	NA	9.696	9.494	NA	0.465	4.504	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.69	100%	1	336.658	53.278	30.886	NA	39.380	37.835	NA	NA	17.296	NA	336.658	53.278	30.886	NA	39.380	37.835	NA	NA	17.296	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**431.796**	**66.967**	**38.873**	**0.002**	**51.315**	**47.604**	**203**	**0.484**	**21.849**	**0.798**	**447.551**	**69.250**	**39.503**	**0.010**	**58.036**	**48.429**	**813**	**0.542**	**21.995**	**3.192**

CC007	Treated Area (acres) -->	0.91	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mo	s																								
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Mowers, Rear Engine Riding	G	1		5	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	10.051	0.161	0.115	0.000	0.008	0.007	17	0.017	0.009	1.723
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**49.934**	**2.157**	**5.207**	**0.010**	**5.414**	**1.264**	**863**	**0.071**	**0.127**	**8.083**	**245.326**	**9.825**	**9.016**	**0.026**	**16.538**	**4.354**	**1946**	**0.334**	**0.577**	**40.415**

CC008	Treated Area (acres) -->	0.61	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Mowers, Rear Engine Riding	G	1		3	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	6.030	0.096	0.069	0.000	0.005	0.004	10	0.010	0.005	1.034
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.24	100%	1	181.256	26.068	15.682	NA	19.551	19.144	NA	0.937	9.083	NA	181.256	26.068	15.682	NA	19.551	19.144	NA	0.937	9.083	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.38	100%	1	182.348	28.858	16.729	NA	21.330	20.493	NA	NA	9.368	NA	182.348	28.858	16.729	NA	21.330	20.493	NA	NA	9.368	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**412.452**	**56.843**	**33.363**	**0.004**	**43.662**	**40.410**	**271**	**1.003**	**18.564**	**8.083**	**510.148**	**60.677**	**35.268**	**0.012**	**49.223**	**41.954**	**813**	**1.134**	**18.789**	**24.249**

CC010	Treated Area (acres) -->	1.59	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		8	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	21.474	0.585	0.430	0.001	0.300	0.276	36	0.045	0.033	3.715
Offroad	Chainsaws	G	2		8	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	3.202	1.770	0.028	0.000	0.005	0.005	9	0.014	0.110	1.059
Offroad	Chainsaws Preempt	G	1		8	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.870	2.140	0.034	0.000	0.006	0.006	10	0.011	0.133	1.279
Offroad	Chippers/Stump Grinders-Trailer	G	1		8	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	332.692	8.990	5.754	0.013	4.314	3.969	515	0.343	0.497	55.524
Offroad	Mowers, Rear Engine Riding	G	1		8	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	16.081	0.257	0.184	0.001	0.013	0.012	27	0.027	0.014	2.757
Offroad	Trimmers/Edgers/Brush Cutters	G	2		8	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.174	0.357	0.010	0.000	0.002	0.002	3	0.006	0.022	0.330
Onroad	Worker Trips-Paved Roads	G	4		8	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	10.128	0.950	1.017	0.016	0.748	0.222	1486	0.075	0.085	NA
Onroad	Worker Trips-Unpaved Roads	G	4		8	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.164	0.285	0.161	0.001	16.859	1.689	82	0.004	0.005	NA
Burn	Eucalyptus/Acacia	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	1.32	75%	2	503.907	72.472	43.596	NA	54.354	53.222	NA	2.604	25.252	NA	755.861	108.708	65.395	NA	81.531	79.832	NA	3.907	37.878	NA
Burn	Pine	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.27	75%	2	66.337	10.498	6.086	NA	7.760	7.455	NA	NA	3.408	NA	99.505	15.747	9.129	NA	11.639	11.183	NA	NA	5.112	NA
Burn	Grass	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**620.178**	**85.128**	**54.890**	**0.010**	**67.528**	**61.941**	**863**	**2.676**	**28.787**	**8.083**	**1247.236**	**140.031**	**86.397**	**0.039**	**118.051**	**97.687**	**2759**	**4.438**	**43.904**	**64.664**

CC012	Treated Area (acres) -->	0.58	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Mowers, Rear Engine Riding	G	1		3	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	6.030	0.096	0.069	0.000	0.005	0.004	10	0.010	0.005	1.034
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**49.934**	**2.157**	**5.207**	**0.010**	**5.414**	**1.264**	**863**	**0.071**	**0.127**	**8.083**	**148.716**	**6.232**	**11.367**	**0.024**	**13.610**	**3.300**	**1996**	**0.208**	**0.367**	**24.249**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 74.28

EBRPD - Claremont Canyon Regional Preserve

CC001	Treated Area (acres) -->	1.91	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		10	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	26.843	0.731	0.537	0.001	0.374	0.344	45	0.056	0.041	4.644
Offroad	Chainsaws	G	2		10	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.002	2.213	0.035	0.000	0.006	0.006	11	0.018	0.138	1.323
Offroad	Chainsaws Preempt	G	1		10	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.838	2.675	0.042	0.001	0.008	0.007	13	0.014	0.166	1.599
Offroad	Chippers/Stump Grinders-Trailer	G	1		10	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	415.865	11.238	7.193	0.016	5.393	4.961	643	0.429	0.621	69.405
Offroad	Loaders, Skid Steer	D	1		10	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.042	1.381	6.085	0.009	0.419	0.386	681	0.000	0.125	31.371
Offroad	Trimmers/Edgers/Brush Cutters	G	2		10	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.468	0.446	0.013	0.000	0.002	0.002	4	0.007	0.028	0.413
Onroad	Worker Trips-Paved Roads	G	4		10	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	4		10	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	1.46	100%	2	1701.575	244.721	147.215	NA	183.541	179.717	NA	8.795	85.270	NA	3403.151	489.442	294.430	NA	367.081	359.434	NA	17.589	170.540	NA
Burn	Oak/Bay	acres->	0.00	100%	2	0.934	0.134	0.081	NA	0.101	0.099	NA	0.005	0.047	NA	1.868	0.269	0.162	NA	0.201	0.197	NA	0.010	0.094	NA
Burn	Pine	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.45	100%	2	108.774	17.214	9.979	NA	12.724	12.225	NA	NA	5.588	NA	217.548	34.428	19.959	NA	25.447	24.449	NA	NA	11.177	NA
Burn	Grass	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1858.725**	**264.092**	**158.813**	**0.005**	**199.186**	**192.850**	**336**	**8.862**	**91.028**	**10.876**	**4096.988**	**544.367**	**329.928**	**0.049**	**420.942**	**392.176**	**3357**	**18.223**	**183.041**	**108.756**

CC002	Treated Area (acres) -->	0.14	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Mowers, Rear Engine Riding	G	1		1	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**8.347**	**1.034**	**4.488**	**0.008**	**4.875**	**0.768**	**798**	**0.028**	**0.065**	**1.143**	**8.347**	**1.034**	**4.488**	**0.008**	**4.875**	**0.768**	**798**	**0.028**	**0.065**	**1.143**

CC003	Treated Area (acres) -->	6.18	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		31	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	83.212	2.267	1.666	0.004	1.161	1.068	138	0.175	0.127	14.396
Offroad	Chainsaws	G	2		31	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	12.407	6.860	0.108	0.001	0.020	0.018	34	0.056	0.426	4.102
Offroad	Chainsaws Preempt	G	1		31	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	14.997	8.292	0.130	0.002	0.024	0.022	41	0.045	0.515	4.958
Offroad	Chippers/Stump Grinders-Trailer	G	1		31	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	1289.180	34.838	22.297	0.051	16.717	15.380	1994	1.330	1.927	215.156
Offroad	Mowers, Rear Engine Riding	G	1		31	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	62.315	0.997	0.713	0.003	0.048	0.045	104	0.104	0.056	10.683
Offroad	Trimmers/Edgers/Brush Cutters	G	2		31	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	4.549	1.382	0.039	0.001	0.007	0.007	12	0.022	0.086	1.280
Onroad	Worker Trips-Paved Roads	G	4		31	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	39.244	3.683	3.943	0.063	2.900	0.862	5758	0.291	0.330	NA
Onroad	Worker Trips-Unpaved Roads	G	4		31	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	8.384	1.106	0.623	0.004	65.330	6.546	316	0.016	0.018	NA
Burn	Eucalyptus/Acacia	acres->	0.20	75%	5	79.006	11.363	6.835	NA	8.522	8.344	NA	0.408	3.959	NA	355.526	51.132	30.759	NA	38.349	37.550	NA	1.838	17.816	NA
Burn	Oak/Bay	acres->	0.00	75%	5	0.048	0.007	0.004	NA	0.005	0.005	NA	0.000	0.002	NA	0.215	0.031	0.019	NA	0.023	0.023	NA	0.001	0.011	NA
Burn	Pine	acres->	0.00	75%	5	0.013	0.001	0.001	NA	0.001	0.001	NA	0.000	0.001	NA	0.057	0.005	0.004	NA	0.006	0.006	NA	0.000	0.002	NA
Burn	Scrub	acres->	5.98	75%	5	484.037	76.602	44.407	NA	56.619	54.399	NA	NA	24.868	NA	2178.166	344.710	199.832	NA	254.785	244.794	NA	NA	111.906	NA
Burn	Grass	acres->	0.00	75%	5	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	25%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**613.037**	**90.130**	**56.455**	**0.010**	**70.562**	**64.013**	**863**	**0.480**	**28.957**	**8.083**	**4049.883**	**455.662**	**266.516**	**0.136**	**383.321**	**307.056**	**9286**	**3.884**	**133.243**	**250.574**

CC004	Treated Area (acres) -->	2.00	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 years																									
Offroad	Air Compressors	G	1		10	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	26.843	0.731	0.537	0.001	0.374	0.344	45	0.056	0.041	4.644
Offroad	Chainsaws	G	2		10	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.002	2.213	0.035	0.000	0.006	0.006	11	0.018	0.138	1.323
Offroad	Chainsaws Preempt	G	1		10	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.838	2.675	0.042	0.001	0.008	0.007	13	0.014	0.166	1.599
Offroad	Skidders	D	1		10	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		10	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.468	0.446	0.013	0.000	0.002	0.002	4	0.007	0.028	0.413
Onroad	Worker Trips-Paved Roads	G	4		10	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	4		10	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**9.990**	**1.521**	**8.581**	**0.015**	**5.102**	**0.977**	**1430**	**0.025**	**0.110**	**29.767**	**91.214**	**13.283**	**51.769**	**0.107**	**29.954**	**5.836**	**9570**	**0.206**	**0.983**	**297.668**

CC005	Treated Area (acres) -->	0.64	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Mowers, Rear Engine Riding	G	1		3	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	6.030	0.096	0.069	0.000	0.005	0.004	10	0.010	0.005	1.034
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**49.934**	**2.157**	**5.207**	**0.010**	**5.414**	**1.264**	**863**	**0.071**	**0.127**	**8.083**	**147.630**	**5.991**	**7.112**	**0.018**	**10.976**	**2.809**	**1404**	**0.203**	**0.352**	**24.249**

CC008	Treated Area (acres) -->	0.16	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Mowers, Rear Engine Riding	G	1		1	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.16	100%	1	373.076	53.656	32.277	NA	40.242	39.404	NA	1.928	18.696	NA	373.076	53.656	32.277	NA	40.242	39.404	NA	1.928	18.696	NA
Burn	Oak/Bay	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	100%	1	0.004	0.001	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.004	0.001	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**421.928**	**55.573**	**33.230**	**0.004**	**43.023**	**40.176**	**271**	**1.994**	**18.808**	**8.083**	**421.928**	**55.573**	**33.230**	**0.004**	**43.023**	**40.176**	**271**	**1.994**	**18.808**	**8.083**

CC009	Treated Area (acres) -->	37.00	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		185	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	496.589	13.530	9.941	0.024	6.927	6.373	826	1.042	0.756	85.914
Offroad	Chainsaws	G	2		185	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	74.044	40.939	0.643	0.008	0.117	0.107	200	0.332	2.545	24.478
Offroad	Chainsaws Preempt	G	1		185	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	89.500	49.484	0.777	0.010	0.141	0.130	242	0.266	3.076	29.588
Offroad	Chippers/Stump Grinders-Trailer	G	1		185	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	7693.496	207.903	133.062	0.302	99.762	91.781	11901	7.934	11.498	1283.993
Offroad	Mowers, Rear Engine Riding	G	1		185	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	371.878	5.947	4.255	0.018	0.289	0.266	623	0.621	0.334	63.750
Offroad	Trimmers/Edgers/Brush Cutters	G	2		185	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	27.150	8.245	0.236	0.003	0.043	0.039	73	0.130	0.512	7.640
Onroad	Worker Trips-Paved Roads	G	4		185	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	234.200	21.978	23.529	0.374	17.308	5.143	34365	1.738	1.972	NA
Onroad	Worker Trips-Unpaved Roads	G	4		185	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	50.033	6.599	3.720	0.021	389.874	39.067	1887	0.095	0.108	NA
Burn	Eucalyptus/Acacia	acres->	0.14	50%	19	8.793	1.265	0.761	NA	0.948	0.929	NA	0.045	0.441	NA	162.669	23.395	14.074	NA	17.546	17.181	NA	0.841	8.152	NA
Burn	Oak/Bay	acres->	0.62	50%	19	12.767	1.836	1.105	NA	1.377	1.348	NA	0.066	0.640	NA	236.197	33.970	20.435	NA	25.477	24.947	NA	1.221	11.836	NA
Burn	Pine	acres->	0.00	50%	19	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	36.24	50%	19	475.889	75.313	43.660	NA	55.666	53.483	NA	NA	24.449	NA	8803.950	1393.286	807.702	NA	1029.820	989.435	NA	NA	452.313	NA
Burn	Grass	acres->	0.00	50%	19	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	19	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	19.183	4.251	76.542	0.103	15.712	5.748	10694	0.098	0.264	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	19	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.903	0.197	2.179	0.002	33.010	3.344	252	0.002	0.006	NA
Totals For Cutting/Skidding/Chipping/Trimming						**547.383**	**80.571**	**50.732**	**0.010**	**63.406**	**57.024**	**863**	**0.183**	**25.657**	**8.083**	**18259.791**	**1809.726**	**1097.096**	**0.865**	**1636.027**	**1183.561**	**61064**	**14.320**	**493.372**	**1495.364**

CC010	Treated Area (acres) -->	0.40	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders-Trailer	G	1		2	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	83.173	2.248	1.439	0.003	1.079	0.992	129	0.086	0.124	13.881
Offroad	Mowers, Rear Engine Riding	G	1		2	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	4.020	0.064	0.046	0.000	0.003	0.003	7	0.007	0.004	0.689
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	4		2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4		2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.40	75%	1	696.379	100.153	60.249	NA	75.115	73.550	NA	3.599	34.897	NA	696.379	100.153	60.249	NA	75.115	73.550	NA	3.599	34.897	NA
Burn	Oak/Bay	acres->	0.00	75%	1	0.036	0.005	0.003	NA	0.004	0.004	NA	0.000	0.002	NA	0.036	0.005	0.003	NA	0.004	0.004	NA	0.000	0.002	NA
Burn	Pine	acres->	0.00	75%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	75%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	75%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**746.349**	**102.316**	**65.459**	**0.010**	**80.533**	**74.818**	**863**	**3.671**	**35.026**	**8.083**	**795.197**	**104.233**	**66.411**	**0.014**	**83.314**	**75.590**	**1133**	**3.736**	**35.139**	**16.166**

CC011	Treated Area (acres) -->	25.85	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		129	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	346.270	9.435	6.932	0.016	4.830	4.444	576	0.727	0.527	59.908
Offroad	Chainsaws	G	2		129	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	51.631	28.546	0.448	0.006	0.081	0.075	140	0.231	1.774	17.069
Offroad	Chainsaws Preempt	G	1		129	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	62.408	34.505	0.542	0.007	0.098	0.090	169	0.185	2.145	20.632
Offroad	Chippers/Stump Grinders-Trailer	G	1		129	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	5364.654	144.970	92.784	0.210	69.564	63.999	8298	5.533	8.017	895.325
Offroad	Trimmers/Edgers/Brush Cutters	G	2		129	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	18.932	5.749	0.164	0.002	0.030	0.027	51	0.090	0.357	5.327
Onroad	Worker Trips-Paved Roads	G	4		129	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	163.307	15.325	16.407	0.261	12.069	3.586	23963	1.212	1.375	NA
Onroad	Worker Trips-Unpaved Roads	G	4		129	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	34.888	4.602	2.594	0.015	271.858	27.241	1316	0.066	0.075	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	13	0.095	0.014	0.008	NA	0.010	0.010	NA	0.000	0.005	NA	1.236	0.178	0.107	NA	0.133	0.131	NA	0.006	0.062	NA
Burn	Oak/Bay	acres->	0.26	50%	13	7.552	1.086	0.653	NA	0.815	0.798	NA	0.039	0.378	NA	98.179	14.120	8.494	NA	10.590	10.369	NA	0.507	4.920	NA
Burn	Pine	acres->	0.00	50%	13	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	25.59	50%	13	478.248	75.686	43.876	NA	55.942	53.748	NA	NA	24.571	NA	6217.222	983.918	570.387	NA	727.244	698.725	NA	NA	319.417	NA
Burn	Grass	acres->	0.00	50%	13	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	13	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	13.480	2.987	53.786	0.072	11.041	4.039	7515	0.069	0.186	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	13	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.634	0.139	1.531	0.002	23.197	2.350	177	0.002	0.004	NA
Totals For Cutting/Skidding/Chipping/Trimming						**533.819**	**78.911**	**49.722**	**0.010**	**62.180**	**55.818**	**859**	**0.107**	**25.079**	**7.738**	**12372.841**	**1244.475**	**754.177**	**0.591**	**1130.735**	**815.076**	**42204**	**8.629**	**338.860**	**998.260**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION
EBRPD - Claremont Canyon Regional Preserve
NONE

PROPOSED ACTION Treated Area (acres) --> 4.02

EBRPD - Huckleberry Botanic Regional Preserve

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

HP001	Treated Area (acres) -->	0.65	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	2		3	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	4.118	1.062	12.846	0.018	0.398	0.366	1860	0.000	0.096	84.235
Offroad	Fellers/Bunchers	D	1		3	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	4.549	1.415	13.631	0.026	0.433	0.398	2348	0.000	0.128	106.284
Offroad	Skidders	D	2		3	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	21.917	3.116	24.695	0.043	1.372	1.262	3813	0.000	0.281	173.813
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	8		3	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	8		3	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.65	50%	1	760.622	109.393	65.807	NA	82.045	80.335	NA	3.931	38.117	NA	760.622	109.393	65.807	NA	82.045	80.335	NA	3.931	38.117	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**778.690**	**112.413**	**87.476**	**0.039**	**89.854**	**82.016**	**3664**	**3.966**	**38.359**	**122.242**	**812.655**	**117.973**	**122.306**	**0.107**	**100.204**	**84.395**	**9810**	**4.025**	**38.815**	**366.726**

HP002	Treated Area (acres) -->	2.41	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders-Trailer	G	1		12	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	499.038	13.486	8.631	0.020	6.471	5.953	772	0.515	0.746	83.286
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	4		12	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	15.191	1.426	1.526	0.024	1.123	0.334	2229	0.113	0.128	NA
Onroad	Worker Trips-Unpaved Roads	G	4		12	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.245	0.428	0.241	0.001	25.289	2.534	122	0.006	0.007	NA
Burn	Eucalyptus/Acacia	acres->	0.28	100%	2	322.473	46.378	27.899	NA	34.784	34.059	NA	1.667	16.160	NA	644.946	92.756	55.799	NA	69.567	68.118	NA	3.333	32.320	NA
Burn	Oak/Bay	acres->	0.52	100%	2	199.671	28.717	17.275	NA	21.538	21.089	NA	1.032	10.006	NA	399.341	57.433	34.550	NA	43.075	42.178	NA	2.064	20.012	NA
Burn	Pine	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Chaparral	acres->	1.61	100%	2	879.354	253.270	81.046	NA	95.230	93.203	NA	NA	41.942	NA	1758.709	506.540	162.093	NA	190.459	186.407	NA	NA	83.883	NA
Burn	Grass	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1448.336**	**330.250**	**127.150**	**0.004**	**154.330**	**149.122**	**268**	**2.761**	**68.218**	**7.738**	**3365.051**	**679.347**	**263.592**	**0.048**	**336.453**	**305.955**	**3210**	**6.146**	**137.542**	**92.861**

HP003	Treated Area (acres) -->	0.78	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		4	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	10.737	0.293	0.215	0.001	0.150	0.138	18	0.023	0.016	1.858
Offroad	Chainsaws	G	2		4	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1		4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders-Trailer	G	1		4	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	166.346	4.495	2.877	0.007	2.157	1.984	257	0.172	0.249	27.762
Offroad	Trimmers/Edgers/Brush Cutters	G	2		4	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	4		4	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	4		4	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Chaparral	acres->	0.78	100%	1	848.772	244.462	78.228	NA	91.918	89.962	NA	NA	40.483	NA	848.772	244.462	78.228	NA	91.918	89.962	NA	NA	40.483	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**895.610**	**246.347**	**79.157**	**0.004**	**94.697**	**90.733**	**268**	**0.062**	**40.594**	**7.738**	**1036.123**	**252.001**	**81.945**	**0.016**	**103.035**	**93.046**	**1070**	**0.249**	**40.925**	**30.954**

HP004	Treated Area (acres) -->	0.19	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.06	100%	1	42.422	6.101	3.670	NA	4.576	4.481	NA	0.219	2.126	NA	42.422	6.101	3.670	NA	4.576	4.481	NA	0.219	2.126	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.13	100%	1	63.778	10.093	5.851	NA	7.460	7.168	NA	NA	3.277	NA	63.778	10.093	5.851	NA	7.460	7.168	NA	NA	3.277	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**153.038**	**18.079**	**10.451**	**0.004**	**14.815**	**12.419**	**268**	**0.282**	**5.513**	**7.738**	**153.038**	**18.079**	**10.451**	**0.004**	**14.815**	**12.419**	**268**	**0.282**	**5.513**	**7.738**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 0.19

EBRPD - Huckleberry Botanic Regional Preserve

HP004	Treated Area (acres) -->	0.19	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	1	2.130	0.306	0.184	NA	0.230	0.225	NA	0.011	0.107	NA	2.130	0.306	0.184	NA	0.230	0.225	NA	0.011	0.107	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.18	100%	1	88.876	14.065	8.154	NA	10.396	9.988	NA	NA	4.566	NA	88.876	14.065	8.154	NA	10.396	9.988	NA	NA	4.566	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**137.844**	**16.256**	**9.267**	**0.004**	**13.405**	**10.984**	**268**	**0.073**	**4.783**	**7.738**	**137.844**	**16.256**	**9.267**	**0.004**	**13.405**	**10.984**	**268**	**0.073**	**4.783**	**7.738**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION

EBRPD - Huckleberry Botanic Regional Preserve

NONE

PROPOSED ACTION
EBRPD - Kennedy Grove Regional Recreational Area
NONE

CONNECTED ACTION
EBRPD - Kennedy Grove Regional Recreational Area
NONE

CUMULATIVE ACTION Treated Area (acres) --> 4.66
EBRPD - Kennedy Grove Regional Recreational Area

			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

KG001	Treated Area (acres) -->	0.58	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**141.599**	**5.895**	**7.043**	**0.018**	**10.972**	**2.805**	**1394**	**0.193**	**0.347**	**23.215**

KG002	Treated Area (acres) -->	2.27	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		11	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	29.527	0.805	0.591	0.001	0.412	0.379	49	0.062	0.045	5.108
Offroad	Chainsaws	G	2		11	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1		11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders-Trailer	G	1		11	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	457.451	12.362	7.912	0.018	5.932	5.457	708	0.472	0.684	76.346
Offroad	Loaders, Skid Steer	D	1		11	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.647	1.519	6.694	0.010	0.461	0.424	750	0.000	0.137	34.509
Offroad	Trimmers/Edgers/Brush Cutters	G	2		11	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	4		11	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	13.925	1.307	1.399	0.022	1.029	0.306	2043	0.103	0.117	NA
Onroad	Worker Trips-Unpaved Roads	G	4		11	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.975	0.392	0.221	0.001	23.182	2.323	112	0.006	0.006	NA
Burn	Eucalyptus/Acacia	acres->	2.27	50%	1	2643.835	380.237	228.736	NA	285.178	279.236	NA	13.665	132.489	NA	2643.835	380.237	228.736	NA	285.178	279.236	NA	13.665	132.489	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.239	0.034	0.021	NA	0.026	0.025	NA	0.001	0.012	NA	0.239	0.034	0.021	NA	0.026	0.025	NA	0.001	0.012	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2692.602**	**382.535**	**234.550**	**0.011**	**290.658**	**280.563**	**927**	**13.734**	**132.639**	**10.876**	**3167.024**	**402.763**	**249.928**	**0.059**	**318.871**	**288.659**	**4284**	**14.357**	**133.869**	**119.631**

KG003	Treated Area (acres) -->	0.50	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**141.599**	**5.895**	**7.043**	**0.018**	**10.972**	**2.805**	**1394**	**0.193**	**0.347**	**23.215**

KG004	Treated Area (acres) -->	1.31	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.029	3.251
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders-Trailer	G	1		7	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	291.105	7.867	5.035	0.011	3.775	3.473	450	0.300	0.435	48.584
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	4		7	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	8.862	0.832	0.890	0.014	0.655	0.195	1300	0.066	0.075	NA
Onroad	Worker Trips-Unpaved Roads	G	4		7	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.893	0.250	0.141	0.001	14.752	1.478	71	0.004	0.004	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**328.951**	**13.434**	**10.760**	**0.034**	**22.089**	**5.889**	**2464**	**0.442**	**0.789**	**54.169**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 0.30

EBRPD - Lake Chabot Regional Park

	Treated Area (acres) -->	1.31	No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

LC010	Treated Area (acres) -->	0.30	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.14	50%	1	54.304	7.810	4.698	NA	5.858	5.735	NA	0.281	2.721	NA	54.304	7.810	4.698	NA	5.858	5.735	NA	0.281	2.721	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.16	50%	1	37.755	5.975	3.464	NA	4.416	4.243	NA	NA	1.940	NA	37.755	5.975	3.464	NA	4.416	4.243	NA	NA	1.940	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**139.983**	**15.910**	**13.346**	**0.010**	**15.687**	**11.241**	**859**	**0.348**	**4.786**	**7.738**	**139.983**	**15.910**	**13.346**	**0.010**	**15.687**	**11.241**	**859**	**0.348**	**4.786**	**7.738**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION

EBRPD - Lake Chabot Regional Park

NONE

CUMULATIVE ACTION Treated Area (acres) --> 36.64

EBRPD - Lake Chabot Regional Park

			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

LC001	Treated Area (acres) -->	1.74	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		9	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	24.158	0.658	0.484	0.001	0.337	0.310	40	0.051	0.037	4.180
Offroad	Chainsaws	G	2		9	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	3.602	1.992	0.031	0.000	0.006	0.005	10	0.016	0.124	1.191
Offroad	Chainsaws Preempt	G	1		9	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	4.354	2.407	0.038	0.000	0.007	0.006	12	0.013	0.150	1.439
Offroad	Chippers/Stump Grinders	D	2		9	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	12.354	3.187	38.538	0.055	1.195	1.099	5580	0.000	0.288	252.706
Offroad	Fellers/Bunchers	D	1		9	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	13.647	4.245	40.894	0.079	1.298	1.194	7043	0.000	0.383	318.852
Offroad	Skidders	D	2		9	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	65.751	9.347	74.085	0.129	4.116	3.787	11439	0.000	0.843	521.439
Offroad	Trimmers/Edgers/Brush Cutters	G	2		9	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.321	0.401	0.011	0.000	0.002	0.002	4	0.006	0.025	0.372
Onroad	Worker Trips-Paved Roads	G	4		9	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	11.393	1.069	1.145	0.018	0.842	0.250	1672	0.085	0.096	NA
Onroad	Worker Trips-Unpaved Roads	G	4		9	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.434	0.321	0.181	0.001	18.967	1.901	92	0.005	0.005	NA
Burn	Eucalyptus/Acacia	acres->	1.74	50%	1	2028.564	291.748	175.505	NA	218.811	214.253	NA	10.485	101.656	NA	2028.564	291.748	175.505	NA	218.811	214.253	NA	10.485	101.656	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2045.096**	**294.614**	**197.028**	**0.037**	**224.419**	**215.695**	**3468**	**10.510**	**101.887**	**122.242**	**2168.665**	**315.618**	**335.167**	**0.290**	**248.214**	**223.299**	**26482**	**10.665**	**103.621**	**1100.178**

LC002	Treated Area (acres) -->	0.61	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	2		3	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	4.118	1.062	12.846	0.018	0.398	0.366	1860	0.000	0.096	84.235
Offroad	Fellers/Bunchers	D	1		3	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	4.549	1.415	13.631	0.026	0.433	0.398	2348	0.000	0.128	106.284
Offroad	Skidders	D	2		3	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	21.917	3.116	24.695	0.043	1.372	1.262	3813	0.000	0.281	173.813
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	8		3	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	8		3	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.61	50%	1	708.698	101.925	61.314	NA	76.444	74.851	NA	3.663	35.515	NA	708.698	101.925	61.314	NA	76.444	74.851	NA	3.663	35.515	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**726.766**	**104.945**	**82.984**	**0.039**	**84.253**	**76.532**	**3664**	**3.698**	**35.757**	**122.242**	**760.732**	**110.505**	**117.814**	**0.107**	**94.604**	**78.911**	**9810**	**3.757**	**36.213**	**366.726**

LC003	Treated Area (acres) -->	0.97	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	0.97	50%	1	1128.744	162.336	97.655	NA	121.752	119.216	NA	5.834	56.564	NA	1128.744	162.336	97.655	NA	121.752	119.216	NA	5.834	56.564	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**1146.813**	**165.357**	**119.325**	**0.039**	**129.561**	**120.897**	**3664**	**5.869**	**56.807**	**122.242**	**1214.743**	**176.476**	**188.984**	**0.174**	**150.263**	**125.654**	**15955**	**5.986**	**57.718**	**611.210**

LC004	Treated Area (acres) -->	1.07	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	1.07	50%	1	1250.042	179.781	108.150	NA	134.836	132.027	NA	6.461	62.643	NA	1250.042	179.781	108.150	NA	134.836	132.027	NA	6.461	62.643	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**1268.110**	**182.802**	**129.820**	**0.039**	**142.645**	**133.708**	**3664**	**6.496**	**62.885**	**122.242**	**1336.040**	**193.921**	**199.478**	**0.174**	**163.346**	**138.466**	**15955**	**6.613**	**63.797**	**611.210**

LC005a	Treated Area (acres) -->	1.03	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	1.03	50%	1	1201.111	172.744	103.916	NA	129.558	126.859	NA	6.208	60.191	NA	1201.111	172.744	103.916	NA	129.558	126.859	NA	6.208	60.191	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**1249.035**	**174.869**	**109.101**	**0.010**	**134.971**	**128.121**	**859**	**6.276**	**60.316**	**7.738**	**1436.387**	**182.408**	**112.818**	**0.026**	**146.088**	**131.206**	**1929**	**6.525**	**60.758**	**38.692**

LC005b	Treated Area (acres) -->	2.63	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		13	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	34.895	0.951	0.699	0.002	0.487	0.448	58	0.073	0.053	6.037
Offroad	Chainsaws	G	2		13	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1		13	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.289	3.477	0.055	0.001	0.010	0.009	17	0.019	0.216	2.079
Offroad	Chippers/Stump Grinders-Trailer	G	1		13	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	540.624	14.609	9.350	0.021	7.010	6.449	836	0.558	0.808	90.227
Offroad	Trimmers/Edgers/Brush Cutters	G	2		13	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	4		13	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	16.457	1.544	1.653	0.026	1.216	0.361	2415	0.122	0.139	NA
Onroad	Worker Trips-Unpaved Roads	G	4		13	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.516	0.464	0.261	0.001	27.397	2.745	133	0.007	0.008	NA
Burn	Eucalyptus/Acacia	acres->	2.63	50%	2	2040.542	293.471	176.541	NA	220.103	215.518	NA	10.547	102.256	NA	3060.813	440.207	264.812	NA	330.155	323.277	NA	15.820	153.385	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2088.465**	**295.596**	**181.726**	**0.010**	**225.516**	**216.780**	**859**	**10.614**	**102.382**	**7.738**	**3671.334**	**465.069**	**283.275**	**0.061**	**370.237**	**334.037**	**4366**	**16.639**	**154.845**	**100.600**

LC006	Treated Area (acres) -->	13.56	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		68	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	182.530	4.973	3.654	0.009	2.546	2.342	304	0.383	0.278	31.579
Offroad	Chainsaws	G	2		68	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	27.216	15.048	0.236	0.003	0.043	0.039	74	0.122	0.935	8.997
Offroad	Chainsaws Preempt	G	1		68	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	32.897	18.189	0.286	0.004	0.052	0.048	89	0.098	1.131	10.876
Offroad	Chippers/Stump Grinders-Trailer	G	1		68	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	2827.879	76.419	48.909	0.111	36.669	33.736	4374	2.916	4.226	471.954
Offroad	Trimmers/Edgers/Brush Cutters	G	2		68	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	9.979	3.031	0.087	0.001	0.016	0.014	27	0.048	0.188	2.808
Onroad	Worker Trips-Paved Roads	G	4		68	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	86.084	8.079	8.649	0.137	6.362	1.890	12631	0.639	0.725	NA
Onroad	Worker Trips-Unpaved Roads	G	4		68	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	18.390	2.426	1.368	0.008	143.305	14.360	694	0.035	0.040	NA
Burn	Eucalyptus/Acacia	acres->	12.59	50%	7	2095.287	301.345	181.278	NA	226.009	221.300	NA	10.830	105.000	NA	14667.012	2109.413	1268.944	NA	1582.060	1549.100	NA	75.807	734.999	NA
Burn	Oak/Bay	acres->	0.25	50%	7	13.446	1.934	1.163	NA	1.450	1.420	NA	0.069	0.674	NA	94.119	13.536	8.143	NA	10.152	9.941	NA	0.486	4.717	NA
Burn	Pine	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.73	50%	7	25.169	3.983	2.309	NA	2.944	2.829	NA	NA	1.293	NA	176.182	27.882	16.163	NA	20.608	19.800	NA	NA	9.052	NA
Burn	Grass	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	7	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	7.258	1.609	28.962	0.039	5.945	2.175	4046	0.037	0.100	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	7	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.342	0.075	0.825	0.001	12.490	1.265	95	0.001	0.002	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2181.825**	**309.387**	**189.934**	**0.010**	**235.816**	**226.811**	**859**	**10.967**	**107.092**	**7.738**	**18129.889**	**2280.678**	**1386.224**	**0.312**	**1820.249**	**1634.711**	**22334**	**80.572**	**756.392**	**526.215**

LC007a	Treated Area (acres) -->	2.41	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders	D	2		12	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	16.472	4.250	51.384	0.073	1.593	1.466	7440	0.000	0.383	336.941
Offroad	Fellers/Bunchers	D	1		12	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	18.196	5.661	54.525	0.106	1.731	1.592	9390	0.000	0.511	425.136
Offroad	Skidders	D	2		12	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	87.668	12.463	98.780	0.172	5.488	5.049	15252	0.000	1.125	695.251
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	8		12	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	30.383	2.851	3.052	0.049	2.245	0.667	4458	0.226	0.256	NA
Onroad	Worker Trips-Unpaved Roads	G	8		12	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	6.491	0.856	0.483	0.003	50.578	5.068	245	0.012	0.014	NA
Burn	Eucalyptus/Acacia	acres->	2.41	50%	1	2806.753	403.668	242.831	NA	302.751	296.444	NA	14.507	140.653	NA	2806.753	403.668	242.831	NA	302.751	296.444	NA	14.507	140.653	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2824.821**	**406.688**	**264.501**	**0.039**	**310.560**	**298.124**	**3664**	**14.542**	**140.896**	**122.242**	**3011.629**	**437.267**	**456.063**	**0.410**	**367.489**	**311.209**	**37464**	**14.865**	**143.403**	**1466.904**

LC007b	Treated Area (acres) -->	2.75	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		14	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	37.580	1.024	0.752	0.002	0.524	0.482	63	0.079	0.057	6.502
Offroad	Chainsaws	G	2		14	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.603	3.098	0.049	0.001	0.009	0.008	15	0.025	0.193	1.852
Offroad	Chainsaws Preempt	G	1		14	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.773	3.745	0.059	0.001	0.011	0.010	18	0.020	0.233	2.239
Offroad	Chippers/Stump Grinders	D	2		14	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	19.218	4.958	59.948	0.085	1.859	1.710	8680	0.000	0.447	393.098
Offroad	Fellers/Bunchers	D	1		14	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	21.229	6.604	63.613	0.123	2.019	1.858	10955	0.000	0.596	495.992
Offroad	Skidders	D	2		14	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	102.280	14.540	115.243	0.200	6.403	5.890	17794	0.000	1.312	811.127
Offroad	Trimmers/Edgers/Brush Cutters	G	2		14	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.055	0.624	0.018	0.000	0.003	0.003	6	0.010	0.039	0.578
Onroad	Worker Trips-Paved Roads	G	8		14	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	35.446	3.326	3.561	0.057	2.620	0.778	5201	0.263	0.298	NA
Onroad	Worker Trips-Unpaved Roads	G	8		14	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	7.573	0.999	0.563	0.003	59.008	5.913	286	0.014	0.016	NA
Burn	Eucalyptus/Acacia	acres->	2.75	50%	2	2135.192	307.084	184.730	NA	230.313	225.515	NA	11.036	107.000	NA	3202.788	460.626	277.095	NA	345.469	338.272	NA	16.554	160.499	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2153.260**	**310.104**	**206.400**	**0.039**	**238.122**	**227.196**	**3664**	**11.071**	**107.242**	**122.242**	**3442.173**	**499.905**	**527.284**	**0.480**	**421.875**	**355.662**	**43905**	**16.973**	**163.712**	**1711.388**

LC007c	Treated Area (acres) -->	3.46	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		17	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	45.632	1.243	0.914	0.002	0.637	0.586	76	0.096	0.069	7.895
Offroad	Chainsaws	G	2		17	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.804	3.762	0.059	0.001	0.011	0.010	18	0.030	0.234	2.249
Offroad	Chainsaws Preempt	G	1		17	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	8.224	4.547	0.071	0.001	0.013	0.012	22	0.024	0.283	2.719
Offroad	Chippers/Stump Grinders	D	2		17	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	23.336	6.020	72.794	0.103	2.257	2.076	10540	0.000	0.543	477.333
Offroad	Fellers/Bunchers	D	1		17	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	25.778	8.019	77.244	0.150	2.452	2.256	13303	0.000	0.724	602.276
Offroad	Skidders	D	2		17	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	124.197	17.656	139.939	0.243	7.775	7.153	21607	0.000	1.593	984.939
Offroad	Trimmers/Edgers/Brush Cutters	G	2		17	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.495	0.758	0.022	0.000	0.004	0.004	7	0.012	0.047	0.702
Onroad	Worker Trips-Paved Roads	G	8		17	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	43.042	4.039	4.324	0.069	3.181	0.945	6316	0.319	0.362	NA
Onroad	Worker Trips-Unpaved Roads	G	8		17	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	9.195	1.213	0.684	0.004	71.653	7.180	347	0.017	0.020	NA
Burn	Eucalyptus/Acacia	acres->	3.46	50%	2	2689.593	386.818	232.695	NA	290.113	284.069	NA	13.901	134.782	NA	4034.389	580.227	349.043	NA	435.170	426.104	NA	20.852	202.173	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2707.661**	**389.838**	**254.365**	**0.039**	**297.922**	**285.750**	**3664**	**13.936**	**135.024**	**122.242**	**4324.721**	**627.845**	**651.475**	**0.582**	**527.102**	**447.062**	**53123**	**21.360**	**206.070**	**2078.114**

LC007d	Treated Area (acres) -->	0.80	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		4	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	10.737	0.293	0.215	0.001	0.150	0.138	18	0.023	0.016	1.858
Offroad	Chainsaws	G	2		4	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1		4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	2		4	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	5.491	1.417	17.128	0.024	0.531	0.489	2480	0.000	0.128	112.314
Offroad	Fellers/Bunchers	D	1		4	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	6.065	1.887	18.175	0.035	0.577	0.531	3130	0.000	0.170	141.712
Offroad	Skidders	D	2		4	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	29.223	4.154	32.927	0.057	1.829	1.683	5084	0.000	0.375	231.750
Offroad	Trimmers/Edgers/Brush Cutters	G	2		4	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	8		4	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	10.128	0.950	1.017	0.016	0.748	0.222	1486	0.075	0.085	NA
Onroad	Worker Trips-Unpaved Roads	G	8		4	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.164	0.285	0.161	0.001	16.859	1.689	82	0.004	0.005	NA
Burn	Eucalyptus/Acacia	acres->	0.80	50%	1	928.374	133.519	80.320	NA	100.139	98.053	NA	4.798	46.523	NA	928.374	133.519	80.320	NA	100.139	98.053	NA	4.798	46.523	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**946.442**	**136.539**	**101.990**	**0.039**	**107.948**	**99.734**	**3664**	**4.833**	**46.766**	**122.242**	**997.390**	**144.879**	**154.234**	**0.141**	**123.474**	**103.302**	**12882**	**4.921**	**47.449**	**488.968**

LC008	Treated Area (acres) -->	3.00	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		15	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	40.264	1.097	0.806	0.002	0.562	0.517	67	0.084	0.061	6.966
Offroad	Chainsaws	G	2		15	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.004	3.319	0.052	0.001	0.009	0.009	16	0.027	0.206	1.985
Offroad	Chainsaws Preempt	G	1		15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders	D	2		15	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	20.590	5.312	64.230	0.091	1.991	1.832	9300	0.000	0.479	421.176
Offroad	Fellers/Bunchers	D	1		15	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	22.745	7.076	68.156	0.132	2.163	1.990	11738	0.000	0.638	531.420
Offroad	Skidders	D	2		15	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	109.585	15.579	123.475	0.215	6.860	6.311	19065	0.000	1.406	869.064
Offroad	Trimmers/Edgers/Brush Cutters	G	2		15	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.201	0.668	0.019	0.000	0.003	0.003	6	0.011	0.042	0.619
Onroad	Worker Trips-Paved Roads	G	8		15	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	37.978	3.564	3.816	0.061	2.807	0.834	5573	0.282	0.320	NA
Onroad	Worker Trips-Unpaved Roads	G	8		15	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	8.113	1.070	0.603	0.003	63.223	6.335	306	0.015	0.017	NA
Burn	Eucalyptus/Acacia	acres->	2.96	50%	2	2299.943	330.778	198.984	NA	248.084	242.915	NA	11.887	115.256	NA	3449.914	496.167	298.476	NA	372.126	364.373	NA	17.831	172.883	NA
Burn	Oak/Bay	acres->	0.04	50%	2	9.370	1.348	0.811	NA	1.011	0.990	NA	0.048	0.470	NA	14.055	2.021	1.216	NA	1.516	1.484	NA	0.073	0.704	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2327.381**	**335.146**	**221.464**	**0.039**	**256.903**	**245.586**	**3664**	**11.971**	**115.968**	**122.242**	**3720.336**	**540.248**	**567.295**	**0.514**	**455.222**	**384.436**	**46977**	**18.353**	**177.029**	**1833.630**

LC009	Treated Area (acres) -->	2.61	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		13	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	34.895	0.951	0.699	0.002	0.487	0.448	58	0.073	0.053	6.037
Offroad	Chainsaws	G	2		13	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1		13	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.289	3.477	0.055	0.001	0.010	0.009	17	0.019	0.216	2.079
Offroad	Chippers/Stump Grinders-Trailer	G	1		13	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	540.624	14.609	9.350	0.021	7.010	6.449	836	0.558	0.808	90.227
Offroad	Mowers, Rear Engine Riding	G	1		13	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	26.132	0.418	0.299	0.001	0.020	0.019	44	0.044	0.023	4.480
Offroad	Trimmers/Edgers/Brush Cutters	G	2		13	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	4		13	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	16.457	1.544	1.653	0.026	1.216	0.361	2415	0.122	0.139	NA
Onroad	Worker Trips-Unpaved Roads	G	4		13	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.516	0.464	0.261	0.001	27.397	2.745	133	0.007	0.008	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.17	50%	2	43.954	6.321	3.803	NA	4.741	4.642	NA	0.227	2.203	NA	65.931	9.482	5.704	NA	7.112	6.964	NA	0.341	3.304	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	2.44	50%	2	394.632	62.453	36.205	NA	46.161	44.351	NA	NA	20.275	NA	591.948	93.680	54.307	NA	69.242	66.526	NA	NA	30.412	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**488.520**	**70.932**	**45.215**	**0.010**	**56.317**	**50.257**	**863**	**0.298**	**22.604**	**8.083**	**1294.532**	**128.442**	**78.773**	**0.062**	**116.455**	**84.269**	**4409**	**1.203**	**35.200**	**105.080**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 3.17

EBRPD - Leona Canyon Regional Open Space

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

LE005	Treated Area (acres) -->	3.17																						
Activity	**Equipment Type**	**Fuel**	**No. of Units or No. of Trips**	**% Burned or % Removed**	**Total No. of Days**	**Emission Rates (lbs/day), based on 8 hrs/day CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal/day) Fuel**	**Activity Total Emission (lbs) CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal) Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																								
Offroad	Air Compressors	G	1		16	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	42.948	1.170	0.860	0.002	0.599	0.551	71	0.090	0.065	7.430
Offroad	Chainsaws	G	2		16	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.404	3.541	0.056	0.001	0.010	0.009	17	0.029	0.220	2.117
Offroad	Chainsaws Preempt	G	1		16	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.741	4.280	0.067	0.001	0.012	0.011	21	0.023	0.266	2.559
Offroad	Chippers/Stump Grinders-Trailer	G	1		16	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	665.383	17.981	11.508	0.026	8.628	7.938	1029	0.686	0.994	111.048
Offroad	Trimmers/Edgers/Brush Cutters	G	2		16	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.348	0.713	0.020	0.000	0.004	0.003	6	0.011	0.044	0.661
Onroad	Worker Trips-Paved Roads	G	4		16	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	20.255	1.901	2.035	0.032	1.497	0.445	2972	0.150	0.171	NA
Onroad	Worker Trips-Unpaved Roads	G	4		16	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.327	0.571	0.322	0.002	33.719	3.379	163	0.008	0.009	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.01	50%	2	1.780	0.256	0.154	NA	0.192	0.188	NA	0.009	0.089	NA	2.669	0.384	0.231	NA	0.288	0.282	NA	0.014	0.134	NA
Burn	Pine	acres->	0.16	50%	2	103.824	8.584	7.869	NA	10.015	10.015	NA	0.470	4.476	NA	155.737	12.876	11.803	NA	15.022	15.022	NA	0.705	6.714	NA
Burn	Scrub	acres->	3.00	50%	2	485.992	76.912	44.586	NA	56.848	54.618	NA	NA	24.968	NA	728.988	115.367	66.880	NA	85.272	81.928	NA	NA	37.453	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	50%	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	50%	2	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**638.434**	**87.636**	**53.538**	**0.004**	**69.834**	**65.592**	**268**	**0.542**	**29.644**	**7.738**	**1636.800**	**158.783**	**93.781**	**0.064**	**145.050**	**109.568**	**4281**	**1.717**	**46.070**	**123.815**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION

EBRPD - Leona Canyon Regional Open Space

NONE

CUMULATIVE ACTION Treated Area (acres) --> 16.86

EBRPD - Leona Canyon Regional Open Space

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

LE001	Treated Area (acres) -->	0.28	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.28	50%	1	105.687	15.200	9.144	NA	11.400	11.162	NA	0.546	5.296	NA	105.687	15.200	9.144	NA	11.400	11.162	NA	0.546	5.296	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.081	0.000	0.007	NA	0.009	0.009	NA	NA	NA	NA	0.081	0.000	0.007	NA	0.009	0.009	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**153.691**	**17.325**	**14.335**	**0.010**	**16.822**	**12.434**	**859**	**0.614**	**5.421**	**7.738**	**153.691**	**17.325**	**14.335**	**0.010**	**16.822**	**12.434**	**859**	**0.614**	**5.421**	**7.738**

LE002	Treated Area (acres) -->	0.25	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.25	50%	1	59.870	9.475	5.493	NA	7.003	6.729	NA	NA	3.076	NA	59.870	9.475	5.493	NA	7.003	6.729	NA	NA	3.076	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**107.794**	**11.600**	**10.677**	**0.010**	**12.416**	**7.991**	**859**	**0.068**	**3.201**	**7.738**	**107.794**	**11.600**	**10.677**	**0.010**	**12.416**	**7.991**	**859**	**0.068**	**3.201**	**7.738**

LE003	Treated Area (acres) -->	0.91	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.12	50%	1	46.780	6.728	4.047	NA	5.046	4.941	NA	0.242	2.344	NA	46.780	6.728	4.047	NA	5.046	4.941	NA	0.242	2.344	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.79	50%	1	192.050	30.393	17.619	NA	22.465	21.584	NA	NA	9.867	NA	192.050	30.393	17.619	NA	22.465	21.584	NA	NA	9.867	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**286.754**	**39.246**	**26.851**	**0.010**	**32.923**	**27.787**	**859**	**0.310**	**12.336**	**7.738**	**474.105**	**46.785**	**30.568**	**0.026**	**44.041**	**30.871**	**1929**	**0.559**	**12.779**	**38.692**

LE004	Treated Area (acres) -->	3.24	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		16	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	42.948	1.170	0.860	0.002	0.599	0.551	71	0.090	0.065	7.430
Offroad	Chainsaws	G	2		16	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.404	3.541	0.056	0.001	0.010	0.009	17	0.029	0.220	2.117
Offroad	Chainsaws Preempt	G	1		16	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.741	4.280	0.067	0.001	0.012	0.011	21	0.023	0.266	2.559
Offroad	Chippers/Stump Grinders-Trailer	G	1		16	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	665.383	17.981	11.508	0.026	8.628	7.938	1029	0.686	0.994	111.048
Offroad	Trimmers/Edgers/Brush Cutters	G	2		16	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.348	0.713	0.020	0.000	0.004	0.003	6	0.011	0.044	0.661
Onroad	Worker Trips-Paved Roads	G	4		16	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	20.255	1.901	2.035	0.032	1.497	0.445	2972	0.150	0.171	NA
Onroad	Worker Trips-Unpaved Roads	G	4		16	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.327	0.571	0.322	0.002	33.719	3.379	163	0.008	0.009	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.22	50%	2	55.291	7.952	4.784	NA	5.964	5.840	NA	0.286	2.771	NA	82.937	11.928	7.175	NA	8.946	8.760	NA	0.429	4.156	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	3.03	50%	2	490.255	77.586	44.978	NA	57.346	55.097	NA	NA	25.187	NA	735.383	116.379	67.466	NA	86.020	82.646	NA	NA	37.781	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**593.470**	**87.663**	**54.946**	**0.010**	**68.723**	**62.200**	**859**	**0.354**	**28.083**	**7.738**	**1569.355**	**158.824**	**95.892**	**0.073**	**143.385**	**104.480**	**5168**	**1.435**	**43.729**	**123.815**

LE006	Treated Area (acres) -->	12.18	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		61	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	163.740	4.461	3.278	0.008	2.284	2.101	272	0.344	0.249	28.328
Offroad	Chainsaws	G	2		61	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	24.415	13.499	0.212	0.003	0.038	0.035	66	0.109	0.839	8.071
Offroad	Chainsaws Preempt	G	1		61	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	29.511	16.316	0.256	0.003	0.046	0.043	80	0.088	1.014	9.756
Offroad	Chippers/Stump Grinders-Trailer	G	1		61	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	2536.774	68.552	43.875	0.099	32.895	30.263	3924	2.616	3.791	423.371
Offroad	Trimmers/Edgers/Brush Cutters	G	2		61	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	8.952	2.719	0.078	0.001	0.014	0.013	24	0.043	0.169	2.519
Onroad	Worker Trips-Paved Roads	G	4		61	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	77.223	7.247	7.758	0.123	5.707	1.696	11331	0.573	0.650	NA
Onroad	Worker Trips-Unpaved Roads	G	4		61	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	16.497	2.176	1.227	0.007	128.553	12.882	622	0.031	0.035	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.63	50%	6	40.040	5.759	3.464	NA	4.319	4.229	NA	0.207	2.006	NA	240.240	34.551	20.785	NA	25.914	25.374	NA	1.242	12.039	NA
Burn	Pine	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	11.55	50%	6	467.668	74.012	42.905	NA	54.704	52.559	NA	NA	24.027	NA	2806.011	444.071	257.432	NA	328.226	315.354	NA	NA	144.162	NA
Burn	Grass	acres->	0.00	50%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	6	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	6.222	1.379	24.824	0.033	5.096	1.864	3468	0.032	0.086	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	6	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.293	0.064	0.707	0.001	10.706	1.084	82	0.001	0.002	NA
Totals For Cutting/Skidding/Chipping/Trimming						**555.632**	**81.896**	**51.554**	**0.010**	**64.436**	**58.051**	**859**	**0.275**	**26.159**	**7.738**	**5909.877**	**595.035**	**360.432**	**0.279**	**539.479**	**390.710**	**19870**	**5.078**	**163.037**	**472.045**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 11.24

EBRPD - Miller/Knox Regional Shoreline

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

MK001	Treated Area (acres) -->	2.23	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		11	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	29.527	0.805	0.591	0.001	0.412	0.379	49	0.062	0.045	5.108
Offroad	Chainsaws	G	2		11	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1		11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders	D	1		11	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	7.550	1.948	23.551	0.033	0.730	0.672	3410	0.000	0.176	154.431
Offroad	Chippers/Stump Grinders-Trailer	G	1		11	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	457.451	12.362	7.912	0.018	5.932	5.457	708	0.472	0.684	76.346
Offroad	Fellers/Bunchers	D	1		11	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	16.680	5.189	49.981	0.097	1.587	1.460	8608	0.000	0.468	389.708
Offroad	Loaders, Skid Steer	D	1		11	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.647	1.519	6.694	0.010	0.461	0.424	750	0.000	0.137	34.509
Offroad	Skidders	D	2		11	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	80.363	11.424	90.548	0.157	5.031	4.628	13981	0.000	1.031	637.314
Offroad	Trimmers/Edgers/Brush Cutters	G	2		11	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	8		11	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	27.851	2.614	2.798	0.044	2.058	0.612	4087	0.207	0.234	NA
Onroad	Worker Trips-Unpaved Roads	G	8		11	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	5.950	0.785	0.442	0.003	46.363	4.646	224	0.011	0.013	NA
Burn	Eucalyptus/Acacia	acres->	0.26	50%	1	297.673	42.811	25.754	NA	32.109	31.440	NA	1.539	14.917	NA	297.673	42.811	25.754	NA	32.109	31.440	NA	1.539	14.917	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.86	50%	1	837.092	69.208	63.441	NA	80.743	80.743	NA	3.790	36.087	NA	837.092	69.208	63.441	NA	80.743	80.743	NA	3.790	36.087	NA
Burn	Scrub	acres->	1.12	50%	1	271.693	42.997	24.926	NA	31.781	30.534	NA	NA	13.959	NA	271.693	42.997	24.926	NA	31.781	30.534	NA	NA	13.959	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1466.031**	**159.122**	**134.977**	**0.039**	**152.956**	**144.872**	**3487**	**5.406**	**65.264**	**118.280**	**2050.900**	**197.769**	**300.992**	**0.371**	**209.858**	**161.502**	**32438**	**6.129**	**68.130**	**1301.085**

MK002	Treated Area (acres) -->	0.21	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.21	100%	1	102.051	16.150	9.363	NA	11.937	11.469	NA	NA	5.243	NA	102.051	16.150	9.363	NA	11.937	11.469	NA	NA	5.243	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**107.303**	**16.911**	**9.572**	**0.002**	**14.177**	**11.744**	**203**	**0.019**	**5.291**	**0.798**	**107.303**	**16.911**	**9.572**	**0.002**	**14.177**	**11.744**	**203**	**0.019**	**5.291**	**0.798**

MK003	Treated Area (acres) -->	1.01	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.16	100%	1	361.378	51.973	31.265	NA	38.980	38.168	NA	1.868	18.110	NA	361.378	51.973	31.265	NA	38.980	38.168	NA	1.868	18.110	NA
Burn	Oak/Bay	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.85	100%	1	415.293	65.723	38.100	NA	48.578	46.673	NA	NA	21.336	NA	415.293	65.723	38.100	NA	48.578	46.673	NA	NA	21.336	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**823.509**	**119.581**	**70.295**	**0.004**	**90.337**	**85.612**	**268**	**1.930**	**39.556**	**7.738**	**1010.861**	**127.120**	**74.012**	**0.020**	**101.454**	**88.696**	**1338**	**2.180**	**39.999**	**38.692**

MK004	Treated Area (acres) -->	1.68	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		8	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	21.474	0.585	0.430	0.001	0.300	0.276	36	0.045	0.033	3.715
Offroad	Chainsaws	G	2		8	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	3.202	1.770	0.028	0.000	0.005	0.005	9	0.014	0.110	1.059
Offroad	Chainsaws Preempt	G	1		8	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.870	2.140	0.034	0.000	0.006	0.006	10	0.011	0.133	1.279
Offroad	Chippers/Stump Grinders	D	1		8	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	5.491	1.417	17.128	0.024	0.531	0.489	2480	0.000	0.128	112.314
Offroad	Chippers/Stump Grinders-Trailer	G	1		8	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	332.692	8.990	5.754	0.013	4.314	3.969	515	0.343	0.497	55.524
Offroad	Fellers/Bunchers	D	1		8	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	12.131	3.774	36.350	0.070	1.154	1.062	6260	0.000	0.340	283.424
Offroad	Loaders, Skid Steer	D	1		8	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	4.834	1.105	4.868	0.007	0.335	0.308	545	0.000	0.100	25.097
Offroad	Skidders	D	2		8	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	58.445	8.309	65.853	0.114	3.659	3.366	10168	0.000	0.750	463.501
Offroad	Trimmers/Edgers/Brush Cutters	G	2		8	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.174	0.357	0.010	0.000	0.002	0.002	3	0.006	0.022	0.330
Onroad	Worker Trips-Paved Roads	G	8		8	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	20.255	1.901	2.035	0.032	1.497	0.445	2972	0.150	0.171	NA
Onroad	Worker Trips-Unpaved Roads	G	8		8	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	4.327	0.571	0.322	0.002	33.719	3.379	163	0.008	0.009	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	2	1.023	0.147	0.088	NA	0.110	0.108	NA	0.005	0.051	NA	2.045	0.294	0.177	NA	0.221	0.216	NA	0.011	0.102	NA
Burn	Pine	acres->	1.43	100%	2	1393.755	115.232	105.629	NA	134.437	134.437	NA	6.310	60.085	NA	2787.509	230.463	211.258	NA	268.874	268.874	NA	12.621	120.170	NA
Burn	Scrub	acres->	0.25	100%	2	61.048	9.661	5.601	NA	7.141	6.861	NA	NA	3.136	NA	122.096	19.323	11.202	NA	14.282	13.722	NA	NA	6.273	NA
Burn	Grass	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1514.312**	**128.905**	**127.920**	**0.033**	**147.378**	**143.069**	**2895**	**6.388**	**63.559**	**118.280**	**3379.546**	**280.997**	**355.449**	**0.265**	**328.898**	**296.116**	**23161**	**13.209**	**128.838**	**946.243**

MK005	Treated Area (acres) -->	6.10	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		31	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	83.212	2.267	1.666	0.004	1.161	1.068	138	0.175	0.127	14.396
Offroad	Chainsaws	G	2		31	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	12.407	6.860	0.108	0.001	0.020	0.018	34	0.056	0.426	4.102
Offroad	Chainsaws Preempt	G	1		31	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	14.997	8.292	0.130	0.002	0.024	0.022	41	0.045	0.515	4.958
Offroad	Chippers/Stump Grinders	D	1		31	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	21.277	5.489	66.371	0.094	2.058	1.893	9610	0.000	0.495	435.215
Offroad	Chippers/Stump Grinders-Trailer	G	1		31	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	1289.180	34.838	22.297	0.051	16.717	15.380	1994	1.330	1.927	215.156
Offroad	Fellers/Bunchers	D	1		31	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	47.007	14.623	140.856	0.273	4.471	4.113	24258	0.000	1.319	1098.269
Offroad	Skidders	D	2		31	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	226.476	32.196	255.182	0.443	14.177	13.043	39401	0.000	2.905	1796.066
Offroad	Trimmers/Edgers/Brush Cutters	G	2		31	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	4.549	1.382	0.039	0.001	0.007	0.007	12	0.022	0.086	1.280
Onroad	Worker Trips-Paved Roads	G	8		31	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	78.489	7.366	7.886	0.125	5.801	1.724	11517	0.583	0.661	NA
Onroad	Worker Trips-Unpaved Roads	G	8		31	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	16.768	2.212	1.247	0.007	130.660	13.093	632	0.032	0.036	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	100%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.42	100%	6	135.034	11.164	10.234	NA	13.025	13.025	NA	0.611	5.821	NA	810.204	66.985	61.403	NA	78.150	78.150	NA	3.668	34.928	NA
Burn	Scrub	acres->	5.69	100%	6	460.556	72.886	42.253	NA	53.872	51.760	NA	NA	23.662	NA	2763.334	437.317	253.517	NA	323.234	310.558	NA	NA	141.969	NA
Burn	Grass	acres->	0.00	100%	6	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**653.472**	**87.777**	**68.480**	**0.032**	**72.545**	**66.409**	**2827**	**0.684**	**29.757**	**115.143**	**5367.900**	**619.827**	**810.702**	**1.001**	**576.479**	**439.067**	**87636**	**5.909**	**185.395**	**3569.442**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION
EBRPD - Miller/Knox Regional Shoreline
NONE

CUMULATIVE ACTION
EBRPD - Miller/Knox Regional Shoreline
NONE

PROPOSED ACTION Treated Area (acres) --> 17.07

EBRPD - Redwood Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	3	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	4.797	1.277	7.591	0.008	0.669	0.615	650	0.000	0.115	29.843
Offroad	Loaders, Rubber Tired	D	1	3	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	3.820	0.893	5.535	0.006	0.483	0.444	542	0.000	0.081	24.844
Onroad	Dump Truck Trips-Paved Roads	D	1	3	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	1.214	0.268	6.613	0.009	1.301	0.444	932	0.009	0.023	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	3	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.131	0.029	0.352	0.000	5.352	0.541	40	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	3	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.658	0.145	3.402	0.005	0.652	0.223	475	0.004	0.012	NA
Onroad	Water Truck-Unpaved Roads	D	1	3	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.131	0.029	0.352	0.000	5.352	0.541	40	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4	3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Dust	Treated Area (acres) --> (acres)		0.25	3	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	7.500	0.750	NA	NA	NA	NA
Totals For Access Road Construction (Connected Actions RD001, 003, & 009)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**15.360**	**3.105**	**24.288**	**0.035**	**27.911**	**4.276**	**3268**	**0.043**	**0.266**	**54.686**

RD001	Treated Area (acres) -->	0.11	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	1		1	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.09	50%	1	85.239	7.047	6.460	NA	8.222	8.222	NA	0.386	3.675	NA	85.239	7.047	6.460	NA	8.222	8.222	NA	0.386	3.675	NA
Burn	Scrub	acres->	0.02	50%	1	4.731	0.749	0.434	NA	0.553	0.532	NA	NA	0.243	NA	4.731	0.749	0.434	NA	0.553	0.532	NA	NA	0.243	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**148.938**	**11.763**	**27.142**	**0.038**	**17.057**	**10.870**	**3419**	**0.464**	**4.206**	**115.143**	**148.938**	**11.763**	**27.142**	**0.038**	**17.057**	**10.870**	**3419**	**0.464**	**4.206**	**115.143**

RD002	Treated Area (acres) -->	2.51	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		13	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	34.895	0.951	0.699	0.002	0.487	0.448	58	0.073	0.053	6.037
Offroad	Chainsaws	G	2		13	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1		13	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.289	3.477	0.055	0.001	0.010	0.009	17	0.019	0.216	2.079
Offroad	Chippers/Stump Grinders	D	2		13	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	17.845	4.604	55.666	0.079	1.726	1.588	8060	0.000	0.415	365.019
Offroad	Fellers/Bunchers	D	1		13	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	19.713	6.132	59.069	0.114	1.875	1.725	10173	0.000	0.553	460.564
Offroad	Loaders, Skid Steer	D	1		13	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	7.855	1.795	7.911	0.011	0.545	0.501	886	0.000	0.162	40.783
Offroad	Skidders	D	2		13	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	94.974	13.502	107.012	0.186	5.945	5.470	16523	0.000	1.218	753.189
Offroad	Trimmers/Edgers/Brush Cutters	G	2		13	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	8		13	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	32.915	3.089	3.307	0.053	2.433	0.723	4830	0.244	0.277	NA
Onroad	Worker Trips-Unpaved Roads	G	8		13	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	7.032	0.927	0.523	0.003	54.793	5.490	265	0.013	0.015	NA
Burn	Eucalyptus/Acacia	acres->	2.51	50%	2	1947.467	280.085	168.489	NA	210.064	205.688	NA	10.066	97.592	NA	2921.201	420.128	252.733	NA	315.096	308.531	NA	15.098	146.388	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1966.140**	**283.244**	**190.767**	**0.040**	**217.915**	**207.407**	**3732**	**10.100**	**97.847**	**125.379**	**3151.458**	**458.422**	**493.418**	**0.458**	**386.871**	**325.233**	**41718**	**15.488**	**149.535**	**1629.929**

RD003	Treated Area (acres) -->	3.61	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		18	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	48.317	1.316	0.967	0.002	0.674	0.620	80	0.101	0.074	8.359
Offroad	Chainsaws	G	2		18	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	7.204	3.983	0.063	0.001	0.011	0.010	19	0.032	0.248	2.382
Offroad	Chainsaws Preempt	G	1		18	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	8.708	4.815	0.076	0.001	0.014	0.013	24	0.026	0.299	2.879
Offroad	Chippers/Stump Grinders-Trailer	G	1		18	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	748.556	20.228	12.947	0.029	9.707	8.930	1158	0.772	1.119	124.929
Offroad	Trimmers/Edgers/Brush Cutters	G	2		18	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.642	0.802	0.023	0.000	0.004	0.004	7	0.013	0.050	0.743
Onroad	Worker Trips-Paved Roads	G	4		18	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	22.787	2.138	2.289	0.036	1.684	0.500	3344	0.169	0.192	NA
Onroad	Worker Trips-Unpaved Roads	G	4		18	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.868	0.642	0.362	0.002	37.934	3.801	184	0.009	0.010	NA
Burn	Eucalyptus/Acacia	acres->	0.10	100%	4	56.029	8.058	4.847	NA	6.044	5.918	NA	0.290	2.808	NA	224.117	32.233	19.390	NA	24.174	23.671	NA	1.158	11.231	NA
Burn	Oak/Bay	acres->	0.31	100%	4	59.324	8.532	5.133	NA	6.399	6.266	NA	0.307	2.973	NA	237.296	34.128	20.530	NA	25.596	25.063	NA	1.226	11.891	NA
Burn	Pine	acres->	0.00	100%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	3.21	100%	4	389.496	61.640	35.734	NA	45.560	43.774	NA	NA	20.011	NA	1557.986	246.562	142.934	NA	182.241	175.095	NA	NA	80.043	NA
Burn	Grass	acres->	0.00	100%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**551.688**	**80.115**	**46.643**	**0.004**	**60.782**	**56.728**	**268**	**0.659**	**25.902**	**7.738**	**2862.481**	**346.848**	**199.581**	**0.072**	**282.039**	**237.707**	**4816**	**3.507**	**105.157**	**139.292**

RD004	Treated Area (acres) -->	7.95	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		40	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	107.371	2.925	2.149	0.005	1.498	1.378	179	0.225	0.163	18.576
Offroad	Chainsaws	G	2		40	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	16.010	8.852	0.139	0.002	0.025	0.023	43	0.072	0.550	5.293
Offroad	Chainsaws Preempt	G	1		40	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	19.351	10.699	0.168	0.002	0.030	0.028	52	0.057	0.665	6.397
Offroad	Chippers/Stump Grinders	D	2		40	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	54.907	14.166	171.280	0.243	5.310	4.885	24800	0.000	1.278	1123.137
Offroad	Fellers/Bunchers	D	1		40	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	60.654	18.869	181.750	0.352	5.769	5.308	31300	0.000	1.702	1417.121
Offroad	Loaders, Skid Steer	D	1		40	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	24.170	5.523	24.342	0.035	1.676	1.542	2726	0.000	0.498	125.486
Offroad	Skidders	D	2		40	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	292.227	41.544	329.267	0.572	18.293	16.830	50839	0.000	3.748	2317.505
Offroad	Trimmers/Edgers/Brush Cutters	G	2		40	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	5.870	1.783	0.051	0.001	0.009	0.008	16	0.028	0.111	1.652
Onroad	Worker Trips-Paved Roads	G	8		40	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	101.276	9.504	10.175	0.162	7.485	2.224	14861	0.752	0.853	NA
Onroad	Worker Trips-Unpaved Roads	G	8		40	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	21.636	2.854	1.609	0.009	168.594	16.894	816	0.041	0.047	NA
Burn	Eucalyptus/Acacia	acres->	0.62	50%	4	181.553	26.111	15.707	NA	19.583	19.175	NA	0.938	9.098	NA	726.212	104.444	62.830	NA	78.333	76.701	NA	3.753	36.392	NA
Burn	Oak/Bay	acres->	0.41	50%	4	39.596	5.695	3.426	NA	4.271	4.182	NA	0.205	1.984	NA	158.383	22.779	13.703	NA	17.084	16.728	NA	0.819	7.937	NA
Burn	Pine	acres->	5.99	50%	4	1458.651	120.597	110.547	NA	140.697	140.697	NA	6.604	62.883	NA	5834.604	482.389	442.189	NA	562.787	562.787	NA	26.417	251.531	NA
Burn	Scrub	acres->	0.92	50%	4	56.068	8.873	5.144	NA	6.558	6.301	NA	NA	2.881	NA	224.271	35.492	20.575	NA	26.234	25.205	NA	NA	11.522	NA
Burn	Grass	acres->	0.00	50%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	4.148	0.919	16.550	0.022	3.397	1.243	2312	0.021	0.057	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	4	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.195	0.043	0.471	0.001	7.137	0.723	54	0.001	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1754.540**	**164.434**	**157.103**	**0.040**	**178.960**	**172.075**	**3732**	**7.782**	**77.101**	**125.379**	**7651.286**	**762.783**	**1277.248**	**1.406**	**903.662**	**732.507**	**127999**	**32.186**	**317.057**	**5015.165**

RD005a	Treated Area (acres) -->	1.10	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mo	s																								
Offroad	Air Compressors	G	1		6	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	16.106	0.439	0.322	0.001	0.225	0.207	27	0.034	0.025	2.786
Offroad	Chainsaws	G	2		6	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.083	0.794
Offroad	Chainsaws Preempt	G	1		6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.100	0.960
Offroad	Chippers/Stump Grinders	D	2		6	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	8.236	2.125	25.692	0.037	0.797	0.733	3720	0.000	0.192	168.470
Offroad	Fellers/Bunchers	D	1		6	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	9.098	2.830	27.263	0.053	0.865	0.796	4695	0.000	0.255	212.568
Offroad	Loaders, Skid Steer	D	1		6	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	3.625	0.828	3.651	0.005	0.251	0.231	409	0.000	0.075	18.823
Offroad	Skidders	D	2		6	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	43.834	6.232	49.390	0.086	2.744	2.524	7626	0.000	0.562	347.626
Offroad	Trimmers/Edgers/Brush Cutters	G	2		6	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.017	0.248
Onroad	Worker Trips-Paved Roads	G	8		6	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	15.191	1.426	1.526	0.024	1.123	0.334	2229	0.113	0.128	NA
Onroad	Worker Trips-Unpaved Roads	G	8		6	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	3.245	0.428	0.241	0.001	25.289	2.534	122	0.006	0.007	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**18.673**	**3.158**	**22.278**	**0.040**	**7.851**	**1.719**	**3732**	**0.035**	**0.255**	**125.379**	**106.607**	**17.748**	**112.395**	**0.213**	**33.937**	**7.860**	**19436**	**0.182**	**1.457**	**752.275**

RD005b	Treated Area (acres) -->	0.46	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	2		2	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Fellers/Bunchers	D	1		2	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	3.033	0.943	9.088	0.018	0.288	0.265	1565	0.000	0.085	70.856
Offroad	Loaders, Skid Steer	D	1		2	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	1.208	0.276	1.217	0.002	0.084	0.077	136	0.000	0.025	6.274
Offroad	Skidders	D	2		2	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	14.611	2.077	16.463	0.029	0.915	0.841	2542	0.000	0.187	115.875
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	8		2	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	8		2	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.02	50%	1	6.090	0.876	0.527	NA	0.657	0.643	NA	0.031	0.305	NA	6.090	0.876	0.527	NA	0.657	0.643	NA	0.031	0.305	NA
Burn	Pine	acres->	0.25	50%	1	242.344	20.036	18.367	NA	23.376	23.376	NA	1.097	10.447	NA	242.344	20.036	18.367	NA	23.376	23.376	NA	1.097	10.447	NA
Burn	Scrub	acres->	0.20	50%	1	48.109	7.614	4.414	NA	5.627	5.407	NA	NA	2.472	NA	48.109	7.614	4.414	NA	5.627	5.407	NA	NA	2.472	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**315.215**	**31.684**	**45.586**	**0.040**	**37.511**	**31.145**	**3732**	**1.164**	**13.479**	**125.379**	**332.802**	**34.602**	**63.609**	**0.075**	**42.728**	**32.373**	**6873**	**1.193**	**13.720**	**250.758**

RD009	Treated Area (acres) -->	0.29	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	2		1	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Loaders, Skid Steer	D	1		1	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	5.747	0.827	0.497	NA	0.620	0.607	NA	0.030	0.288	NA	5.747	0.827	0.497	NA	0.620	0.607	NA	0.030	0.288	NA
Burn	Oak/Bay	acres->	0.25	50%	1	94.168	13.543	8.147	NA	10.157	9.946	NA	0.487	4.719	NA	94.168	13.543	8.147	NA	10.157	9.946	NA	0.487	4.719	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.04	50%	1	8.730	1.382	0.801	NA	1.021	0.981	NA	NA	0.449	NA	8.730	1.382	0.801	NA	1.021	0.981	NA	NA	0.449	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**127.318**	**18.910**	**31.724**	**0.040**	**19.649**	**13.253**	**3732**	**0.551**	**5.711**	**125.379**	**127.318**	**18.910**	**31.724**	**0.040**	**19.649**	**13.253**	**3732**	**0.551**	**5.711**	**125.379**

RD011	Treated Area (acres) -->	1.04	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Loaders, Skid Steer	D	1		5	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	3.021	0.690	3.043	0.004	0.210	0.193	341	0.000	0.062	15.686
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.43	100%	1	330.619	47.550	28.604	NA	35.662	34.919	NA	1.709	16.568	NA	330.619	47.550	28.604	NA	35.662	34.919	NA	1.709	16.568	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.61	100%	1	294.869	46.665	27.052	NA	34.492	33.139	NA	NA	15.149	NA	294.869	46.665	27.052	NA	34.492	33.139	NA	NA	15.149	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**643.075**	**97.133**	**73.680**	**0.035**	**75.371**	**69.286**	**3141**	**1.738**	**31.958**	**125.379**	**713.422**	**108.804**	**145.773**	**0.173**	**96.240**	**74.198**	**15704**	**1.856**	**32.919**	**626.896**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 42.47

EBRPD - Redwood Regional Park

RD001	Treated Area (acres) -->	31.53	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		158	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	424.114	11.556	8.490	0.020	5.916	5.443	706	0.890	0.646	73.375
Offroad	Chainsaws	G	2		158	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	63.238	34.964	0.549	0.007	0.100	0.092	171	0.283	2.173	20.906
Offroad	Chainsaws Preempt	G	1		158	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	76.438	42.262	0.664	0.009	0.120	0.111	207	0.227	2.627	25.270
Offroad	Chippers/Stump Grinders-Trailer	G	1		158	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	6570.661	177.561	113.642	0.258	85.202	78.386	10164	6.776	9.820	1096.599
Offroad	Trimmers/Edgers/Brush Cutters	G	2		158	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	23.187	7.042	0.201	0.003	0.036	0.034	63	0.111	0.438	6.525
Onroad	Worker Trips-Paved Roads	G	4		158	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	200.019	18.771	20.095	0.319	14.782	4.392	29350	1.485	1.684	NA
Onroad	Worker Trips-Unpaved Roads	G	4		158	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	42.731	5.636	3.177	0.018	332.973	33.365	1612	0.081	0.092	NA
Burn	Eucalyptus/Acacia	acres->	8.95	50%	16	651.615	93.715	56.376	NA	70.287	68.822	NA	3.368	32.654	NA	10425.841	1499.447	902.011	NA	1124.585	1101.156	NA	53.886	522.464	NA
Burn	Oak/Bay	acres->	0.22	50%	16	5.293	0.761	0.458	NA	0.571	0.559	NA	0.027	0.265	NA	84.694	12.181	7.327	NA	9.136	8.945	NA	0.438	4.244	NA
Burn	Pine	acres->	18.13	50%	16	1103.803	91.259	83.654	NA	106.469	106.469	NA	4.998	47.585	NA	17660.844	1460.149	1338.470	NA	1703.507	1703.507	NA	79.961	761.363	NA
Burn	Scrub	acres->	4.23	50%	16	64.238	10.166	5.893	NA	7.514	7.219	NA	NA	3.300	NA	1027.810	162.658	94.295	NA	120.226	115.511	NA	NA	52.805	NA
Burn	Grass	acres->	0.00	50%	16	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	16	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	16.591	3.677	66.198	0.089	13.588	4.972	9249	0.085	0.229	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	16	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.781	0.171	1.885	0.002	28.550	2.892	218	0.002	0.005	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**1872.873**	**198.027**	**151.566**	**0.010**	**190.254**	**184.332**	**859**	**8.461**	**83.930**	**7.738**	**36616.950**	**3436.073**	**2557.005**	**0.724**	**3438.721**	**3058.805**	**51738**	**144.225**	**1358.589**	**1222.675**

RD003	Treated Area (acres) -->	5.09	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		25	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	67.107	1.828	1.343	0.003	0.936	0.861	112	0.141	0.102	11.610
Offroad	Chainsaws	G	2		25	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	10.006	5.532	0.087	0.001	0.016	0.014	27	0.045	0.344	3.308
Offroad	Chainsaws Preempt	G	1		25	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	12.095	6.687	0.105	0.001	0.019	0.018	33	0.036	0.416	3.998
Offroad	Chippers/Stump Grinders	D	2		25	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	34.317	8.854	107.050	0.152	3.319	3.053	15500	0.000	0.799	701.960
Offroad	Fellers/Bunchers	D	1		25	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	37.909	11.793	113.594	0.220	3.606	3.317	19563	0.000	1.064	885.700
Offroad	Loaders, Skid Steer	D	1		25	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	15.106	3.452	15.214	0.022	1.048	0.964	1704	0.000	0.311	78.428
Offroad	Skidders	D	2		25	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	182.642	25.965	205.792	0.358	11.433	10.519	31775	0.000	2.343	1448.440
Offroad	Trimmers/Edgers/Brush Cutters	G	2		25	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.669	1.114	0.032	0.000	0.006	0.005	10	0.018	0.069	1.032
Onroad	Worker Trips-Paved Roads	G	8		25	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	63.297	5.940	6.359	0.101	4.678	1.390	9288	0.470	0.533	NA
Onroad	Worker Trips-Unpaved Roads	G	8		25	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	13.522	1.784	1.006	0.006	105.371	10.559	510	0.026	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	5	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	5.185	1.149	20.687	0.028	4.246	1.554	2890	0.027	0.071	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	5	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.244	0.053	0.589	0.001	8.922	0.904	68	0.001	0.002	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**18.673**	**3.158**	**22.278**	**0.040**	**7.851**	**1.719**	**3732**	**0.035**	**0.255**	**125.379**	**445.099**	**74.151**	**471.857**	**0.893**	**143.600**	**33.158**	**81478**	**0.762**	**6.083**	**3134.478**

RD004	Treated Area (acres) -->	0.39	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	2		2	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Fellers/Bunchers	D	1		2	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	3.033	0.943	9.088	0.018	0.288	0.265	1565	0.000	0.085	70.856
Offroad	Loaders, Skid Steer	D	1		2	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	1.208	0.276	1.217	0.002	0.084	0.077	136	0.000	0.025	6.274
Offroad	Mowers, Rear Engine Riding	G	1		2	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	4.020	0.064	0.046	0.000	0.003	0.003	7	0.007	0.004	0.689
Offroad	Skidders	D	2		2	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	14.611	2.077	16.463	0.029	0.915	0.841	2542	0.000	0.187	115.875
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	8		2	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	8		2	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**20.683**	**3.191**	**22.301**	**0.040**	**7.852**	**1.721**	**3736**	**0.038**	**0.257**	**125.724**	**40.280**	**6.141**	**40.348**	**0.075**	**13.071**	**2.950**	**6880**	**0.071**	**0.499**	**251.447**

RD008	Treated Area (acres) -->	2.74	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		14	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	37.580	1.024	0.752	0.002	0.524	0.482	63	0.079	0.057	6.502
Offroad	Chainsaws	G	2		14	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.603	3.098	0.049	0.001	0.009	0.008	15	0.025	0.193	1.852
Offroad	Chainsaws Preempt	G	1		14	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.773	3.745	0.059	0.001	0.011	0.010	18	0.020	0.233	2.239
Offroad	Chippers/Stump Grinders-Trailer	G	1		14	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	582.210	15.733	10.070	0.023	7.550	6.946	901	0.600	0.870	97.167
Offroad	Trimmers/Edgers/Brush Cutters	G	2		14	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.055	0.624	0.018	0.000	0.003	0.003	6	0.010	0.039	0.578
Onroad	Worker Trips-Paved Roads	G	4		14	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	17.723	1.663	1.781	0.028	1.310	0.389	2601	0.132	0.149	NA
Onroad	Worker Trips-Unpaved Roads	G	4		14	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.786	0.499	0.282	0.002	29.504	2.956	143	0.007	0.008	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.146	0.032	0.353	0.000	5.353	0.542	41	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**658.988**	**27.108**	**25.775**	**0.073**	**46.811**	**12.269**	**5521**	**0.889**	**1.593**	**108.338**

RD009	Treated Area (acres) -->	2.72	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		14	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	37.580	1.024	0.752	0.002	0.524	0.482	63	0.079	0.057	6.502
Offroad	Chainsaws	G	2		14	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.603	3.098	0.049	0.001	0.009	0.008	15	0.025	0.193	1.852
Offroad	Chainsaws Preempt	G	1		14	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.773	3.745	0.059	0.001	0.011	0.010	18	0.020	0.233	2.239
Offroad	Chippers/Stump Grinders	D	2		14	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	19.218	4.958	59.948	0.085	1.859	1.710	8680	0.000	0.447	393.098
Offroad	Fellers/Bunchers	D	1		14	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	21.229	6.604	63.613	0.123	2.019	1.858	10955	0.000	0.596	495.992
Offroad	Skidders	D	2		14	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	102.280	14.540	115.243	0.200	6.403	5.890	17794	0.000	1.312	811.127
Offroad	Trimmers/Edgers/Brush Cutters	G	2		14	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.055	0.624	0.018	0.000	0.003	0.003	6	0.010	0.039	0.578
Onroad	Worker Trips-Paved Roads	G	8		14	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	35.446	3.326	3.561	0.057	2.620	0.778	5201	0.263	0.298	NA
Onroad	Worker Trips-Unpaved Roads	G	8		14	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	7.573	0.999	0.563	0.003	59.008	5.913	286	0.014	0.016	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.146	0.032	0.353	0.000	5.353	0.542	41	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**241.013**	**39.640**	**256.571**	**0.489**	**80.356**	**18.127**	**44792**	**0.428**	**3.235**	**1711.388**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION Treated Area (acres) --> 3.55

EBRPD - Redwood Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	2	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	3.198	0.852	5.061	0.005	0.446	0.410	433	0.000	0.077	19.895
Offroad	Loaders, Rubber Tired	D	1	2	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	2.547	0.595	3.690	0.004	0.322	0.296	361	0.000	0.054	16.562
Onroad	Dump Truck Trips-Paved Roads	D	1	2	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	0.809	0.179	4.409	0.006	0.867	0.296	621	0.006	0.015	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	2	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.439	0.097	2.268	0.003	0.434	0.149	317	0.003	0.008	NA
Onroad	Water Truck-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4	2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Dust	Treated Area (acres) --> (acres)		0.25	2	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	5.000	0.500	NA	NA	NA	NA
Totals For Access Road Construction (RD006 & 007)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**10.240**	**2.070**	**16.192**	**0.023**	**18.607**	**2.850**	**2178**	**0.029**	**0.178**	**36.458**

RD006	Treated Area (acres) -->	0.47	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders-Trailer	G	1		2	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	83.173	2.248	1.439	0.003	1.079	0.992	129	0.086	0.124	13.881
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	4		2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4		2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**94.762**	**4.010**	**6.114**	**0.014**	**8.192**	**2.034**	**1127**	**0.130**	**0.236**	**15.477**

RD007	Treated Area (acres) -->	2.13	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		11	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	29.527	0.805	0.591	0.001	0.412	0.379	49	0.062	0.045	5.108
Offroad	Chainsaws	G	2		11	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1		11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders	D	2		11	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	15.100	3.896	47.102	0.067	1.460	1.343	6820	0.000	0.351	308.863
Offroad	Fellers/Bunchers	D	1		11	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	16.680	5.189	49.981	0.097	1.587	1.460	8608	0.000	0.468	389.708
Offroad	Loaders, Skid Steer	D	1		11	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.647	1.519	6.694	0.010	0.461	0.424	750	0.000	0.137	34.509
Offroad	Skidders	D	2		11	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	80.363	11.424	90.548	0.157	5.031	4.628	13981	0.000	1.031	637.314
Offroad	Trimmers/Edgers/Brush Cutters	G	2		11	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	8		11	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	27.851	2.614	2.798	0.044	2.058	0.612	4087	0.207	0.234	NA
Onroad	Worker Trips-Unpaved Roads	G	8		11	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	5.950	0.785	0.442	0.003	46.363	4.646	224	0.011	0.013	NA
Burn	Eucalyptus/Acacia	acres->	2.13	50%	1	2484.603	357.336	214.960	NA	268.002	262.419	NA	12.842	124.509	NA	2484.603	357.336	214.960	NA	268.002	262.419	NA	12.842	124.509	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2503.276**	**360.495**	**237.238**	**0.040**	**275.853**	**264.138**	**3732**	**12.877**	**124.764**	**125.379**	**2679.144**	**389.674**	**417.471**	**0.386**	**328.026**	**276.418**	**35141**	**13.170**	**127.168**	**1379.170**

RD010	Treated Area (acres) -->	0.95	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Loaders, Skid Steer	D	1		5	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	3.021	0.690	3.043	0.004	0.210	0.193	341	0.000	0.062	15.686
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	0.35	50%	1	409.772	58.934	35.452	NA	44.200	43.279	NA	2.118	20.535	NA	409.772	58.934	35.452	NA	44.200	43.279	NA	2.118	20.535	NA
Burn	Oak/Bay	acres->	0.03	50%	1	13.122	1.887	1.135	NA	1.415	1.386	NA	0.068	0.658	NA	13.122	1.887	1.135	NA	1.415	1.386	NA	0.068	0.658	NA
Burn	Pine	acres->	0.56	50%	1	550.004	45.473	41.683	NA	53.052	53.052	NA	2.490	23.711	NA	550.004	45.473	41.683	NA	53.052	53.052	NA	2.490	23.711	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**991.571**	**109.452**	**100.549**	**0.040**	**106.518**	**99.436**	**3732**	**4.711**	**45.158**	**125.379**	**1061.919**	**121.124**	**172.642**	**0.179**	**127.387**	**104.348**	**16296**	**4.828**	**46.120**	**626.896**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 17.40

EBRPD - Sibley Volcanic Regional Preserve

			No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																									
Offroad	Dozers (Crawler Tractors)	D	1		4	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	6.396	1.703	10.122	0.010	0.892	0.821	867	0.000	0.154	39.791
Offroad	Loaders, Rubber Tired	D	1		4	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	5.093	1.191	7.380	0.008	0.644	0.593	723	0.000	0.107	33.125
Onroad	Dump Truck Trips-Paved Roads	D	1		4	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	1.618	0.357	8.818	0.012	1.735	0.592	1243	0.011	0.031	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1		4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1		4	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.878	0.194	4.537	0.006	0.869	0.297	633	0.006	0.016	NA
Onroad	Water Truck-Unpaved Roads	D	1		4	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.174	0.039	0.470	0.001	7.136	0.721	54	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4		4	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	4		4	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Dust	Treated Area (acres) --> (acres)		0.25		4	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	10.000	1.000	NA	NA	NA	NA
Totals For Access Road Construction (Connected Action SR002a, 002b, 006, & 007)						**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**20.480**	**4.140**	**32.384**	**0.046**	**37.215**	**5.701**	**4357**	**0.058**	**0.355**	**72.915**

SR001	**Treated Area (acres) -->**	2.99	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		15	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	40.264	1.097	0.806	0.002	0.562	0.517	67	0.084	0.061	6.966
Offroad	Chainsaws	G	2		15	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.004	3.319	0.052	0.001	0.009	0.009	16	0.027	0.206	1.985
Offroad	Chainsaws Preempt	G	1		15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders-Trailer	G	1		15	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	623.797	16.857	10.789	0.024	8.089	7.442	965	0.643	0.932	104.108
Offroad	Loaders, Skid Steer	D	1		15	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	9.064	2.071	9.128	0.013	0.629	0.578	1022	0.000	0.187	47.057
Offroad	Trimmers/Edgers/Brush Cutters	G	2		15	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.201	0.668	0.019	0.000	0.003	0.003	6	0.011	0.042	0.619
Onroad	Worker Trips-Paved Roads	G	4		15	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	18.989	1.782	1.908	0.030	1.403	0.417	2786	0.141	0.160	NA
Onroad	Worker Trips-Unpaved Roads	G	4		15	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.057	0.535	0.302	0.002	31.611	3.168	153	0.008	0.009	NA
Burn	Eucalyptus/Acacia	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.21	75%	2	52.991	7.621	4.585	NA	5.716	5.597	NA	0.274	2.656	NA	119.230	17.148	10.315	NA	12.861	12.593	NA	0.616	5.975	NA
Burn	Pine	acres->	1.31	75%	2	851.106	70.367	64.503	NA	82.095	82.095	NA	3.853	36.691	NA	1914.989	158.326	145.132	NA	184.714	184.714	NA	8.670	82.556	NA
Burn	Scrub	acres->	0.73	75%	2	117.450	18.587	10.775	NA	13.738	13.200	NA	NA	6.034	NA	264.263	41.821	24.244	NA	30.912	29.699	NA	NA	13.577	NA
Burn	Grass	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1070.076**	**98.839**	**85.656**	**0.011**	**107.004**	**102.192**	**927**	**4.195**	**45.519**	**10.876**	**3011.201**	**247.878**	**207.014**	**0.079**	**273.438**	**239.641**	**5627**	**10.227**	**103.968**	**163.134**

SR003-PD	**Treated Area (acres) -->**	1.06	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**85.999**	**14.140**	**91.329**	**0.174**	**28.510**	**6.439**	**15955**	**0.152**	**1.154**	**611.210**

SR004	Treated Area (acres) -->	3.20	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		16	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	42.948	1.170	0.860	0.002	0.599	0.551	71	0.090	0.065	7.430
Offroad	Chainsaws	G	2		16	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.404	3.541	0.056	0.001	0.010	0.009	17	0.029	0.220	2.117
Offroad	Chainsaws Preempt	G	1		16	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.741	4.280	0.067	0.001	0.012	0.011	21	0.023	0.266	2.559
Offroad	Chippers/Stump Grinders-Trailer	G	1		16	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	665.383	17.981	11.508	0.026	8.628	7.938	1029	0.686	0.994	111.048
Offroad	Trimmers/Edgers/Brush Cutters	G	2		16	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.348	0.713	0.020	0.000	0.004	0.003	6	0.011	0.044	0.661
Onroad	Worker Trips-Paved Roads	G	4		16	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	20.255	1.901	2.035	0.032	1.497	0.445	2972	0.150	0.171	NA
Onroad	Worker Trips-Unpaved Roads	G	4		16	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.327	0.571	0.322	0.002	33.719	3.379	163	0.008	0.009	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.44	100%	3	111.960	16.102	9.686	NA	12.077	11.825	NA	0.579	5.611	NA	335.879	48.306	29.059	NA	36.230	35.475	NA	1.736	16.832	NA
Burn	Pine	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	2.77	100%	3	447.839	70.874	41.086	NA	52.385	50.331	NA	NA	23.008	NA	1343.518	212.621	123.259	NA	157.155	150.992	NA	NA	69.025	NA
Burn	Grass	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**606.637**	**88.861**	**51.702**	**0.004**	**67.241**	**62.927**	**268**	**0.641**	**28.729**	**7.738**	**2428.804**	**291.083**	**167.186**	**0.064**	**237.853**	**198.803**	**4281**	**2.734**	**87.627**	**123.815**

SR005	Treated Area (acres) -->	10.15	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		51	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	136.897	3.730	2.741	0.006	1.910	1.757	228	0.287	0.208	23.684
Offroad	Chainsaws	G	2		51	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	20.412	11.286	0.177	0.002	0.032	0.030	55	0.091	0.701	6.748
Offroad	Chainsaws Preempt	G	1		51	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	24.673	13.642	0.214	0.003	0.039	0.036	67	0.073	0.848	8.157
Offroad	Chippers/Stump Grinders	D	2		51	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	70.007	18.061	218.382	0.310	6.771	6.229	31620	0.000	1.630	1431.999
Offroad	Fellers/Bunchers	D	1		51	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	77.334	24.058	231.731	0.449	7.356	6.767	39908	0.000	2.171	1806.829
Offroad	Loaders, Skid Steer	D	1		51	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	30.816	7.041	31.036	0.045	2.138	1.967	3476	0.000	0.635	159.994
Offroad	Skidders	D	2		51	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	372.590	52.968	419.816	0.729	23.324	21.458	64820	0.000	4.779	2954.818
Offroad	Trimmers/Edgers/Brush Cutters	G	2		51	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	7.485	2.273	0.065	0.001	0.012	0.011	20	0.036	0.141	2.106
Onroad	Worker Trips-Paved Roads	G	8		51	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	129.126	12.118	12.973	0.206	9.543	2.836	18947	0.958	1.087	NA
Onroad	Worker Trips-Unpaved Roads	G	8		51	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	27.586	3.639	2.051	0.012	214.958	21.540	1040	0.052	0.059	NA
Burn	Eucalyptus/Acacia	acres->	0.96	50%	5	224.249	32.252	19.401	NA	24.189	23.685	NA	1.159	11.238	NA	1121.244	161.258	97.007	NA	120.943	118.424	NA	5.795	56.188	NA
Burn	Oak/Bay	acres->	0.55	50%	5	42.121	6.058	3.644	NA	4.543	4.449	NA	0.218	2.111	NA	210.605	30.289	18.221	NA	22.717	22.244	NA	1.089	10.554	NA
Burn	Pine	acres->	7.00	50%	5	1364.187	112.787	103.388	NA	131.585	131.585	NA	6.176	58.810	NA	6820.937	563.936	516.941	NA	657.925	657.925	NA	30.882	294.052	NA
Burn	Scrub	acres->	1.63	50%	5	79.215	12.536	7.267	NA	9.266	8.903	NA	NA	4.070	NA	396.077	62.682	36.337	NA	46.330	44.513	NA	NA	20.349	NA
Burn	Grass	acres->	0.00	50%	5	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	5	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	5.185	1.149	20.687	0.028	4.246	1.554	2890	0.027	0.071	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	5	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.244	0.053	0.589	0.001	8.922	0.904	68	0.001	0.002	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1728.445**	**166.791**	**155.980**	**0.040**	**177.434**	**170.341**	**3732**	**7.588**	**76.484**	**125.379**	**9451.219**	**968.182**	**1608.967**	**1.792**	**1127.164**	**908.192**	**163139**	**39.292**	**393.477**	**6394.336**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 56.39

EBRPD - Sibley Volcanic Regional Preserve

SR002a	Treated Area (acres) -->	17.12	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		86	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	230.847	6.290	4.621	0.011	3.220	2.963	384	0.484	0.351	39.938
Offroad	Chainsaws	G	2		86	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	34.421	19.031	0.299	0.004	0.054	0.050	93	0.154	1.183	11.379
Offroad	Chainsaws Preempt	G	1		86	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	41.606	23.003	0.361	0.005	0.065	0.060	112	0.123	1.430	13.754
Offroad	Chippers/Stump Grinders	D	2		86	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	118.051	30.457	368.251	0.523	11.417	10.504	53319	0.000	2.748	2414.744
Offroad	Fellers/Bunchers	D	1		86	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	130.406	40.568	390.763	0.757	12.404	11.412	67296	0.000	3.660	3046.810
Offroad	Skidders	D	2		86	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	628.289	89.319	707.924	1.230	39.330	36.184	109305	0.000	8.059	4982.635
Offroad	Trimmers/Edgers/Brush Cutters	G	2		86	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	12.621	3.833	0.110	0.001	0.020	0.018	34	0.060	0.238	3.552
Onroad	Worker Trips-Paved Roads	G	8		86	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	217.742	20.434	21.876	0.348	16.092	4.781	31950	1.616	1.833	NA
Onroad	Worker Trips-Unpaved Roads	G	8		86	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	46.517	6.136	3.459	0.020	362.477	36.322	1754	0.088	0.100	NA
Burn	Eucalyptus/Acacia	acres->	11.61	50%	9	1590.828	228.793	137.633	NA	171.595	168.020	NA	8.222	79.720	NA	13522.042	1944.743	1169.885	NA	1458.557	1428.171	NA	69.889	677.621	NA
Burn	Oak/Bay	acres->	0.52	50%	9	23.393	3.364	2.024	NA	2.523	2.471	NA	0.121	1.172	NA	198.843	28.598	17.203	NA	21.448	21.001	NA	1.028	9.965	NA
Burn	Pine	acres->	0.00	50%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	4.99	50%	9	142.668	22.578	13.089	NA	16.688	16.034	NA	NA	7.330	NA	1212.679	191.915	111.255	NA	141.850	136.287	NA	NA	62.303	NA
Burn	Grass	acres->	0.00	50%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	9	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.814	1.953	35.168	0.047	7.219	2.641	4914	0.045	0.121	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	9	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.415	0.091	1.001	0.001	15.167	1.536	116	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1774.958**	**257.756**	**174.416**	**0.039**	**198.616**	**188.206**	**3664**	**8.378**	**88.465**	**122.242**	**16403.293**	**2406.369**	**2832.176**	**2.947**	**2089.322**	**1691.930**	**269277**	**73.490**	**769.616**	**10512.812**

SR002a	Treated Area (acres) -->	17.12	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		48	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	128.845	3.511	2.579	0.006	1.797	1.654	214	0.270	0.196	22.291
Offroad	Chainsaws	G	2		48	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	19.212	10.622	0.167	0.002	0.030	0.028	52	0.086	0.660	6.351
Offroad	Chainsaws Preempt	G	1		48	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	23.222	12.839	0.202	0.003	0.037	0.034	63	0.069	0.798	7.677
Offroad	Chippers/Stump Grinders	D	2		48	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	65.889	16.999	205.536	0.292	6.372	5.863	29760	0.000	1.534	1347.764
Offroad	Fellers/Bunchers	D	1		48	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	72.785	22.642	218.100	0.423	6.923	6.369	37560	0.000	2.043	1700.545
Offroad	Skidders	D	2		48	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	350.673	49.852	395.120	0.686	21.952	20.196	61007	0.000	4.498	2781.006
Offroad	Trimmers/Edgers/Brush Cutters	G	2		48	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	7.044	2.139	0.061	0.001	0.011	0.010	19	0.034	0.133	1.982
Onroad	Worker Trips-Paved Roads	G	8		48	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	121.531	11.405	12.210	0.194	8.982	2.669	17833	0.902	1.023	NA
Onroad	Worker Trips-Unpaved Roads	G	8		48	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	25.963	3.425	1.931	0.011	202.313	20.273	979	0.049	0.056	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	10	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	10.369	2.298	41.374	0.056	8.493	3.107	5781	0.053	0.143	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	10	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.488	0.107	1.178	0.001	17.843	1.807	136	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**826.020**	**135.839**	**878.457**	**1.675**	**274.753**	**62.009**	**153404**	**1.465**	**11.088**	**5867.616**

SR003	Treated Area (acres) -->	0.63	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders-Trailer	G	1		3	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	124.759	3.371	2.158	0.005	1.618	1.488	193	0.129	0.186	20.822
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	4		3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4		3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**141.599**	**5.895**	**7.043**	**0.018**	**10.972**	**2.805**	**1394**	**0.193**	**0.347**	**23.215**

SR005	Treated Area (acres) -->	6.92	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		35	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	93.949	2.560	1.881	0.004	1.311	1.206	156	0.197	0.143	16.254
Offroad	Chainsaws	G	2		35	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	14.008	7.745	0.122	0.002	0.022	0.020	38	0.063	0.481	4.631
Offroad	Chainsaws Preempt	G	1		35	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	16.932	9.362	0.147	0.002	0.027	0.025	46	0.050	0.582	5.598
Offroad	Chippers/Stump Grinders	D	2		35	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	48.044	12.395	149.870	0.213	4.646	4.275	21700	0.000	1.118	982.745
Offroad	Fellers/Bunchers	D	1		35	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	53.072	16.510	159.031	0.308	5.048	4.644	27388	0.000	1.490	1239.981
Offroad	Loaders, Skid Steer	D	1		35	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	21.148	4.832	21.299	0.031	1.467	1.350	2385	0.000	0.436	109.800
Offroad	Skidders	D	2		35	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	255.699	36.351	288.109	0.501	16.007	14.726	44484	0.000	3.280	2027.817
Offroad	Trimmers/Edgers/Brush Cutters	G	2		35	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	5.136	1.560	0.045	0.001	0.008	0.007	14	0.025	0.097	1.445
Onroad	Worker Trips-Paved Roads	G	8		35	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	88.616	8.316	8.903	0.141	6.549	1.946	13003	0.658	0.746	NA
Onroad	Worker Trips-Unpaved Roads	G	8		35	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	18.931	2.497	1.408	0.008	147.520	14.782	714	0.036	0.041	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.26	50%	4	28.893	4.155	2.500	NA	3.117	3.052	NA	0.149	1.448	NA	101.126	14.544	8.749	NA	10.908	10.681	NA	0.523	5.068	NA
Burn	Pine	acres->	2.00	50%	4	555.461	45.924	42.097	NA	53.578	53.578	NA	2.515	23.946	NA	1944.112	160.734	147.339	NA	187.523	187.523	NA	8.802	83.811	NA
Burn	Scrub	acres->	4.66	50%	4	323.728	51.232	29.700	NA	37.867	36.382	NA	NA	16.632	NA	1133.047	179.312	103.949	NA	132.535	127.338	NA	NA	58.212	NA
Burn	Grass	acres->	0.00	50%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.629	0.804	14.481	0.019	2.972	1.088	2023	0.019	0.050	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	4	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.171	0.037	0.412	0.000	6.245	0.633	48	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**926.754**	**104.470**	**96.575**	**0.040**	**102.413**	**94.731**	**3732**	**2.699**	**42.281**	**125.379**	**3797.623**	**457.560**	**905.744**	**1.230**	**522.788**	**370.242**	**111999**	**10.372**	**155.556**	**4388.270**

SR006	Treated Area (acres) -->	18.99	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		95	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	255.005	6.948	5.105	0.012	3.557	3.273	424	0.535	0.388	44.118
Offroad	Chainsaws	G	2		95	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	38.023	21.023	0.330	0.004	0.060	0.055	103	0.170	1.307	12.570
Offroad	Chainsaws Preempt	G	1		95	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	45.960	25.411	0.399	0.005	0.072	0.067	124	0.136	1.579	15.194
Offroad	Chippers/Stump Grinders	D	2		95	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	130.405	33.644	406.789	0.578	12.612	11.603	58899	0.000	3.036	2667.449
Offroad	Fellers/Bunchers	D	1		95	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	144.054	44.813	431.656	0.836	13.702	12.606	74338	0.000	4.043	3365.662
Offroad	Loaders, Skid Steer	D	1		95	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	57.403	13.116	57.811	0.084	3.982	3.663	6474	0.000	1.183	298.028
Offroad	Skidders	D	2		95	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	694.040	98.666	782.009	1.359	43.446	39.971	120744	0.000	8.902	5504.073
Offroad	Trimmers/Edgers/Brush Cutters	G	2		95	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	13.942	4.234	0.121	0.002	0.022	0.020	38	0.067	0.263	3.923
Onroad	Worker Trips-Paved Roads	G	8		95	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	240.529	22.572	24.165	0.384	17.776	5.282	35294	1.785	2.025	NA
Onroad	Worker Trips-Unpaved Roads	G	8		95	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	51.385	6.778	3.821	0.022	400.411	40.123	1938	0.097	0.111	NA
Burn	Eucalyptus/Acacia	acres->	18.99	50%	10	2327.996	334.813	201.411	NA	251.110	245.878	NA	12.032	116.661	NA	22115.966	3180.723	1913.404	NA	2385.542	2335.844	NA	114.307	1108.283	NA
Burn	Oak/Bay	acres->	0.00	50%	10	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	10	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	10	0.086	0.014	0.008	NA	0.010	0.010	NA	NA	0.004	NA	0.818	0.130	0.075	NA	0.096	0.092	NA	NA	0.042	NA
Burn	Grass	acres->	0.00	50%	10	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	10	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	9.851	2.183	39.305	0.053	8.068	2.952	5492	0.051	0.136	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	10	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.464	0.101	1.119	0.001	16.951	1.717	129	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2346.755**	**337.985**	**223.697**	**0.040**	**258.971**	**247.607**	**3732**	**12.067**	**116.921**	**125.379**	**23797.845**	**3460.342**	**3666.111**	**3.340**	**2906.298**	**2457.266**	**303997**	**117.150**	**1131.302**	**11911.018**

SR007	Treated Area (acres) -->	3.17	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		16	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	42.948	1.170	0.860	0.002	0.599	0.551	71	0.090	0.065	7.430
Offroad	Chainsaws	G	2		16	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.404	3.541	0.056	0.001	0.010	0.009	17	0.029	0.220	2.117
Offroad	Chainsaws Preempt	G	1		16	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.741	4.280	0.067	0.001	0.012	0.011	21	0.023	0.266	2.559
Offroad	Chippers/Stump Grinders	D	2		16	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	21.963	5.666	68.512	0.097	2.124	1.954	9920	0.000	0.511	449.255
Offroad	Fellers/Bunchers	D	1		16	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	24.262	7.547	72.700	0.141	2.308	2.123	12520	0.000	0.681	566.848
Offroad	Skidders	D	2		16	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	116.891	16.617	131.707	0.229	7.317	6.732	20336	0.000	1.499	927.002
Offroad	Trimmers/Edgers/Brush Cutters	G	2		16	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.348	0.713	0.020	0.000	0.004	0.003	6	0.011	0.044	0.661
Onroad	Worker Trips-Paved Roads	G	8		16	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	40.510	3.802	4.070	0.065	2.994	0.890	5944	0.301	0.341	NA
Onroad	Worker Trips-Unpaved Roads	G	8		16	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	8.654	1.142	0.644	0.004	67.438	6.758	326	0.016	0.019	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.146	0.032	0.353	0.000	5.353	0.542	41	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**18.068**	**3.020**	**21.670**	**0.039**	**7.809**	**1.681**	**3664**	**0.035**	**0.243**	**122.242**	**274.978**	**45.199**	**291.401**	**0.556**	**90.707**	**20.506**	**50937**	**0.486**	**3.691**	**1955.872**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION
EBRPD - Sibley Volcanic Regional Preserve
NONE

PROPOSED ACTION Treated Area (acres) --> 1.45

EBRPD - Sobrante Ridge Regional Preserve

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

SO001	**Treated Area (acres) -->**	1.45	**No. of Units or No. of Trips**	**% Burned or % Removed**	**Total No. of Days**	**Emission Rates (lbs/day), based on 8 hrs/day CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal/day) Fuel**	**Activity Total Emission (lbs) CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal) Fuel**
Activity	**Equipment Type**	**Fuel**																							
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.029	3.251
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders-Trailer	G	1		7	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	291.105	7.867	5.035	0.011	3.775	3.473	450	0.300	0.435	48.584
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	4		7	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	8.862	0.832	0.890	0.014	0.655	0.195	1300	0.066	0.075	NA
Onroad	Worker Trips-Unpaved Roads	G	4		7	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.893	0.250	0.141	0.001	14.752	1.478	71	0.004	0.004	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.17	50%	1	64.291	9.246	5.562	NA	6.935	6.790	NA	0.332	3.222	NA	64.291	9.246	5.562	NA	6.935	6.790	NA	0.332	3.222	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Chaparral	acres->	0.56	50%	1	305.609	88.021	28.167	NA	33.096	32.392	NA	NA	14.576	NA	305.609	88.021	28.167	NA	33.096	32.392	NA	NA	14.576	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**417.824**	**99.393**	**38.913**	**0.010**	**45.444**	**40.445**	**859**	**0.400**	**17.923**	**7.738**	**698.851**	**110.701**	**44.489**	**0.034**	**62.119**	**45.071**	**2464**	**0.774**	**18.587**	**54.169**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION
EBRPD - Sobrante Ridge Regional Preserve
NONE

CUMULATIVE ACTION Treated Area (acres) --> 0.44

EBRPD - Sobrante Ridge Regional Preserve

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0	0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0	0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction					**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

SO002	**Treated Area (acres) -->**	0.44	**No. of Units or No. of Trips**	**% Burned or % Removed**	**Total No. of Days**	**Emission Rates (lbs/day), based on 8 hrs/day CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal/day) Fuel**	**Activity Total Emission (lbs) CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**(gal) Fuel**
Activity	**Equipment Type**	**Fuel**																							
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders-Trailer	G	1		2	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	83.173	2.248	1.439	0.003	1.079	0.992	129	0.086	0.124	13.881
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	4		2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4		2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.44	50%	1	169.015	24.308	14.623	NA	18.231	17.851	NA	0.874	8.470	NA	169.015	24.308	14.623	NA	18.231	17.851	NA	0.874	8.470	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**216.938**	**26.433**	**19.807**	**0.010**	**23.644**	**19.113**	**859**	**0.941**	**8.595**	**7.738**	**263.776**	**28.318**	**20.736**	**0.014**	**26.423**	**19.885**	**1127**	**1.004**	**8.706**	**15.477**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION
EBRPD - Temescal Regional Recreational Area
NONE

CONNECTED ACTION
EBRPD - Temescal Regional Recreational Area
NONE

CUMULATIVE ACTION Treated Area (acres) --> 0.031
EBRPD - Temescal Regional Recreational Area

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	% Burned or % Removed	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																									
Offroad	Dozers (Crawler Tractors)	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Offroad	Loaders, Rubber Tired	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	0.000
Onroad	Dump Truck Trips-Paved Roads	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Water Truck-Unpaved Roads	D	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Worker Trips-Unpaved Roads	G	0		0	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Dust	Treated Area (acres) --> (acres)		0		0	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA	NA	NA	NA	NA	0.000	0.000	NA	NA	NA	NA
Totals For Access Road Construction						**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**	**0**	**0.000**	**0.000**	**0.000**

TM001	**Treated Area (acres) -->**	0.03	No. of Units or No. of Trips	% Burned or % Removed	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Activity	Equipment Type	Fuel																							
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Mowers, Rear Engine Riding	G	1		1	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**49.934**	**2.157**	**5.207**	**0.010**	**5.414**	**1.264**	**863**	**0.071**	**0.127**	**8.083**	**49.934**	**2.157**	**5.207**	**0.010**	**5.414**	**1.264**	**863**	**0.071**	**0.127**	**8.083**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 45.34

EBRPD - Tilden Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	1	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948
Offroad	Loaders, Rubber Tired	D	1	1	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281
Onroad	Dump Truck Trips-Paved Roads	D	1	1	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	1	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA
Onroad	Water Truck-Paved Roads	D	1	1	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA
Onroad	Water Truck-Unpaved Roads	D	1	1	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA
Onroad	Worker Trips-Paved Roads	G	4	1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4	1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Dust	Treated Area (acres) --> (acres)		0.25	1	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA
Totals For Access Road Construction (TI008a)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**

TI006	Treated Area (acres) --> 3.47		No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		17	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	45.632	1.243	0.914	0.002	0.637	0.586	76	0.096	0.069	7.895
Offroad	Chainsaws	G	2		17	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.804	3.762	0.059	0.001	0.011	0.010	18	0.030	0.234	2.249
Offroad	Chainsaws Preempt	G	1		17	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	8.224	4.547	0.071	0.001	0.013	0.012	22	0.024	0.283	2.719
Offroad	Chippers/Stump Grinders-Trailer	G	1		17	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	706.970	19.105	12.227	0.028	9.167	8.434	1094	0.729	1.057	117.989
Offroad	Trimmers/Edgers/Brush Cutters	G	2		17	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.495	0.758	0.022	0.000	0.004	0.004	7	0.012	0.047	0.702
Onroad	Worker Trips-Paved Roads	G	4		17	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	21.521	2.020	2.162	0.034	1.591	0.473	3158	0.160	0.181	NA
Onroad	Worker Trips-Unpaved Roads	G	4		17	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.598	0.606	0.342	0.002	35.826	3.590	173	0.009	0.010	NA
Burn	Eucalyptus/Acacia	acres->	3.57	100%	3	2771.319	398.572	239.766	NA	298.929	292.701	NA	14.324	138.877	NA	8313.958	1195.715	719.297	NA	896.786	878.103	NA	42.971	416.632	NA
Burn	Oak/Bay	acres->	0.00	100%	3	0.100	0.014	0.009	NA	0.011	0.011	NA	0.001	0.005	NA	0.300	0.043	0.026	NA	0.032	0.032	NA	0.002	0.015	NA
Burn	Pine	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	100%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2818.257**	**400.471**	**240.704**	**0.004**	**301.719**	**293.483**	**268**	**14.387**	**138.993**	**7.738**	**9110.503**	**1227.799**	**735.121**	**0.068**	**944.067**	**891.243**	**4548**	**44.033**	**418.528**	**131.554**

TI012	Treated Area (acres) --> 13.00		No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		65	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	174.477	4.754	3.493	0.008	2.434	2.239	290	0.366	0.266	30.186
Offroad	Chainsaws	G	2		65	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	26.016	14.384	0.226	0.003	0.041	0.038	70	0.117	0.894	8.601
Offroad	Chainsaws Preempt	G	1		65	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	31.446	17.386	0.273	0.004	0.049	0.046	85	0.093	1.081	10.396
Offroad	Chippers/Stump Grinders	D	2		65	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	89.225	23.019	278.329	0.396	8.629	7.939	40299	0.000	2.077	1825.097
Offroad	Fellers/Bunchers	D	1		65	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	98.563	30.662	295.344	0.572	9.375	8.625	50863	0.000	2.767	2302.821
Offroad	Loaders, Skid Steer	D	1		65	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	39.276	8.974	39.555	0.057	2.724	2.506	4430	0.000	0.810	203.914
Offroad	Skidders	D	2		65	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	474.870	67.508	535.059	0.930	29.726	27.348	82614	0.000	6.091	3765.945
Offroad	Trimmers/Edgers/Brush Cutters	G	2		65	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	9.539	2.897	0.083	0.001	0.015	0.014	26	0.046	0.180	2.684
Onroad	Worker Trips-Paved Roads	G	8		65	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	164.573	15.444	16.534	0.263	12.163	3.614	24148	1.222	1.386	NA
Onroad	Worker Trips-Unpaved Roads	G	8		65	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	35.158	4.637	2.614	0.015	273.966	27.452	1326	0.067	0.076	NA
Burn	Eucalyptus/Acacia	acres->	0.33	50%	7	59.130	8.504	5.116	NA	6.378	6.245	NA	0.306	2.963	NA	384.347	55.277	33.252	NA	41.458	40.594	NA	1.987	19.261	NA
Burn	Oak/Bay	acres->	0.81	50%	7	47.381	6.814	4.099	NA	5.111	5.004	NA	0.245	2.374	NA	307.979	44.294	26.645	NA	33.220	32.528	NA	1.592	15.434	NA
Burn	Pine	acres->	6.74	50%	7	1010.092	83.512	76.552	NA	97.430	97.430	NA	4.573	43.545	NA	6565.599	542.825	497.590	NA	633.296	633.296	NA	29.726	283.045	NA
Burn	Scrub	acres->	5.12	50%	7	191.355	30.283	17.555	NA	22.383	21.505	NA	NA	9.831	NA	1243.806	196.841	114.111	NA	145.491	139.786	NA	NA	63.902	NA
Burn	Grass	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	7	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	6.740	1.494	26.893	0.036	5.520	2.020	3757	0.035	0.093	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	7	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.317	0.069	0.766	0.001	11.598	1.175	88	0.001	0.002	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1326.631**	**132.272**	**125.601**	**0.040**	**139.153**	**131.905**	**3732**	**5.159**	**58.969**	**125.379**	**9651.930**	**1030.466**	**1870.767**	**2.285**	**1209.706**	**929.219**	**207998**	**35.250**	**397.362**	**8149.644**

TI012-Griz	Treated Area (acres) -->	6.51	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		33	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	88.581	2.414	1.773	0.004	1.236	1.137	147	0.186	0.135	15.325
Offroad	Chainsaws	G	2		33	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	13.208	7.303	0.115	0.001	0.021	0.019	36	0.059	0.454	4.366
Offroad	Chainsaws Preempt	G	1		33	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	15.965	8.827	0.139	0.002	0.025	0.023	43	0.047	0.549	5.278
Offroad	Chippers/Stump Grinders	D	2		33	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	45.299	11.687	141.306	0.201	4.381	4.030	20460	0.000	1.054	926.588
Offroad	Fellers/Bunchers	D	1		33	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	50.040	15.567	149.944	0.291	4.760	4.379	25823	0.000	1.405	1169.125
Offroad	Loaders, Skid Steer	D	1		33	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	19.940	4.556	20.082	0.029	1.383	1.272	2249	0.000	0.411	103.526
Offroad	Skidders	D	2		33	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	241.088	34.273	271.645	0.472	15.092	13.885	41943	0.000	3.092	1911.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		33	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	4.843	1.471	0.042	0.001	0.008	0.007	13	0.023	0.091	1.363
Onroad	Worker Trips-Paved Roads	G	8		33	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	83.552	7.841	8.394	0.133	6.175	1.835	12260	0.620	0.703	NA
Onroad	Worker Trips-Unpaved Roads	G	8		33	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	17.850	2.354	1.327	0.008	139.090	13.937	673	0.034	0.038	NA
Burn	Eucalyptus/Acacia	acres->	4.08	50%	4	1357.027	195.168	117.406	NA	146.376	143.326	NA	7.014	68.004	NA	4749.595	683.088	410.920	NA	512.316	501.643	NA	24.548	238.013	NA
Burn	Oak/Bay	acres->	0.00	50%	4	0.055	0.008	0.005	NA	0.006	0.006	NA	0.000	0.003	NA	0.191	0.028	0.017	NA	0.021	0.020	NA	0.001	0.010	NA
Burn	Pine	acres->	0.09	50%	4	24.214	2.002	1.835	NA	2.336	2.336	NA	0.110	1.044	NA	84.749	7.007	6.423	NA	8.175	8.175	NA	0.384	3.654	NA
Burn	Scrub	acres->	2.34	50%	4	162.417	25.704	14.901	NA	18.998	18.253	NA	NA	8.344	NA	568.458	89.962	52.152	NA	66.494	63.886	NA	NA	29.205	NA
Burn	Grass	acres->	0.00	50%	4	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	4	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.629	0.804	14.481	0.019	2.972	1.088	2023	0.019	0.050	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	4	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.171	0.037	0.412	0.000	6.245	0.633	48	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1562.385**	**226.040**	**156.425**	**0.040**	**175.567**	**165.641**	**3732**	**7.159**	**77.650**	**125.379**	**5987.158**	**877.218**	**1079.172**	**1.161**	**768.393**	**615.968**	**105717**	**25.922**	**278.866**	**4137.511**

TI013-Griz	Treated Area (acres) -->	3.89	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		19	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	51.001	1.390	1.021	0.002	0.711	0.655	85	0.107	0.078	8.824
Offroad	Chainsaws	G	2		19	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	7.605	4.205	0.066	0.001	0.012	0.011	21	0.034	0.261	2.514
Offroad	Chainsaws Preempt	G	1		19	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	9.192	5.082	0.080	0.001	0.014	0.013	25	0.027	0.316	3.039
Offroad	Chippers/Stump Grinders	D	2		19	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	26.081	6.729	81.358	0.116	2.522	2.321	11780	0.000	0.607	533.490
Offroad	Fellers/Bunchers	D	1		19	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	28.811	8.963	86.331	0.167	2.740	2.521	14868	0.000	0.809	673.132
Offroad	Loaders, Skid Steer	D	1		19	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	11.481	2.623	11.562	0.017	0.796	0.733	1295	0.000	0.237	59.606
Offroad	Skidders	D	2		19	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	138.808	19.733	156.402	0.272	8.689	7.994	24149	0.000	1.780	1100.815
Offroad	Trimmers/Edgers/Brush Cutters	G	2		19	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.788	0.847	0.024	0.000	0.004	0.004	8	0.013	0.053	0.785
Onroad	Worker Trips-Paved Roads	G	8		19	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	48.106	4.514	4.833	0.077	3.555	1.056	7059	0.357	0.405	NA
Onroad	Worker Trips-Unpaved Roads	G	8		19	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	10.277	1.356	0.764	0.004	80.082	8.025	388	0.019	0.022	NA
Burn	Eucalyptus/Acacia	acres->	0.72	50%	2	422.154	60.714	36.523	NA	45.536	44.587	NA	2.182	21.155	NA	844.309	121.429	73.047	NA	91.072	89.174	NA	4.364	42.310	NA
Burn	Oak/Bay	acres->	0.37	50%	2	70.370	10.121	6.088	NA	7.590	7.432	NA	0.364	3.526	NA	140.740	20.241	12.176	NA	15.181	14.865	NA	0.727	7.053	NA
Burn	Pine	acres->	0.45	50%	2	220.696	18.247	16.726	NA	21.288	21.288	NA	0.999	9.514	NA	441.392	36.493	33.452	NA	42.575	42.575	NA	1.998	19.029	NA
Burn	Scrub	acres->	2.34	50%	2	284.389	45.007	26.091	NA	33.266	31.961	NA	NA	14.611	NA	568.779	90.013	52.182	NA	66.531	63.922	NA	NA	29.222	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1016.282**	**137.246**	**107.707**	**0.040**	**115.530**	**106.988**	**3732**	**3.580**	**49.062**	**125.379**	**2331.540**	**324.098**	**521.809**	**0.669**	**319.754**	**234.852**	**60859**	**7.659**	**102.210**	**2382.204**

TI014-Griz	Treated Area (acres) -->	2.68	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		13	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	34.895	0.951	0.699	0.002	0.487	0.448	58	0.073	0.053	6.037
Offroad	Chainsaws	G	2		13	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1		13	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.289	3.477	0.055	0.001	0.010	0.009	17	0.019	0.216	2.079
Offroad	Chippers/Stump Grinders	D	2		13	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	17.845	4.604	55.666	0.079	1.726	1.588	8060	0.000	0.415	365.019
Offroad	Fellers/Bunchers	D	1		13	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	19.713	6.132	59.069	0.114	1.875	1.725	10173	0.000	0.553	460.564
Offroad	Loaders, Skid Steer	D	1		13	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	7.855	1.795	7.911	0.011	0.545	0.501	886	0.000	0.162	40.783
Offroad	Skidders	D	2		13	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	94.974	13.502	107.012	0.186	5.945	5.470	16523	0.000	1.218	753.189
Offroad	Trimmers/Edgers/Brush Cutters	G	2		13	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	8		13	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	32.915	3.089	3.307	0.053	2.433	0.723	4830	0.244	0.277	NA
Onroad	Worker Trips-Unpaved Roads	G	8		13	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	7.032	0.927	0.523	0.003	54.793	5.490	265	0.013	0.015	NA
Burn	Eucalyptus/Acacia	acres->	2.48	50%	2	1926.398	277.055	166.666	NA	207.791	203.462	NA	9.957	96.536	NA	2889.597	415.583	249.999	NA	311.687	305.193	NA	14.935	144.805	NA
Burn	Oak/Bay	acres->	0.00	50%	2	0.880	0.127	0.076	NA	0.095	0.093	NA	0.005	0.044	NA	1.321	0.190	0.114	NA	0.142	0.139	NA	0.007	0.066	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.20	50%	2	31.953	5.057	2.931	NA	3.738	3.591	NA	NA	1.642	NA	47.929	7.585	4.397	NA	5.606	5.387	NA	NA	2.462	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1977.904**	**285.397**	**191.952**	**0.040**	**219.475**	**208.866**	**3732**	**9.996**	**98.477**	**125.379**	**3168.561**	**461.531**	**493.068**	**0.455**	**387.894**	**327.175**	**41422**	**15.329**	**150.473**	**1629.929**

TI015	Treated Area (acres) -->	9.89	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		49	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	131.529	3.584	2.633	0.006	1.835	1.688	219	0.276	0.200	22.756
Offroad	Chainsaws	G	2		49	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	19.612	10.843	0.170	0.002	0.031	0.028	53	0.088	0.674	6.483
Offroad	Chainsaws Preempt	G	1		49	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	23.705	13.107	0.206	0.003	0.037	0.034	64	0.070	0.815	7.837
Offroad	Chippers/Stump Grinders	D	2		49	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	67.262	17.353	209.818	0.298	6.505	5.985	30380	0.000	1.566	1375.842
Offroad	Fellers/Bunchers	D	1		49	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	74.301	23.114	222.644	0.431	7.067	6.502	38343	0.000	2.086	1735.973
Offroad	Loaders, Skid Steer	D	1		49	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	29.608	6.765	29.819	0.043	2.054	1.889	3339	0.000	0.610	153.720
Offroad	Skidders	D	2		49	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	357.979	50.891	403.352	0.701	22.409	20.616	62278	0.000	4.592	2838.943
Offroad	Trimmers/Edgers/Brush Cutters	G	2		49	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	7.191	2.184	0.062	0.001	0.011	0.010	19	0.034	0.136	2.024
Onroad	Worker Trips-Paved Roads	G	8		49	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	124.063	11.643	12.464	0.198	9.169	2.724	18204	0.921	1.045	NA
Onroad	Worker Trips-Unpaved Roads	G	8		49	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	26.504	3.496	1.971	0.011	206.528	20.695	1000	0.050	0.057	NA
Burn	Eucalyptus/Acacia	acres->	0.01	25%	3	2.329	0.335	0.202	NA	0.251	0.246	NA	0.012	0.117	NA	5.823	0.838	0.504	NA	0.628	0.615	NA	0.030	0.292	NA
Burn	Oak/Bay	acres->	0.83	25%	3	63.467	9.128	5.491	NA	6.846	6.703	NA	0.328	3.180	NA	158.668	22.820	13.727	NA	17.115	16.758	NA	0.820	7.951	NA
Burn	Pine	acres->	1.87	25%	3	363.623	30.063	27.558	NA	35.074	35.074	NA	1.646	15.676	NA	909.057	75.158	68.895	NA	87.685	87.685	NA	4.116	39.190	NA
Burn	Scrub	acres->	7.18	25%	3	348.830	55.205	32.003	NA	40.804	39.203	NA	NA	17.922	NA	872.076	138.012	80.007	NA	102.009	98.009	NA	NA	44.804	NA
Burn	Grass	acres->	0.00	25%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	75%	8	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	7.777	1.724	31.030	0.042	6.370	2.330	4336	0.040	0.107	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	75%	8	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.366	0.080	0.883	0.001	13.383	1.356	102	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**796.922**	**97.889**	**87.532**	**0.040**	**90.825**	**82.946**	**3732**	**2.021**	**37.150**	**125.379**	**2815.520**	**381.610**	**1078.186**	**1.737**	**482.835**	**266.925**	**158337**	**6.447**	**104.126**	**6143.578**

TI015-Griz	Treated Area (acres) -->	2.68	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		13	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	34.895	0.951	0.699	0.002	0.487	0.448	58	0.073	0.053	6.037
Offroad	Chainsaws	G	2		13	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	5.203	2.877	0.045	0.001	0.008	0.008	14	0.023	0.179	1.720
Offroad	Chainsaws Preempt	G	1		13	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	6.289	3.477	0.055	0.001	0.010	0.009	17	0.019	0.216	2.079
Offroad	Chippers/Stump Grinders	D	2		13	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	17.845	4.604	55.666	0.079	1.726	1.588	8060	0.000	0.415	365.019
Offroad	Fellers/Bunchers	D	1		13	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	19.713	6.132	59.069	0.114	1.875	1.725	10173	0.000	0.553	460.564
Offroad	Loaders, Skid Steer	D	1		13	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	7.855	1.795	7.911	0.011	0.545	0.501	886	0.000	0.162	40.783
Offroad	Skidders	D	2		13	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	94.974	13.502	107.012	0.186	5.945	5.470	16523	0.000	1.218	753.189
Offroad	Trimmers/Edgers/Brush Cutters	G	2		13	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.908	0.579	0.017	0.000	0.003	0.003	5	0.009	0.036	0.537
Onroad	Worker Trips-Paved Roads	G	8		13	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	32.915	3.089	3.307	0.053	2.433	0.723	4830	0.244	0.277	NA
Onroad	Worker Trips-Unpaved Roads	G	8		13	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	7.032	0.927	0.523	0.003	54.793	5.490	265	0.013	0.015	NA
Burn	Eucalyptus/Acacia	acres->	2.64	50%	2	2049.850	294.810	177.347	NA	221.107	216.501	NA	10.595	102.723	NA	3074.775	442.215	266.020	NA	331.661	324.751	NA	15.892	154.084	NA
Burn	Oak/Bay	acres->	0.04	50%	2	9.309	1.339	0.805	NA	1.004	0.983	NA	0.048	0.466	NA	13.964	2.008	1.208	NA	1.506	1.475	NA	0.072	0.700	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.555	0.345	6.206	0.008	1.274	0.466	867	0.008	0.021	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.073	0.016	0.177	0.000	2.677	0.271	20	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2077.831**	**299.307**	**200.430**	**0.040**	**229.962**	**219.204**	**3732**	**10.678**	**103.444**	**125.379**	**3318.995**	**482.517**	**507.913**	**0.458**	**404.942**	**342.928**	**41718**	**16.354**	**157.931**	**1629.929**

TI016-Griz	Treated Area (acres) -->	0.25	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	2		1	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Loaders, Skid Steer	D	1		1	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.25	50%	1	296.677	42.668	25.668	NA	32.001	31.334	NA	1.533	14.867	NA	296.677	42.668	25.668	NA	32.001	31.334	NA	1.533	14.867	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**315.349**	**45.827**	**47.946**	**0.040**	**39.852**	**33.054**	**3732**	**1.568**	**15.122**	**125.379**	**315.349**	**45.827**	**47.946**	**0.040**	**39.852**	**33.054**	**3732**	**1.568**	**15.122**	**125.379**

TI022	Treated Area (acres) -->	2.98	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		15	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	40.264	1.097	0.806	0.002	0.562	0.517	67	0.084	0.061	6.966
Offroad	Chainsaws	G	2		15	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	6.004	3.319	0.052	0.001	0.009	0.009	16	0.027	0.206	1.985
Offroad	Chainsaws Preempt	G	1		15	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	7.257	4.012	0.063	0.001	0.011	0.011	20	0.022	0.249	2.399
Offroad	Chippers/Stump Grinders	D	2		15	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	20.590	5.312	64.230	0.091	1.991	1.832	9300	0.000	0.479	421.176
Offroad	Fellers/Bunchers	D	1		15	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	22.745	7.076	68.156	0.132	2.163	1.990	11738	0.000	0.638	531.420
Offroad	Loaders, Skid Steer	D	1		15	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	9.064	2.071	9.128	0.013	0.629	0.578	1022	0.000	0.187	47.057
Offroad	Mowers, Rear Engine Riding	G	1		15	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	30.152	0.482	0.345	0.001	0.023	0.022	51	0.050	0.027	5.169
Offroad	Skidders	D	2		15	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	109.585	15.579	123.475	0.215	6.860	6.311	19065	0.000	1.406	869.064
Offroad	Trimmers/Edgers/Brush Cutters	G	2		15	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.201	0.668	0.019	0.000	0.003	0.003	6	0.011	0.042	0.619
Onroad	Worker Trips-Paved Roads	G	8		15	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	37.978	3.564	3.816	0.061	2.807	0.834	5573	0.282	0.320	NA
Onroad	Worker Trips-Unpaved Roads	G	8		15	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	8.113	1.070	0.603	0.003	63.223	6.335	306	0.015	0.017	NA
Burn	Eucalyptus/Acacia	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	1.21	75%	2	785.658	64.956	59.543	NA	75.782	75.782	NA	3.557	33.870	NA	1767.731	146.151	133.972	NA	170.509	170.509	NA	8.004	76.207	NA
Burn	Scrub	acres->	1.77	75%	2	286.741	45.379	26.307	NA	33.541	32.226	NA	NA	14.732	NA	645.168	102.102	59.190	NA	75.467	72.507	NA	NA	33.146	NA
Burn	Grass	acres->	0.00	75%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	25%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	25%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1093.082**	**113.525**	**108.151**	**0.040**	**117.175**	**109.728**	**3736**	**3.595**	**48.858**	**125.724**	**2707.939**	**292.745**	**468.110**	**0.526**	**326.892**	**261.950**	**47754**	**8.500**	**113.001**	**1885.856**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 51.81

EBRPD - Tilden Regional Park

TI006	Treated Area (acres) -->	1.10	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.83	100%	1	1928.728	277.390	166.867	NA	208.043	203.708	NA	9.969	96.653	NA	1928.728	277.390	166.867	NA	208.043	203.708	NA	9.969	96.653	NA
Burn	Oak/Bay	acres->	0.27	100%	1	204.865	29.464	17.724	NA	22.098	21.637	NA	1.059	10.266	NA	204.865	29.464	17.724	NA	22.098	21.637	NA	1.059	10.266	NA
Burn	Pine	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	100%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2180.430**	**308.738**	**185.521**	**0.004**	**232.920**	**226.117**	**268**	**11.090**	**107.030**	**7.738**	**2367.782**	**316.277**	**189.238**	**0.020**	**244.037**	**229.201**	**1338**	**11.339**	**107.472**	**38.692**

TI008a	Treated Area (acres) -->	14.10	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		70	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	187.898	5.120	3.761	0.009	2.621	2.411	313	0.394	0.286	32.508
Offroad	Chainsaws	G	2		70	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	28.017	15.490	0.243	0.003	0.044	0.041	76	0.126	0.963	9.262
Offroad	Chainsaws Preempt	G	1		70	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	33.865	18.724	0.294	0.004	0.053	0.049	92	0.101	1.164	11.195
Offroad	Chippers/Stump Grinders	D	2		70	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	96.088	24.790	299.739	0.426	9.293	8.550	43399	0.000	2.237	1965.489
Offroad	Fellers/Bunchers	D	1		70	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	106.145	33.020	318.063	0.616	10.096	9.289	54776	0.000	2.979	2479.961
Offroad	Loaders, Skid Steer	D	1		70	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	42.297	9.664	42.598	0.062	2.934	2.699	4770	0.000	0.872	219.600
Offroad	Skidders	D	2		70	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	511.398	72.701	576.217	1.001	32.013	29.452	88969	0.000	6.560	4055.633
Offroad	Trimmers/Edgers/Brush Cutters	G	2		70	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	10.273	3.120	0.089	0.001	0.016	0.015	28	0.049	0.194	2.891
Onroad	Worker Trips-Paved Roads	G	8		70	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	177.232	16.632	17.806	0.283	13.098	3.892	26006	1.316	1.492	NA
Onroad	Worker Trips-Unpaved Roads	G	8		70	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	37.863	4.994	2.815	0.016	295.040	29.564	1428	0.072	0.081	NA
Burn	Eucalyptus/Acacia	acres->	14.10	50%	7	2345.205	337.288	202.900	NA	252.966	247.696	NA	12.121	117.524	NA	16416.433	2361.015	1420.298	NA	1770.761	1733.870	NA	84.849	822.666	NA
Burn	Oak/Bay	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	7	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	7	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	7.258	1.609	28.962	0.039	5.945	2.175	4046	0.037	0.100	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	7	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.342	0.075	0.825	0.001	12.490	1.265	95	0.001	0.002	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2363.877**	**340.446**	**225.178**	**0.040**	**260.817**	**249.415**	**3732**	**12.156**	**117.779**	**125.379**	**17655.109**	**2566.954**	**2711.711**	**2.461**	**2154.405**	**1823.272**	**223998**	**86.944**	**839.597**	**8776.539**

TI008b	Treated Area (acres) -->	0.13	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**

TI009	Treated Area (acres) -->	3.70	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		18	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	48.317	1.316	0.967	0.002	0.674	0.620	80	0.101	0.074	8.359
Offroad	Chainsaws	G	2		18	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	7.204	3.983	0.063	0.001	0.011	0.010	19	0.032	0.248	2.382
Offroad	Chainsaws Preempt	G	1		18	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	8.708	4.815	0.076	0.001	0.014	0.013	24	0.026	0.299	2.879
Offroad	Chippers/Stump Grinders-Trailer	G	1		18	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	748.556	20.228	12.947	0.029	9.707	8.930	1158	0.772	1.119	124.929
Offroad	Trimmers/Edgers/Brush Cutters	G	2		18	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	2.642	0.802	0.023	0.000	0.004	0.004	7	0.013	0.050	0.743
Onroad	Worker Trips-Paved Roads	G	4		18	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	22.787	2.138	2.289	0.036	1.684	0.500	3344	0.169	0.192	NA
Onroad	Worker Trips-Unpaved Roads	G	4		18	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	4.868	0.642	0.362	0.002	37.934	3.801	184	0.009	0.010	NA
Burn	Eucalyptus/Acacia	acres->	0.20	50%	2	115.962	16.678	10.033	NA	12.508	12.248	NA	0.599	5.811	NA	231.925	33.355	20.065	NA	25.017	24.495	NA	1.199	11.622	NA
Burn	Oak/Bay	acres->	0.73	50%	2	139.530	20.067	12.072	NA	15.050	14.737	NA	0.721	6.992	NA	279.059	40.134	24.143	NA	30.101	29.474	NA	1.442	13.984	NA
Burn	Pine	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	2.77	50%	2	336.248	53.214	30.848	NA	39.332	37.789	NA	NA	17.275	NA	672.496	106.427	61.697	NA	78.663	75.579	NA	NA	34.550	NA
Burn	Grass	acres->	0.00	50%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**639.663**	**92.084**	**58.137**	**0.010**	**72.303**	**66.036**	**859**	**1.388**	**30.204**	**7.738**	**2028.733**	**214.323**	**131.142**	**0.084**	**189.076**	**144.409**	**5999**	**3.774**	**62.177**	**139.292**

TI010	Treated Area (acres) -->	1.32	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.029	3.251
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders-Trailer	G	1		7	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	291.105	7.867	5.035	0.011	3.775	3.473	450	0.300	0.435	48.584
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	4		7	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	8.862	0.832	0.890	0.014	0.655	0.195	1300	0.066	0.075	NA
Onroad	Worker Trips-Unpaved Roads	G	4		7	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.893	0.250	0.141	0.001	14.752	1.478	71	0.004	0.004	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**328.951**	**13.434**	**10.760**	**0.034**	**22.089**	**5.889**	**2464**	**0.442**	**0.789**	**54.169**

TI011	Treated Area (acres) -->	1.21	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		6	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	16.106	0.439	0.322	0.001	0.225	0.207	27	0.034	0.025	2.786
Offroad	Chainsaws	G	2		6	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.083	0.794
Offroad	Chainsaws Preempt	G	1		6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.100	0.960
Offroad	Chippers/Stump Grinders-Trailer	G	1		6	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	249.519	6.743	4.316	0.010	3.236	2.977	386	0.257	0.373	41.643
Offroad	Trimmers/Edgers/Brush Cutters	G	2		6	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.017	0.248
Onroad	Worker Trips-Paved Roads	G	4		6	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	4		6	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.003	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**47.924**	**2.125**	**5.184**	**0.010**	**5.413**	**1.262**	**859**	**0.068**	**0.125**	**7.738**	**282.113**	**11.549**	**9.831**	**0.030**	**19.309**	**5.118**	**2197**	**0.380**	**0.678**	**46.431**

TI012	Treated Area (acres) -->	17.44	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		87	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	233.531	6.363	4.675	0.011	3.258	2.997	389	0.490	0.356	40.403
Offroad	Chainsaws	G	2		87	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	34.821	19.252	0.302	0.004	0.055	0.050	94	0.156	1.197	11.511
Offroad	Chainsaws Preempt	G	1		87	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	42.089	23.271	0.365	0.005	0.066	0.061	114	0.125	1.446	13.914
Offroad	Chippers/Stump Grinders	D	2		87	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	119.424	30.811	372.533	0.529	11.550	10.626	53939	0.000	2.780	2442.822
Offroad	Fellers/Bunchers	D	1		87	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	131.923	41.039	395.306	0.766	12.548	11.544	68078	0.000	3.703	3082.238
Offroad	Loaders, Skid Steer	D	1		87	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	52.569	12.011	52.943	0.077	3.646	3.355	5929	0.000	1.084	272.931
Offroad	Skidders	D	2		87	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	635.595	90.357	716.156	1.244	39.788	36.605	110576	0.000	8.153	5040.573
Offroad	Trimmers/Edgers/Brush Cutters	G	2		87	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	12.768	3.877	0.111	0.001	0.020	0.018	35	0.061	0.241	3.593
Onroad	Worker Trips-Paved Roads	G	8		87	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	220.274	20.672	22.130	0.352	16.279	4.837	32322	1.635	1.855	NA
Onroad	Worker Trips-Unpaved Roads	G	8		87	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	47.058	6.207	3.499	0.020	366.692	36.744	1775	0.089	0.101	NA
Burn	Eucalyptus/Acacia	acres->	13.57	50%	9	1859.331	267.409	160.863	NA	200.557	196.379	NA	9.610	93.175	NA	15804.314	2272.980	1367.340	NA	1704.735	1669.220	NA	81.685	791.991	NA
Burn	Oak/Bay	acres->	0.09	50%	9	3.924	0.564	0.340	NA	0.423	0.414	NA	0.020	0.197	NA	33.358	4.798	2.886	NA	3.598	3.523	NA	0.172	1.672	NA
Burn	Pine	acres->	0.00	50%	9	0.359	0.030	0.027	NA	0.035	0.035	NA	0.002	0.015	NA	3.048	0.252	0.231	NA	0.294	0.294	NA	0.014	0.131	NA
Burn	Scrub	acres->	3.78	50%	9	108.173	17.119	9.924	NA	12.653	12.157	NA	NA	5.558	NA	919.475	145.513	84.355	NA	107.553	103.335	NA	NA	47.239	NA
Burn	Grass	acres->	0.00	50%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	9	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.814	1.953	35.168	0.047	7.219	2.641	4914	0.045	0.121	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	9	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.415	0.091	1.001	0.001	15.167	1.536	116	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1990.460**	**288.281**	**193.433**	**0.040**	**221.519**	**210.704**	**3732**	**9.667**	**99.200**	**125.379**	**18299.475**	**2679.448**	**3059.003**	**3.057**	**2292.469**	**1887.387**	**278279**	**84.474**	**862.073**	**10907.985**

TI014	Treated Area (acres) -->	0.72	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		4	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	10.737	0.293	0.215	0.001	0.150	0.138	18	0.023	0.016	1.858
Offroad	Chainsaws	G	2		4	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.601	0.885	0.014	0.000	0.003	0.002	4	0.007	0.055	0.529
Offroad	Chainsaws Preempt	G	1		4	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.935	1.070	0.017	0.000	0.003	0.003	5	0.006	0.067	0.640
Offroad	Chippers/Stump Grinders	D	2		4	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	5.491	1.417	17.128	0.024	0.531	0.489	2480	0.000	0.128	112.314
Offroad	Fellers/Bunchers	D	1		4	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	6.065	1.887	18.175	0.035	0.577	0.531	3130	0.000	0.170	141.712
Offroad	Loaders, Skid Steer	D	1		4	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	2.417	0.552	2.434	0.004	0.168	0.154	273	0.000	0.050	12.549
Offroad	Skidders	D	1		4	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	14.611	2.077	16.463	0.029	0.915	0.841	2542	0.000	0.187	115.875
Offroad	Trimmers/Edgers/Brush Cutters	G	2		4	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.587	0.178	0.005	0.000	0.001	0.001	2	0.003	0.011	0.165
Onroad	Worker Trips-Paved Roads	G	8		4	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	10.128	0.950	1.017	0.016	0.748	0.222	1486	0.075	0.085	NA
Onroad	Worker Trips-Unpaved Roads	G	8		4	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.164	0.285	0.161	0.001	16.859	1.689	82	0.004	0.005	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**15.020**	**2.639**	**18.163**	**0.033**	**7.622**	**1.509**	**3097**	**0.035**	**0.208**	**96.410**	**56.822**	**9.835**	**59.885**	**0.115**	**22.588**	**4.562**	**10613**	**0.123**	**0.789**	**385.641**

TI015	Treated Area (acres) -->	2.12	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		11	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	29.527	0.805	0.591	0.001	0.412	0.379	49	0.062	0.045	5.108
Offroad	Chainsaws	G	2		11	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1		11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders	D	2		11	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	15.100	3.896	47.102	0.067	1.460	1.343	6820	0.000	0.351	308.863
Offroad	Fellers/Bunchers	D	1		11	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	16.680	5.189	49.981	0.097	1.587	1.460	8608	0.000	0.468	389.708
Offroad	Loaders, Skid Steer	D	1		11	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.647	1.519	6.694	0.010	0.461	0.424	750	0.000	0.137	34.509
Offroad	Skidders	D	1		11	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	40.181	5.712	45.274	0.079	2.515	2.314	6990	0.000	0.515	318.657
Offroad	Trimmers/Edgers/Brush Cutters	G	2		11	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	8		11	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	27.851	2.614	2.798	0.044	2.058	0.612	4087	0.207	0.234	NA
Onroad	Worker Trips-Unpaved Roads	G	8		11	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	5.950	0.785	0.442	0.003	46.363	4.646	224	0.011	0.013	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	100%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**15.020**	**2.639**	**18.163**	**0.033**	**7.622**	**1.509**	**3097**	**0.035**	**0.208**	**96.410**	**155.445**	**26.866**	**161.492**	**0.313**	**60.142**	**12.177**	**28742**	**0.334**	**2.158**	**1060.514**

TI018	Treated Area (acres) -->	0.61	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	2		3	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	4.118	1.062	12.846	0.018	0.398	0.366	1860	0.000	0.096	84.235
Offroad	Fellers/Bunchers	D	1		3	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	4.549	1.415	13.631	0.026	0.433	0.398	2348	0.000	0.128	106.284
Offroad	Skidders	D	1		3	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	10.959	1.558	12.348	0.021	0.686	0.631	1906	0.000	0.141	86.906
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	8		3	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	8		3	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.61	50%	1	707.333	101.729	61.196	NA	76.297	74.707	NA	3.656	35.446	NA	707.333	101.729	61.196	NA	76.297	74.707	NA	3.656	35.446	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**721.748**	**104.230**	**78.750**	**0.032**	**83.877**	**76.178**	**3029**	**3.691**	**35.642**	**93.273**	**748.408**	**108.751**	**105.348**	**0.085**	**93.770**	**78.136**	**7903**	**3.749**	**36.004**	**279.820**

TI019	Treated Area (acres) -->	1.02	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Skidders	D	1		5	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	18.264	2.596	20.579	0.036	1.143	1.052	3177	0.000	0.234	144.844
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	1.02	50%	1	1187.088	170.727	102.703	NA	128.045	125.378	NA	6.136	59.488	NA	1187.088	170.727	102.703	NA	128.045	125.378	NA	6.136	59.488	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1201.503**	**173.228**	**120.257**	**0.032**	**135.626**	**126.848**	**3029**	**6.170**	**59.683**	**93.273**	**1254.822**	**182.271**	**173.453**	**0.138**	**155.413**	**130.765**	**12777**	**6.288**	**60.408**	**466.366**

TI020	Treated Area (acres) -->	5.90	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		29	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	77.844	2.121	1.558	0.004	1.086	0.999	130	0.163	0.119	13.468
Offroad	Chainsaws	G	2		29	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	11.607	6.417	0.101	0.001	0.018	0.017	31	0.052	0.399	3.837
Offroad	Chainsaws Preempt	G	1		29	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	14.030	7.757	0.122	0.002	0.022	0.020	38	0.042	0.482	4.638
Offroad	Chippers/Stump Grinders	D	2		29	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	39.808	10.270	124.178	0.176	3.850	3.542	17980	0.000	0.927	814.274
Offroad	Fellers/Bunchers	D	1		29	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	43.974	13.680	131.769	0.255	4.183	3.848	22693	0.000	1.234	1027.413
Offroad	Skidders	D	1		29	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	105.932	15.060	119.359	0.207	6.631	6.101	18429	0.000	1.359	840.095
Offroad	Trimmers/Edgers/Brush Cutters	G	2		29	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	4.256	1.292	0.037	0.000	0.007	0.006	12	0.020	0.080	1.198
Onroad	Worker Trips-Paved Roads	G	8		29	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	73.425	6.891	7.377	0.117	5.426	1.612	10774	0.545	0.618	NA
Onroad	Worker Trips-Unpaved Roads	G	8		29	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	15.686	2.069	1.166	0.007	122.231	12.248	592	0.030	0.034	NA
Burn	Eucalyptus/Acacia	acres->	5.64	50%	3	2190.878	315.093	189.548	NA	236.319	231.396	NA	11.324	109.790	NA	6572.634	945.278	568.644	NA	708.958	694.188	NA	33.971	329.370	NA
Burn	Oak/Bay	acres->	0.21	50%	3	26.673	3.836	2.308	NA	2.877	2.817	NA	0.138	1.337	NA	80.018	11.508	6.923	NA	8.631	8.451	NA	0.414	4.010	NA
Burn	Pine	acres->	0.05	50%	3	14.774	1.221	1.120	NA	1.425	1.425	NA	0.067	0.637	NA	44.323	3.664	3.359	NA	4.275	4.275	NA	0.201	1.911	NA
Burn	Scrub	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.146	0.032	0.353	0.000	5.353	0.542	41	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2246.740**	**322.651**	**210.529**	**0.032**	**248.202**	**237.109**	**3029**	**11.563**	**111.959**	**93.273**	**7086.793**	**1026.729**	**977.358**	**0.787**	**873.220**	**736.783**	**72453**	**35.454**	**340.586**	**2704.922**

TI021	Treated Area (acres) -->	2.45	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders	D	2		12	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	16.472	4.250	51.384	0.073	1.593	1.466	7440	0.000	0.383	336.941
Offroad	Fellers/Bunchers	D	1		12	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	18.196	5.661	54.525	0.106	1.731	1.592	9390	0.000	0.511	425.136
Offroad	Skidders	D	1		12	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	43.834	6.232	49.390	0.086	2.744	2.524	7626	0.000	0.562	347.626
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	8		12	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	30.383	2.851	3.052	0.049	2.245	0.667	4458	0.226	0.256	NA
Onroad	Worker Trips-Unpaved Roads	G	8		12	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	6.491	0.856	0.483	0.003	50.578	5.068	245	0.012	0.014	NA
Burn	Eucalyptus/Acacia	acres->	0.39	50%	1	456.744	65.689	39.516	NA	49.267	48.240	NA	2.361	22.889	NA	456.744	65.689	39.516	NA	49.267	48.240	NA	2.361	22.889	NA
Burn	Oak/Bay	acres->	0.22	50%	1	84.034	12.086	7.270	NA	9.064	8.876	NA	0.434	4.211	NA	84.034	12.086	7.270	NA	9.064	8.876	NA	0.434	4.211	NA
Burn	Pine	acres->	1.84	50%	1	1791.586	148.123	135.780	NA	172.810	172.810	NA	8.112	77.236	NA	1791.586	148.123	135.780	NA	172.810	172.810	NA	8.112	77.236	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2346.780**	**228.399**	**200.120**	**0.032**	**238.722**	**231.397**	**3029**	**10.941**	**104.531**	**93.273**	**2493.407**	**253.266**	**346.408**	**0.324**	**293.136**	**242.167**	**29838**	**11.265**	**106.523**	**1119.278**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION Treated Area (acres) --> 110.98

EBRPD - Tilden Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	10	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	15.991	4.258	25.304	0.025	2.230	2.051	2166	0.000	0.384	99.476
Offroad	Loaders, Rubber Tired	D	1	10	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	12.734	2.977	18.450	0.021	1.610	1.482	1807	0.000	0.269	82.812
Onroad	Dump Truck Trips-Paved Roads	D	1	10	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	4.045	0.893	22.044	0.030	4.336	1.479	3107	0.029	0.077	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	10	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.436	0.097	1.174	0.001	17.839	1.803	134	0.001	0.003	NA
Onroad	Water Truck-Paved Roads	D	1	10	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	2.194	0.485	11.341	0.015	2.172	0.744	1583	0.015	0.039	NA
Onroad	Water Truck-Unpaved Roads	D	1	10	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.436	0.097	1.174	0.001	17.839	1.803	134	0.001	0.003	NA
Onroad	Worker Trips-Paved Roads	G	4	10	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	4	10	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Dust	Treated Area (acres) --> (acres)		0.25	10	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	25.000	2.500	NA	NA	NA	NA
Totals For Access Road Construction (TI001 - TI007c)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**51.200**	**10.350**	**80.960**	**0.116**	**93.037**	**14.252**	**10892**	**0.145**	**0.888**	**182.288**

TI001	Treated Area (acres) -->	4.64	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 2 years																									
Offroad	Air Compressors	G	1		23	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	61.738	1.682	1.236	0.003	0.861	0.792	103	0.130	0.094	10.681
Offroad	Chainsaws	G	2		23	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	9.206	5.090	0.080	0.001	0.014	0.013	25	0.041	0.316	3.043
Offroad	Chainsaws Preempt	G	1		23	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	11.127	6.152	0.097	0.001	0.018	0.016	30	0.033	0.382	3.679
Offroad	Chippers/Stump Grinders-Trailer	G	1		23	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	956.489	25.847	16.543	0.037	12.403	11.411	1480	0.986	1.429	159.632
Offroad	Trimmers/Edgers/Brush Cutters	G	2		23	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.375	1.025	0.029	0.000	0.005	0.005	9	0.016	0.064	0.950
Onroad	Worker Trips-Paved Roads	G	4		23	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	29.117	2.732	2.925	0.046	2.152	0.639	4272	0.216	0.245	NA
Onroad	Worker Trips-Unpaved Roads	G	4		23	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	6.220	0.820	0.463	0.003	48.471	4.857	235	0.012	0.013	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	3	0.640	0.092	0.055	NA	0.069	0.068	NA	0.003	0.032	NA	1.599	0.230	0.138	NA	0.173	0.169	NA	0.008	0.080	NA
Burn	Oak/Bay	acres->	0.07	50%	3	10.867	1.563	0.940	NA	1.172	1.148	NA	0.056	0.545	NA	27.168	3.907	2.351	NA	2.931	2.869	NA	0.140	1.361	NA
Burn	Pine	acres->	1.58	50%	3	614.580	50.812	46.577	NA	59.280	59.280	NA	2.783	26.495	NA	1536.450	127.029	116.444	NA	148.201	148.201	NA	6.956	66.237	NA
Burn	Scrub	acres->	2.99	50%	3	290.700	46.005	26.670	NA	34.004	32.670	NA	NA	14.935	NA	726.749	115.013	66.674	NA	85.010	81.676	NA	NA	37.338	NA
Burn	Grass	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	0	50%	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	50%	3	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**963.625**	**100.357**	**75.172**	**0.004**	**97.305**	**93.937**	**268**	**2.904**	**42.117**	**7.738**	**3369.239**	**289.529**	**206.979**	**0.092**	**300.238**	**250.649**	**6153**	**8.539**	**107.560**	**177.984**

TI002a	Treated Area (acres) -->	52.66	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		263	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	705.961	19.235	14.132	0.033	9.848	9.060	1175	1.482	1.075	122.137
Offroad	Chainsaws	G	2		263	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	105.263	58.199	0.914	0.012	0.166	0.152	285	0.472	3.617	34.799
Offroad	Chainsaws Preempt	G	1		263	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	127.235	70.348	1.105	0.014	0.200	0.184	344	0.378	4.372	42.063
Offroad	Chippers/Stump Grinders	D	2		263	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	361.016	93.140	1126.164	1.600	34.915	32.122	163058	0.000	8.404	7384.623
Offroad	Fellers/Bunchers	D	1		263	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	398.801	124.062	1195.007	2.316	37.933	34.898	205800	0.000	11.194	9317.569
Offroad	Skidders	D	2		263	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	1921.396	273.149	2164.931	3.761	120.278	110.655	334269	0.000	24.646	15237.593
Offroad	Trimmers/Edgers/Brush Cutters	G	2		263	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	38.597	11.721	0.335	0.004	0.061	0.056	104	0.184	0.729	10.861
Onroad	Worker Trips-Paved Roads	G	8		263	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	665.887	62.490	66.900	1.063	49.212	14.622	97708	4.943	5.606	NA
Onroad	Worker Trips-Unpaved Roads	G	8		263	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	142.256	18.764	10.578	0.060	1108.507	111.077	5365	0.270	0.306	NA
Burn	Eucalyptus/Acacia	acres->	51.15	50%	27	2248.079	323.319	194.497	NA	242.489	237.438	NA	11.619	112.657	NA	59574.094	8567.960	5154.163	NA	6425.970	6292.095	NA	307.911	2985.398	NA
Burn	Oak/Bay	acres->	0.14	50%	27	1.961	0.282	0.170	NA	0.212	0.207	NA	0.010	0.098	NA	51.976	7.475	4.497	NA	5.606	5.490	NA	0.269	2.605	NA
Burn	Pine	acres->	1.37	50%	27	50.402	4.167	3.820	NA	4.862	4.862	NA	0.228	2.173	NA	1335.646	110.427	101.225	NA	128.832	128.832	NA	6.047	57.580	NA
Burn	Scrub	acres->	0.00	50%	27	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	27	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	27	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	27.478	6.090	109.641	0.148	22.506	8.234	15319	0.141	0.379	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	27	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	1.293	0.282	3.121	0.003	47.285	4.790	361	0.003	0.009	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2318.510**	**330.789**	**220.156**	**0.039**	**255.372**	**244.187**	**3664**	**11.892**	**115.170**	**122.242**	**65456.901**	**9423.343**	**9952.713**	**9.015**	**7991.318**	**6752.268**	**823787**	**322.099**	**3105.920**	**32149.645**

TI002b	Treated Area (acres) -->	0.13	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	2		1	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.13	50%	1	50.842	7.312	4.399	NA	5.484	5.370	NA	0.263	2.548	NA	50.842	7.312	4.399	NA	5.484	5.370	NA	0.263	2.548	NA
Burn	Pine	acres->	0.00	50%	1	1.838	0.152	0.139	NA	0.177	0.177	NA	0.008	0.079	NA	1.838	0.152	0.139	NA	0.177	0.177	NA	0.008	0.079	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**70.748**	**10.484**	**26.208**	**0.039**	**13.470**	**7.228**	**3664**	**0.306**	**2.870**	**122.242**	**70.748**	**10.484**	**26.208**	**0.039**	**13.470**	**7.228**	**3664**	**0.306**	**2.870**	**122.242**

TI002c	Treated Area (acres) -->	0.70	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		3	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	8.053	0.219	0.161	0.000	0.112	0.103	13	0.017	0.012	1.393
Offroad	Chainsaws	G	2		3	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	1.201	0.664	0.010	0.000	0.002	0.002	3	0.005	0.041	0.397
Offroad	Chainsaws Preempt	G	1		3	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	1.451	0.802	0.013	0.000	0.002	0.002	4	0.004	0.050	0.480
Offroad	Chippers/Stump Grinders	D	2		3	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	4.118	1.062	12.846	0.018	0.398	0.366	1860	0.000	0.096	84.235
Offroad	Fellers/Bunchers	D	1		3	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	4.549	1.415	13.631	0.026	0.433	0.398	2348	0.000	0.128	106.284
Offroad	Skidders	D	2		3	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	21.917	3.116	24.695	0.043	1.372	1.262	3813	0.000	0.281	173.813
Offroad	Trimmers/Edgers/Brush Cutters	G	2		3	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.440	0.134	0.004	0.000	0.001	0.001	1	0.002	0.008	0.124
Onroad	Worker Trips-Paved Roads	G	8		3	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	7.596	0.713	0.763	0.012	0.561	0.167	1115	0.056	0.064	NA
Onroad	Worker Trips-Unpaved Roads	G	8		3	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.623	0.214	0.121	0.001	12.645	1.267	61	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.70	50%	1	677.979	56.053	51.382	NA	65.396	65.396	NA	3.070	29.228	NA	677.979	56.053	51.382	NA	65.396	65.396	NA	3.070	29.228	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**696.047**	**59.074**	**73.052**	**0.039**	**73.205**	**67.077**	**3664**	**3.104**	**29.470**	**122.242**	**730.012**	**64.633**	**107.882**	**0.107**	**83.555**	**69.455**	**9810**	**3.163**	**29.926**	**366.726**

TI003	Treated Area (acres) -->	15.65	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		78	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	209.373	5.705	4.191	0.010	2.921	2.687	348	0.439	0.319	36.223
Offroad	Chainsaws	G	2		78	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	31.219	17.261	0.271	0.003	0.049	0.045	84	0.140	1.073	10.321
Offroad	Chainsaws Preempt	G	1		78	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	37.735	20.864	0.328	0.004	0.059	0.055	102	0.112	1.297	12.475
Offroad	Chippers/Stump Grinders	D	2		78	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	107.070	27.623	333.995	0.475	10.355	9.527	48359	0.000	2.492	2190.116
Offroad	Fellers/Bunchers	D	1		78	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	118.276	36.794	354.413	0.687	11.250	10.350	61036	0.000	3.320	2763.385
Offroad	Loaders, Skid Steer	D	1		78	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	47.131	10.769	47.466	0.069	3.269	3.008	5316	0.000	0.972	244.697
Offroad	Skidders	D	2		78	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	569.844	81.010	642.071	1.115	35.672	32.818	99137	0.000	7.309	4519.134
Offroad	Trimmers/Edgers/Brush Cutters	G	2		78	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	11.447	3.476	0.099	0.001	0.018	0.017	31	0.055	0.216	3.221
Onroad	Worker Trips-Paved Roads	G	8		78	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	197.487	18.533	19.841	0.315	14.595	4.337	28978	1.466	1.663	NA
Onroad	Worker Trips-Unpaved Roads	G	8		78	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	42.190	5.565	3.137	0.018	328.759	32.943	1591	0.080	0.091	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	8	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	50%	8	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	13.65	50%	8	1661.670	137.382	125.934	NA	160.279	160.279	NA	7.523	71.635	NA	13293.356	1099.057	1007.469	NA	1282.233	1282.233	NA	60.186	573.080	NA
Burn	Scrub	acres->	2.00	50%	8	60.779	9.619	5.576	NA	7.110	6.831	NA	NA	3.123	NA	486.235	76.950	44.609	NA	56.876	54.646	NA	NA	24.981	NA
Burn	Grass	acres->	0.00	50%	8	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	8	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.295	1.838	33.099	0.045	6.794	2.486	4625	0.043	0.114	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	8	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.390	0.085	0.942	0.001	14.275	1.446	109	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1741.121**	**150.159**	**153.788**	**0.040**	**175.240**	**168.829**	**3732**	**7.558**	**75.013**	**125.379**	**15160.047**	**1405.530**	**2491.932**	**2.743**	**1767.125**	**1436.596**	**249716**	**62.522**	**616.929**	**9779.573**

TI004	Treated Area (acres) -->	26.32	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		132	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	354.323	9.654	7.093	0.017	4.943	4.547	590	0.744	0.539	61.301
Offroad	Chainsaws	G	2		132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	52.832	29.210	0.459	0.006	0.083	0.076	143	0.237	1.816	17.466
Offroad	Chainsaws Preempt	G	1		132	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	63.860	35.308	0.554	0.007	0.100	0.092	173	0.190	2.195	21.111
Offroad	Chippers/Stump Grinders	D	2		132	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	181.195	46.747	565.223	0.803	17.524	16.122	81839	0.000	4.218	3706.351
Offroad	Fellers/Bunchers	D	1		132	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	200.159	62.267	599.775	1.162	19.039	17.516	103291	0.000	5.618	4676.499
Offroad	Loaders, Skid Steer	D	1		132	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	79.760	18.224	80.327	0.116	5.532	5.090	8996	0.000	1.644	414.102
Offroad	Skidders	D	2		132	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	964.351	137.094	1086.581	1.888	60.367	55.538	167770	0.000	12.370	7647.765
Offroad	Trimmers/Edgers/Brush Cutters	G	2		132	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	19.372	5.883	0.168	0.002	0.030	0.028	52	0.092	0.366	5.451
Onroad	Worker Trips-Paved Roads	G	8		132	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	334.209	31.364	33.577	0.534	24.700	7.339	49040	2.481	2.814	NA
Onroad	Worker Trips-Unpaved Roads	G	8		132	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	71.398	9.417	5.309	0.030	556.361	55.750	2693	0.135	0.154	NA
Burn	Eucalyptus/Acacia	acres->	21.55	50%	13	1930.877	277.699	167.053	NA	208.274	203.935	NA	9.980	96.761	NA	25101.401	3610.089	2171.694	NA	2707.567	2651.159	NA	129.738	1257.890	NA
Burn	Oak/Bay	acres->	0.02	50%	13	0.672	0.097	0.058	NA	0.072	0.071	NA	0.003	0.034	NA	8.736	1.256	0.756	NA	0.942	0.923	NA	0.045	0.438	NA
Burn	Pine	acres->	4.48	50%	13	335.683	27.753	25.441	NA	32.379	32.379	NA	1.520	14.471	NA	4363.874	360.793	330.727	NA	420.925	420.925	NA	19.758	188.128	NA
Burn	Scrub	acres->	0.26	50%	13	4.866	0.770	0.446	NA	0.569	0.547	NA	NA	0.250	NA	63.259	10.011	5.804	NA	7.400	7.109	NA	NA	3.250	NA
Burn	Grass	acres->	0.00	50%	13	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	13	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	13.480	2.987	53.786	0.072	11.041	4.039	7515	0.069	0.186	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	13	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.634	0.139	1.531	0.002	23.197	2.350	177	0.002	0.004	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2290.770**	**309.478**	**215.277**	**0.040**	**249.146**	**238.652**	**3732**	**11.538**	**111.771**	**125.379**	**31872.843**	**4370.444**	**4943.365**	**4.639**	**3859.750**	**3248.603**	**422278**	**153.490**	**1481.629**	**16550.046**

TI005	Treated Area (acres) -->	4.94	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		25	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	67.107	1.828	1.343	0.003	0.936	0.861	112	0.141	0.102	11.610
Offroad	Chainsaws	G	2		25	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	10.006	5.532	0.087	0.001	0.016	0.014	27	0.045	0.344	3.308
Offroad	Chainsaws Preempt	G	1		25	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	12.095	6.687	0.105	0.001	0.019	0.018	33	0.036	0.416	3.998
Offroad	Chippers/Stump Grinders	D	2		25	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	34.317	8.854	107.050	0.152	3.319	3.053	15500	0.000	0.799	701.960
Offroad	Fellers/Bunchers	D	1		25	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	37.909	11.793	113.594	0.220	3.606	3.317	19563	0.000	1.064	885.700
Offroad	Loaders, Skid Steer	D	1		25	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	15.106	3.452	15.214	0.022	1.048	0.964	1704	0.000	0.311	78.428
Offroad	Skidders	D	2		25	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	182.642	25.965	205.792	0.358	11.433	10.519	31775	0.000	2.343	1448.440
Offroad	Trimmers/Edgers/Brush Cutters	G	2		25	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	3.669	1.114	0.032	0.000	0.006	0.005	10	0.018	0.069	1.032
Onroad	Worker Trips-Paved Roads	G	8		25	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	63.297	5.940	6.359	0.101	4.678	1.390	9288	0.470	0.533	NA
Onroad	Worker Trips-Unpaved Roads	G	8		25	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	13.522	1.784	1.006	0.006	105.371	10.559	510	0.026	0.029	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.01	50%	3	1.255	0.180	0.109	NA	0.135	0.133	NA	0.006	0.063	NA	3.137	0.451	0.271	NA	0.338	0.331	NA	0.016	0.157	NA
Burn	Pine	acres->	1.85	50%	3	721.327	59.637	54.668	NA	69.577	69.577	NA	3.266	31.097	NA	1803.318	149.093	136.669	NA	173.942	173.942	NA	8.165	77.741	NA
Burn	Scrub	acres->	3.08	50%	3	299.340	47.373	27.462	NA	35.015	33.641	NA	NA	15.379	NA	748.350	118.432	68.656	NA	87.536	84.104	NA	NA	38.447	NA
Burn	Grass	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.592	0.575	10.343	0.014	2.123	0.777	1445	0.013	0.036	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.122	0.027	0.294	0.000	4.461	0.452	34	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1040.594**	**110.349**	**104.517**	**0.040**	**112.578**	**105.070**	**3732**	**3.307**	**46.793**	**125.379**	**2997.188**	**341.526**	**666.815**	**0.879**	**398.832**	**290.306**	**79999**	**8.929**	**122.393**	**3134.478**

TI007a	Treated Area (acres) -->	2.41	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 1 year																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders	D	2		12	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	16.472	4.250	51.384	0.073	1.593	1.466	7440	0.000	0.383	336.941
Offroad	Fellers/Bunchers	D	1		12	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	18.196	5.661	54.525	0.106	1.731	1.592	9390	0.000	0.511	425.136
Offroad	Loaders, Skid Steer	D	1		12	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	7.251	1.657	7.302	0.011	0.503	0.463	818	0.000	0.149	37.646
Offroad	Skidders	D	2		12	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	87.668	12.463	98.780	0.172	5.488	5.049	15252	0.000	1.125	695.251
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	8		12	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	30.383	2.851	3.052	0.049	2.245	0.667	4458	0.226	0.256	NA
Onroad	Worker Trips-Unpaved Roads	G	8		12	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	6.491	0.856	0.483	0.003	50.578	5.068	245	0.012	0.014	NA
Burn	Eucalyptus/Acacia	acres->	2.41	50%	1	2806.468	403.627	242.807	NA	302.720	296.413	NA	14.505	140.639	NA	2806.468	403.627	242.807	NA	302.720	296.413	NA	14.505	140.639	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2825.141**	**406.785**	**265.085**	**0.040**	**310.571**	**298.133**	**3732**	**14.540**	**140.894**	**125.379**	**3018.596**	**438.883**	**463.341**	**0.421**	**367.961**	**311.641**	**38281**	**14.863**	**143.538**	**1504.550**

TI007b	Treated Area (acres) -->	1.32	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		7	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	18.790	0.512	0.376	0.001	0.262	0.241	31	0.039	0.029	3.251
Offroad	Chainsaws	G	2		7	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.802	1.549	0.024	0.000	0.004	0.004	8	0.013	0.096	0.926
Offroad	Chainsaws Preempt	G	1		7	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	3.386	1.872	0.029	0.000	0.005	0.005	9	0.010	0.116	1.120
Offroad	Chippers/Stump Grinders	D	2		7	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	9.609	2.479	29.974	0.043	0.929	0.855	4340	0.000	0.224	196.549
Offroad	Fellers/Bunchers	D	1		7	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	10.614	3.302	31.806	0.062	1.010	0.929	5478	0.000	0.298	247.996
Offroad	Loaders, Skid Steer	D	1		7	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	4.230	0.966	4.260	0.006	0.293	0.270	477	0.000	0.087	21.960
Offroad	Skidders	D	2		7	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	51.140	7.270	57.622	0.100	3.201	2.945	8897	0.000	0.656	405.563
Offroad	Trimmers/Edgers/Brush Cutters	G	2		7	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.027	0.312	0.009	0.000	0.002	0.001	3	0.005	0.019	0.289
Onroad	Worker Trips-Paved Roads	G	8		7	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	17.723	1.663	1.781	0.028	1.310	0.389	2601	0.132	0.149	NA
Onroad	Worker Trips-Unpaved Roads	G	8		7	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	3.786	0.499	0.282	0.002	29.504	2.956	143	0.007	0.008	NA
Burn	Eucalyptus/Acacia	acres->	1.26	50%	1	1466.816	210.958	126.904	NA	158.218	154.922	NA	7.581	73.506	NA	1466.816	210.958	126.904	NA	158.218	154.922	NA	7.581	73.506	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.06	50%	1	59.152	4.891	4.483	NA	5.706	5.706	NA	0.268	2.550	NA	59.152	4.891	4.483	NA	5.706	5.706	NA	0.268	2.550	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1544.641**	**219.007**	**153.666**	**0.040**	**171.775**	**162.347**	**3732**	**7.884**	**76.311**	**125.379**	**1650.162**	**236.514**	**261.805**	**0.248**	**203.078**	**169.715**	**22577**	**8.060**	**77.753**	**877.654**

TI007c	Treated Area (acres) -->	2.22	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos?																									
Offroad	Air Compressors	G	1		11	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	29.527	0.805	0.591	0.001	0.412	0.379	49	0.062	0.045	5.108
Offroad	Chainsaws	G	2		11	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.403	2.434	0.038	0.000	0.007	0.006	12	0.020	0.151	1.455
Offroad	Chainsaws Preempt	G	1		11	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.322	2.942	0.046	0.001	0.008	0.008	14	0.016	0.183	1.759
Offroad	Chippers/Stump Grinders	D	2		11	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	15.100	3.896	47.102	0.067	1.460	1.343	6820	0.000	0.351	308.863
Offroad	Fellers/Bunchers	D	1		11	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	16.680	5.189	49.981	0.097	1.587	1.460	8608	0.000	0.468	389.708
Offroad	Loaders, Skid Steer	D	1		11	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	6.647	1.519	6.694	0.010	0.461	0.424	750	0.000	0.137	34.509
Offroad	Skidders	D	2		11	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	80.363	11.424	90.548	0.157	5.031	4.628	13981	0.000	1.031	637.314
Offroad	Trimmers/Edgers/Brush Cutters	G	2		11	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.614	0.490	0.014	0.000	0.003	0.002	4	0.008	0.030	0.454
Onroad	Worker Trips-Paved Roads	G	8		11	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	27.851	2.614	2.798	0.044	2.058	0.612	4087	0.207	0.234	NA
Onroad	Worker Trips-Unpaved Roads	G	8		11	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	5.950	0.785	0.442	0.003	46.363	4.646	224	0.011	0.013	NA
Burn	Eucalyptus/Acacia	acres->	1.93	50%	1	2245.218	322.908	194.249	NA	242.181	237.135	NA	11.604	112.513	NA	2245.218	322.908	194.249	NA	242.181	237.135	NA	11.604	112.513	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.30	50%	1	287.418	23.763	21.783	NA	27.723	27.723	NA	1.301	12.391	NA	287.418	23.763	21.783	NA	27.723	27.723	NA	1.301	12.391	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Ro	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**2551.309**	**349.829**	**238.310**	**0.040**	**277.755**	**266.578**	**3732**	**12.941**	**125.159**	**125.379**	**2727.177**	**379.008**	**418.543**	**0.386**	**329.928**	**278.858**	**35141**	**13.234**	**127.563**	**1379.170**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

PROPOSED ACTION Treated Area (acres) --> 28.00

EBRPD - Wildcat Canyon Regional Park

Activity	Equipment Type	Fuel	No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal/day) Fuel	Activity Total Emission (lbs) CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	(gal) Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																								
Offroad	Dozers (Crawler Tractors)	D	1	2	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	3.198	0.852	5.061	0.005	0.446	0.410	433	0.000	0.077	19.895
Offroad	Loaders, Rubber Tired	D	1	2	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	2.547	0.595	3.690	0.004	0.322	0.296	361	0.000	0.054	16.562
Onroad	Dump Truck Trips-Paved Roads	D	1	2	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	0.809	0.179	4.409	0.006	0.867	0.296	621	0.006	0.015	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	2	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.439	0.097	2.268	0.003	0.434	0.149	317	0.003	0.008	NA
Onroad	Water Truck-Unpaved Roads	D	1	2	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.087	0.019	0.235	0.000	3.568	0.361	27	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	2	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	4	2	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Dust	Treated Area (acres) --> (acres)		0.25	2	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	5.000	0.500	NA	NA	NA	NA
Totals For Access Road Construction (WC005, & 006)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**10.240**	**2.070**	**16.192**	**0.023**	**18.607**	**2.850**	**2178**	**0.029**	**0.178**	**36.458**

WC003	**Treated Area (acres) -->**	0.94	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders	D	2		5	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	6.863	1.771	21.410	0.030	0.664	0.611	3100	0.000	0.160	140.392
Offroad	Fellers/Bunchers	D	1		5	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	7.582	2.359	22.719	0.044	0.721	0.663	3913	0.000	0.213	177.140
Offroad	Skidders	D	2		5	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	36.528	5.193	41.158	0.072	2.287	2.104	6355	0.000	0.469	289.688
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	8		5	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	12.659	1.188	1.272	0.020	0.936	0.278	1858	0.094	0.107	NA
Onroad	Worker Trips-Unpaved Roads	G	8		5	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	2.704	0.357	0.201	0.001	21.074	2.112	102	0.005	0.006	NA
Burn	Eucalyptus/Acacia	acres->	0.00	33%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.03	33%	1	7.235	1.041	0.626	NA	0.780	0.764	NA	0.037	0.363	NA	7.235	1.041	0.626	NA	0.780	0.764	NA	0.037	0.363	NA
Burn	Pine	acres->	0.00	33%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.91	33%	1	147.459	23.336	13.528	NA	17.249	16.572	NA	NA	7.576	NA	147.459	23.336	13.528	NA	17.249	16.572	NA	NA	7.576	NA
Burn	Grass	acres->	0.00	33%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	67%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	67%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**172.763**	**27.397**	**35.824**	**0.039**	**25.838**	**19.017**	**3664**	**0.072**	**8.181**	**122.242**	**240.693**	**38.517**	**105.483**	**0.174**	**46.539**	**23.775**	**15955**	**0.190**	**9.093**	**611.210**

WC004	**Treated Area (acres) -->**	2.40	**No. of Units**	**% Burned or**	**Total**	**Emission Rates (lbs/day), based on 8 hrs/day**									**(gal/day)**	**Activity Total Emission (lbs)**									**(gal)**
Activity	**Equipment Type**	**Fuel**	**or No. of Trips**	**% Removed**	**No. of Days**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**	**CO**	**VOC**	**NOx**	**SOx**	**PM10**	**PM2.5**	**CO2**	**N2O**	**CH4**	**Fuel**
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders	D	2		12	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	16.472	4.250	51.384	0.073	1.593	1.466	7440	0.000	0.383	336.941
Offroad	Fellers/Bunchers	D	1		12	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	18.196	5.661	54.525	0.106	1.731	1.592	9390	0.000	0.511	425.136
Offroad	Mowers, Rear Engine Riding	G	1		12	2.010	0.032	0.023	0.000	0.002	0.001	3	0.003	0.002	0.345	24.122	0.386	0.276	0.001	0.019	0.017	40	0.040	0.022	4.135
Offroad	Skidders	D	2		12	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	87.668	12.463	98.780	0.172	5.488	5.049	15252	0.000	1.125	695.251
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	8		12	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	30.383	2.851	3.052	0.049	2.245	0.667	4458	0.226	0.256	NA
Onroad	Worker Trips-Unpaved Roads	G	8		12	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	6.491	0.856	0.483	0.003	50.578	5.068	245	0.012	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	100%	2	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	2.074	0.460	8.275	0.011	1.699	0.621	1156	0.011	0.029	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	100%	2	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.098	0.021	0.236	0.000	3.569	0.361	27	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**20.078**	**3.052**	**21.693**	**0.040**	**7.811**	**1.682**	**3668**	**0.038**	**0.244**	**122.587**	**230.084**	**34.225**	**217.763**	**0.417**	**67.390**	**15.274**	**38096**	**0.404**	**2.786**	**1471.039**

WC009	Treated Area (acres) -->	2.48	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		12	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	32.211	0.878	0.645	0.002	0.449	0.413	54	0.068	0.049	5.573
Offroad	Chainsaws	G	2		12	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	4.803	2.655	0.042	0.001	0.008	0.007	13	0.022	0.165	1.588
Offroad	Chainsaws Preempt	G	1		12	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	5.805	3.210	0.050	0.001	0.009	0.008	16	0.017	0.200	1.919
Offroad	Chippers/Stump Grinders-Trailer	G	1		12	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	499.038	13.486	8.631	0.020	6.471	5.953	772	0.515	0.746	83.286
Offroad	Trimmers/Edgers/Brush Cutters	G	2		12	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	1.761	0.535	0.015	0.000	0.003	0.003	5	0.008	0.033	0.496
Onroad	Worker Trips-Paved Roads	G	4		12	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	15.191	1.426	1.526	0.024	1.123	0.334	2229	0.113	0.128	NA
Onroad	Worker Trips-Unpaved Roads	G	4		12	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	3.245	0.428	0.241	0.001	25.289	2.534	122	0.006	0.007	NA
Burn	Eucalyptus/Acacia	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.41	100%	2	157.230	22.613	13.603	NA	16.960	16.606	NA	0.813	7.879	NA	314.461	45.226	27.206	NA	33.919	33.213	NA	1.625	15.758	NA
Burn	Pine	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	2.07	100%	2	501.702	79.398	46.028	NA	58.685	56.384	NA	NA	25.776	NA	1003.404	158.796	92.055	NA	117.371	112.768	NA	NA	51.551	NA
Burn	Grass	acres->	0.00	100%	2	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	0	0%	1	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**705.770**	**103.895**	**60.560**	**0.004**	**78.424**	**73.761**	**268**	**0.875**	**33.765**	**7.738**	**1879.920**	**226.639**	**130.412**	**0.048**	**184.642**	**155.233**	**3210**	**2.374**	**68.637**	**92.861**

WC010	Treated Area (acres) -->	5.59	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		28	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	75.159	2.048	1.505	0.004	1.048	0.965	125	0.158	0.114	13.003
Offroad	Chainsaws	G	2		28	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	11.207	6.196	0.097	0.001	0.018	0.016	30	0.050	0.385	3.705
Offroad	Chainsaws Preempt	G	1		28	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	13.546	7.490	0.118	0.002	0.021	0.020	37	0.040	0.466	4.478
Offroad	Chippers/Stump Grinders-Trailer	G	1		28	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	1164.421	31.466	20.139	0.046	15.099	13.891	1801	1.201	1.740	194.334
Offroad	Loaders, Skid Steer	D	1		28	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	16.919	3.866	17.039	0.025	1.174	1.080	1908	0.000	0.349	87.840
Offroad	Trimmers/Edgers/Brush Cutters	G	2		28	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	4.109	1.248	0.036	0.000	0.006	0.006	11	0.020	0.078	1.156
Onroad	Worker Trips-Paved Roads	G	4		28	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	35.446	3.326	3.561	0.057	2.620	0.778	5201	0.263	0.298	NA
Onroad	Worker Trips-Unpaved Roads	G	4		28	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	7.573	0.999	0.563	0.003	59.008	5.913	286	0.014	0.016	NA
Burn	Eucalyptus/Acacia	acres->	0.06	50%	3	23.230	3.341	2.010	NA	2.506	2.454	NA	0.120	1.164	NA	69.691	10.023	6.029	NA	7.517	7.361	NA	0.360	3.492	NA
Burn	Oak/Bay	acres->	0.26	50%	3	33.549	4.825	2.903	NA	3.619	3.543	NA	0.173	1.681	NA	100.647	14.475	8.708	NA	10.856	10.630	NA	0.520	5.044	NA
Burn	Pine	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	5.27	50%	3	426.894	67.559	39.165	NA	49.935	47.977	NA	NA	21.932	NA	1280.682	202.677	117.494	NA	149.805	143.930	NA	NA	65.797	NA
Burn	Grass	acres->	0.00	50%	3	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	3	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	3.111	0.689	12.412	0.017	2.548	0.932	1734	0.016	0.043	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	3	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.146	0.032	0.353	0.000	5.353	0.542	41	0.000	0.001	NA
Totals For Cutting/Skidding/Chipping/Trimming						**532.201**	**77.988**	**49.870**	**0.011**	**61.514**	**55.275**	**927**	**0.361**	**24.915**	**10.876**	**2782.657**	**284.535**	**188.054**	**0.154**	**255.073**	**186.063**	**11174**	**2.643**	**77.823**	**304.516**

WC011	Treated Area (acres) -->	16.59	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		83	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	222.794	6.070	4.460	0.011	3.108	2.859	371	0.468	0.339	38.545
Offroad	Chainsaws	G	2		83	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	33.220	18.367	0.288	0.004	0.052	0.048	90	0.149	1.142	10.982
Offroad	Chainsaws Preempt	G	1		83	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	40.154	22.201	0.349	0.004	0.063	0.058	109	0.119	1.380	13.275
Offroad	Chippers/Stump Grinders-Trailer	G	1		83	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	3451.676	93.276	59.698	0.135	44.758	41.178	5339	3.560	5.158	576.062
Offroad	Trimmers/Edgers/Brush Cutters	G	2		83	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	12.181	3.699	0.106	0.001	0.019	0.018	33	0.058	0.230	3.428
Onroad	Worker Trips-Paved Roads	G	4		83	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	105.073	9.861	10.556	0.168	7.765	2.307	15418	0.780	0.885	NA
Onroad	Worker Trips-Unpaved Roads	G	4		83	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	22.447	2.961	1.669	0.009	174.916	17.527	847	0.043	0.048	NA
Burn	Eucalyptus/Acacia	acres->	0.06	50%	9	8.807	1.267	0.762	NA	0.950	0.930	NA	0.046	0.441	NA	74.856	10.766	6.476	NA	8.074	7.906	NA	0.387	3.751	NA
Burn	Oak/Bay	acres->	0.77	50%	9	34.787	5.003	3.010	NA	3.752	3.674	NA	0.180	1.743	NA	295.687	42.526	25.582	NA	31.894	31.230	NA	1.528	14.818	NA
Burn	Pine	acres->	0.00	50%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	15.75	50%	9	450.248	71.255	41.307	NA	52.667	50.601	NA	NA	23.132	NA	3827.109	605.666	351.111	NA	447.666	430.111	NA	NA	196.622	NA
Burn	Grass	acres->	0.00	50%	9	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	9	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	8.814	1.953	35.168	0.047	7.219	2.641	4914	0.045	0.121	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	9	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.415	0.091	1.001	0.001	15.167	1.536	116	0.001	0.003	NA
Totals For Cutting/Skidding/Chipping/Trimming						**541.765**	**79.650**	**50.263**	**0.010**	**62.782**	**56.468**	**859**	**0.293**	**25.442**	**7.738**	**8094.427**	**817.436**	**496.465**	**0.381**	**740.703**	**537.420**	**27235**	**7.137**	**224.497**	**642.291**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CONNECTED ACTION Treated Area (acres) --> 16.81

EBRPD - Wildcat Canyon Regional Park

WC005	Treated Area (acres) -->	14.72	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 years																									
Offroad	Air Compressors	G	1		74	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	198.636	5.412	3.976	0.009	2.771	2.549	331	0.417	0.302	34.366
Offroad	Chainsaws	G	2		74	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	29.618	16.375	0.257	0.003	0.047	0.043	80	0.133	1.018	9.791
Offroad	Chainsaws Preempt	G	1		74	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	35.800	19.794	0.311	0.004	0.056	0.052	97	0.106	1.230	11.835
Offroad	Chippers/Stump Grinders	D	2		74	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	101.579	26.207	316.867	0.450	9.824	9.038	45879	0.000	2.365	2077.803
Offroad	Fellers/Bunchers	D	1		74	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	112.210	34.907	336.238	0.652	10.673	9.819	57906	0.000	3.150	2621.673
Offroad	Skidders	D	2		74	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	540.621	76.856	609.144	1.058	33.842	31.135	94053	0.000	6.935	4287.384
Offroad	Trimmers/Edgers/Brush Cutters	G	2		74	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	10.860	3.298	0.094	0.001	0.017	0.016	29	0.052	0.205	3.056
Onroad	Worker Trips-Paved Roads	G	8		74	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	187.360	17.583	18.823	0.299	13.847	4.114	27492	1.391	1.577	NA
Onroad	Worker Trips-Unpaved Roads	G	8		74	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	40.026	5.279	2.976	0.017	311.899	31.254	1510	0.076	0.086	NA
Burn	Eucalyptus/Acacia	acres->	11.79	50%	8	1831.157	263.357	158.426	NA	197.518	193.403	NA	9.464	91.764	NA	13733.678	1975.181	1188.195	NA	1481.386	1450.523	NA	70.983	688.227	NA
Burn	Oak/Bay	acres->	0.58	50%	8	29.372	4.224	2.541	NA	3.168	3.102	NA	0.152	1.472	NA	220.290	31.682	19.059	NA	23.762	23.267	NA	1.139	11.039	NA
Burn	Pine	acres->	2.36	50%	8	305.998	25.299	23.191	NA	29.516	29.516	NA	1.385	13.192	NA	2294.983	189.743	173.931	NA	221.366	221.366	NA	10.391	98.937	NA
Burn	Scrub	acres->	0.00	50%	8	0.025	0.004	0.002	NA	0.003	0.003	NA	NA	0.001	NA	0.190	0.030	0.017	NA	0.022	0.021	NA	NA	0.010	NA
Burn	Grass	acres->	0.00	50%	8	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	8	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	7.777	1.724	31.030	0.042	6.370	2.330	4336	0.040	0.107	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	8	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.366	0.080	0.883	0.001	13.383	1.356	102	0.001	0.003	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**2184.620**	**295.905**	**205.830**	**0.039**	**238.014**	**227.705**	**3664**	**11.036**	**106.671**	**122.242**	**17513.993**	**2404.150**	**2701.803**	**2.537**	**2129.264**	**1786.883**	**231814**	**84.727**	**815.191**	**9045.908**

WC006	Treated Area (acres) -->	1.13	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		6	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	16.106	0.439	0.322	0.001	0.225	0.207	27	0.034	0.025	2.786
Offroad	Chainsaws	G	2		6	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.401	1.328	0.021	0.000	0.004	0.003	6	0.011	0.083	0.794
Offroad	Chainsaws Preempt	G	1		6	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.903	1.605	0.025	0.000	0.005	0.004	8	0.009	0.100	0.960
Offroad	Chippers/Stump Grinders	D	2		6	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	8.236	2.125	25.692	0.037	0.797	0.733	3720	0.000	0.192	168.470
Offroad	Fellers/Bunchers	D	1		6	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	9.098	2.830	27.263	0.053	0.865	0.796	4695	0.000	0.255	212.568
Offroad	Skidders	D	2		6	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	43.834	6.232	49.390	0.086	2.744	2.524	7626	0.000	0.562	347.626
Offroad	Trimmers/Edgers/Brush Cutters	G	2		6	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.881	0.267	0.008	0.000	0.001	0.001	2	0.004	0.017	0.248
Onroad	Worker Trips-Paved Roads	G	8		6	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	15.191	1.426	1.526	0.024	1.123	0.334	2229	0.113	0.128	NA
Onroad	Worker Trips-Unpaved Roads	G	8		6	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	3.245	0.428	0.241	0.001	25.289	2.534	122	0.006	0.007	NA
Burn	Eucalyptus/Acacia	acres->	0.92	50%	1	1073.402	154.377	92.867	NA	115.783	113.371	NA	5.548	53.791	NA	1073.402	154.377	92.867	NA	115.783	113.371	NA	5.548	53.791	NA
Burn	Oak/Bay	acres->	0.00	50%	1	1.109	0.159	0.096	NA	0.120	0.117	NA	0.006	0.056	NA	1.109	0.159	0.096	NA	0.120	0.117	NA	0.006	0.056	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.21	50%	1	50.362	7.970	4.620	NA	5.891	5.660	NA	NA	2.587	NA	50.362	7.970	4.620	NA	5.891	5.660	NA	NA	2.587	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**1142.941**	**165.527**	**119.253**	**0.039**	**129.602**	**120.828**	**3664**	**5.588**	**56.676**	**122.242**	**1227.853**	**179.426**	**206.327**	**0.208**	**155.479**	**126.776**	**19028**	**5.735**	**57.816**	**733.452**

WC011	Treated Area (acres) -->	0.96	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		5	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	13.421	0.366	0.269	0.001	0.187	0.172	22	0.028	0.020	2.322
Offroad	Chainsaws	G	2		5	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	2.001	1.106	0.017	0.000	0.003	0.003	5	0.009	0.069	0.662
Offroad	Chainsaws Preempt	G	1		5	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	2.419	1.337	0.021	0.000	0.004	0.004	7	0.007	0.083	0.800
Offroad	Chippers/Stump Grinders-Trailer	G	1		5	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	207.932	5.619	3.596	0.008	2.696	2.481	322	0.214	0.311	34.703
Offroad	Trimmers/Edgers/Brush Cutters	G	2		5	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.734	0.223	0.006	0.000	0.001	0.001	2	0.004	0.014	0.206
Onroad	Worker Trips-Paved Roads	G	4		5	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA
Onroad	Worker Trips-Unpaved Roads	G	4		5	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	1.352	0.178	0.101	0.001	10.537	1.056	51	0.003	0.003	NA
Burn	Eucalyptus/Acacia	acres->	0.96	50%	1	1116.644	160.596	96.609	NA	120.447	117.938	NA	5.771	55.958	NA	1116.644	160.596	96.609	NA	120.447	117.938	NA	5.771	55.958	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**1164.568**	**162.721**	**101.793**	**0.010**	**125.860**	**119.200**	**859**	**5.839**	**56.083**	**7.738**	**1351.920**	**170.260**	**105.510**	**0.026**	**136.977**	**122.284**	**1929**	**6.089**	**56.525**	**38.692**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTION Treated Area (acres) --> 1.43

EBRPD - Wildcat Canyon Regional Park

			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Access Road Construction: Temporary Access (1st, 2nd, or 3rd Year of Action)																									
Offroad	Dozers (Crawler Tractors)	D	1	3	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	4.797	1.277	7.591	0.008	0.669	0.615	650	0.000	0.115	29.843
Offroad	Loaders, Rubber Tired	D	1	3	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	3.820	0.893	5.535	0.006	0.483	0.444	542	0.000	0.081	24.844
Onroad	Dump Truck Trips-Paved Roads	D	1	3	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	1.214	0.268	6.613	0.009	1.301	0.444	932	0.009	0.023	NA
Onroad	Dump Truck Trips-Unpaved Roads	D	1	3	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.131	0.029	0.352	0.000	5.352	0.541	40	0.000	0.001	NA
Onroad	Water Truck-Paved Roads	D	1	3	0.219	0.048	1.134	0.002	0.217	0.074	158	0.001	0.004	NA	0.658	0.145	3.402	0.005	0.652	0.223	475	0.004	0.012	NA
Onroad	Water Truck-Unpaved Roads	D	1	3	0.044	0.010	0.117	0.000	1.784	0.180	13	0.000	0.000	NA	0.131	0.029	0.352	0.000	5.352	0.541	40	0.000	0.001	NA
Onroad	Worker Trips-Paved Roads	G	4	3	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	3.798	0.356	0.382	0.006	0.281	0.083	557	0.028	0.032	NA
Onroad	Worker Trips-Unpaved Roads	G	4	3	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.811	0.107	0.060	0.000	6.322	0.634	31	0.002	0.002	NA
Dust	Treated Area (acres) --> (acres)		0.25	3	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	7.500	0.750	NA	NA	NA	NA
Totals For Access Road Construction (WC007a, 007b, & 008)					**5.120**	**1.035**	**8.096**	**0.012**	**9.304**	**1.425**	**1089**	**0.014**	**0.089**	**18.229**	**15.360**	**3.105**	**24.288**	**0.035**	**27.911**	**4.276**	**3268**	**0.043**	**0.266**	**54.686**

WC001	Treated Area (acres) -->	0.23	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	2		1	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.03	50%	1	12.251	1.762	1.060	NA	1.321	1.294	NA	0.063	0.614	NA	12.251	1.762	1.060	NA	1.321	1.294	NA	0.063	0.614	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.20	50%	1	49.231	7.791	4.517	NA	5.759	5.533	NA	NA	2.529	NA	49.231	7.791	4.517	NA	5.759	5.533	NA	NA	2.529	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**79.550**	**12.573**	**27.246**	**0.039**	**14.889**	**8.508**	**3664**	**0.098**	**3.386**	**122.242**	**79.550**	**12.573**	**27.246**	**0.039**	**14.889**	**8.508**	**3664**	**0.098**	**3.386**	**122.242**

WC002	Treated Area (acres) -->	0.31	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 3 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	2		2	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Fellers/Bunchers	D	1		2	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	3.033	0.943	9.088	0.018	0.288	0.265	1565	0.000	0.085	70.856
Offroad	Skidders	D	2		2	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	14.611	2.077	16.463	0.029	0.915	0.841	2542	0.000	0.187	115.875
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	8		2	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	8		2	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.31	50%	1	75.718	11.983	6.947	NA	8.857	8.510	NA	NA	3.890	NA	75.718	11.983	6.947	NA	8.857	8.510	NA	NA	3.890	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**93.787**	**15.003**	**28.617**	**0.039**	**16.666**	**10.191**	**3664**	**0.035**	**4.133**	**122.242**	**110.769**	**17.783**	**46.031**	**0.073**	**21.841**	**11.380**	**6737**	**0.064**	**4.361**	**244.484**

WC007a	Treated Area (acres) -->	0.37	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		2	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	5.369	0.146	0.107	0.000	0.075	0.069	9	0.011	0.008	0.929
Offroad	Chainsaws	G	2		2	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.800	0.443	0.007	0.000	0.001	0.001	2	0.004	0.028	0.265
Offroad	Chainsaws Preempt	G	1		2	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.968	0.535	0.008	0.000	0.002	0.001	3	0.003	0.033	0.320
Offroad	Chippers/Stump Grinders	D	2		2	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	2.745	0.708	8.564	0.012	0.266	0.244	1240	0.000	0.064	56.157
Offroad	Fellers/Bunchers	D	1		2	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	3.033	0.943	9.088	0.018	0.288	0.265	1565	0.000	0.085	70.856
Offroad	Loaders, Skid Steer	D	1		2	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	1.208	0.276	1.217	0.002	0.084	0.077	136	0.000	0.025	6.274
Offroad	Skidders	D	2		2	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	14.611	2.077	16.463	0.029	0.915	0.841	2542	0.000	0.187	115.875
Offroad	Trimmers/Edgers/Brush Cutters	G	2		2	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.294	0.089	0.003	0.000	0.000	0.000	1	0.001	0.006	0.083
Onroad	Worker Trips-Paved Roads	G	8		2	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	5.064	0.475	0.509	0.008	0.374	0.111	743	0.038	0.043	NA
Onroad	Worker Trips-Unpaved Roads	G	8		2	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	1.082	0.143	0.080	0.000	8.430	0.845	41	0.002	0.002	NA
Burn	Eucalyptus/Acacia	acres->	0.37	50%	1	434.469	62.485	37.589	NA	46.864	45.888	NA	2.246	21.772	NA	434.469	62.485	37.589	NA	46.864	45.888	NA	2.246	21.772	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**453.141**	**65.644**	**59.867**	**0.040**	**54.715**	**47.607**	**3732**	**2.280**	**22.027**	**125.379**	**470.728**	**68.562**	**77.891**	**0.075**	**59.932**	**48.835**	**6873**	**2.310**	**22.268**	**250.758**

WC007b	Treated Area (acres) -->	0.27	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders	D	2		1	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078	1.373	0.354	4.282	0.006	0.133	0.122	620	0.000	0.032	28.078
Offroad	Fellers/Bunchers	D	1		1	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428
Offroad	Loaders, Skid Steer	D	1		1	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137
Offroad	Skidders	D	2		1	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938	7.306	1.039	8.232	0.014	0.457	0.421	1271	0.000	0.094	57.938
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	8		1	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA	2.532	0.238	0.254	0.004	0.187	0.056	372	0.019	0.021	NA
Onroad	Worker Trips-Unpaved Roads	G	8		1	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA	0.541	0.071	0.040	0.000	4.215	0.422	20	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.27	50%	1	318.890	45.863	27.589	NA	34.397	33.680	NA	1.648	15.980	NA	318.890	45.863	27.589	NA	34.397	33.680	NA	1.648	15.980	NA
Burn	Oak/Bay	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For	**Cutting/Skidding/Chipping/Trimming**					**337.562**	**49.021**	**49.868**	**0.040**	**42.248**	**35.400**	**3732**	**1.683**	**16.235**	**125.379**	**337.562**	**49.021**	**49.868**	**0.040**	**42.248**	**35.400**	**3732**	**1.683**	**16.235**	**125.379**

WC008	Treated Area (acres) -->	0.23	No. of Units	% Burned or	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	% Removed	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Cutting/Skidding/Chipping/Trimming: Up to 6 mos																									
Offroad	Air Compressors	G	1		1	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464
Offroad	Chainsaws	G	2		1	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132	0.400	0.221	0.003	0.000	0.001	0.001	1	0.002	0.014	0.132
Offroad	Chainsaws Preempt	G	1		1	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160
Offroad	Chippers/Stump Grinders-Trailer	G	1		1	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941	41.586	1.124	0.719	0.002	0.539	0.496	64	0.043	0.062	6.941
Offroad	Loaders, Skid Steer	D	1		1	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137	0.604	0.138	0.609	0.001	0.042	0.039	68	0.000	0.012	3.137
Offroad	Trimmers/Edgers/Brush Cutters	G	2		1	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041	0.147	0.045	0.001	0.000	0.000	0.000	0	0.001	0.003	0.041
Onroad	Worker Trips-Paved Roads	G	4		1	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA
Onroad	Worker Trips-Unpaved Roads	G	4		1	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA	0.270	0.036	0.020	0.000	2.107	0.211	10	0.001	0.001	NA
Burn	Eucalyptus/Acacia	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Oak/Bay	acres->	0.23	50%	1	88.912	12.787	7.692	NA	9.591	9.391	NA	0.460	4.456	NA	88.912	12.787	7.692	NA	9.591	9.391	NA	0.460	4.456	NA
Burn	Pine	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	0.000	0.000	NA
Burn	Scrub	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	0.000	NA
Burn	Grass	acres->	0.00	50%	1	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA	0.000	0.000	0.000	NA	0.000	0.000	NA	NA	NA	NA
Onroad	Log/Chip Haul Truck Trips-Paved Roa	D	1	50%	1	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA	1.037	0.230	4.137	0.006	0.849	0.311	578	0.005	0.014	NA
Onroad	Log/Chip Haul Truck Trips-Unpaved	D	1	50%	1	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA	0.049	0.011	0.118	0.000	1.784	0.181	14	0.000	0.000	NA
Totals For Cutting/Skidding/Chipping/Trimming						**137.440**	**15.051**	**13.485**	**0.011**	**15.045**	**10.692**	**927**	**0.527**	**4.593**	**10.876**	**137.440**	**15.051**	**13.485**	**0.011**	**15.045**	**10.692**	**927**	**0.527**	**4.593**	**10.876**

Offroad Source: CARB OFFROAD 2007
Onroad Source: CARB EMFAC 2011
Dust Source: MRI 1996
No. of Units Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #14; and CDM Smith estimate.
No. of Days Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #13.
Treated Area (acres) --> Acerage Source: FEMA EIS - Data Needs Responses - Jan 21, 2011. Question #12.
Onroad Haul Truck distance per trip estimated to be 75 miles one way; distance to Woodland, CA.
*Optional - hauling of logs or chips only if excess material is generated from fuel reduction activity.

CUMULATIVE ACTIONS NOT DIRECTLY RELATED TO FUEL REDUCTION

1. Anthony Chabot Equestrian Center			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Connection of facility to sanitary sewer.																								
Offroad	Tractors/Loaders/Backhoes	D	1	125	1.073	0.211	1.388	0.002	0.116	0.107	157	0.000	0.019	7.198	134.130	26.396	173.524	0.231	14.558	13.394	19662	0.000	2.382	899.743
Offroad	Rubber Tired Loaders	D	1	125	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	159.170	37.215	230.623	0.265	20.131	18.521	22585	0.000	3.358	1035.146
Offroad	Air Compressors	D	1	125	1.803	0.048	0.035	0.000	0.025	0.023	3	0.004	0.003	0.312	225.393	6.006	4.415	0.011	3.148	2.896	375	0.468	0.336	38.990
Offroad	Concrete/Industrial Saws	D	1	125	3.876	0.101	0.074	0.000	0.054	0.050	6	0.006	0.006	0.672	484.530	12.605	9.275	0.023	6.796	6.253	811	0.759	0.707	83.941
Offroad	Cement and Mortar Mixers	D	1	125	0.860	0.027	0.013	0.000	0.011	0.010	1	0.001	0.002	0.142	107.492	3.421	1.616	0.005	1.329	1.223	162	0.169	0.192	17.808
Offroad	Welders	D	1	125	2.352	0.064	0.038	0.000	0.030	0.028	4	0.003	0.004	0.392	294.034	8.050	4.751	0.012	3.803	3.499	454	0.366	0.450	49.061
Onroad	Dump Truck Trips-Paved Roads	D	1	125	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	50.563	11.162	275.552	0.374	54.204	18.493	38842	0.358	0.960	NA
Onroad	Worker Trips-Paved Roads	G	6	125	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA	237.365	22.275	23.847	0.379	17.542	5.212	34829	1.762	1.999	NA
Dust	Treated Area (acres) --> (acres)		0.25	125	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	312.500	31.250	NA	NA	NA	NA
Totals For No. 1					**13.541**	**1.017**	**5.789**	**0.010**	**3.472**	**0.806**	**942**	**0.031**	**0.083**	**16.998**	**1692.675**	**127.130**	**723.602**	**1.299**	**434.012**	**100.740**	**117721**	**3.881**	**10.383**	**2124.689**

2. Claremont Canyon Stonewall/Panoramic			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
New staging area for public access																								
Offroad	Skid Steer Loaders	D	2	70	5.913	0.095	0.145	0.001	0.005	0.004	63	0.012	0.005	3.741	413.890	6.624	10.165	0.053	0.335	0.309	4379	0.812	0.372	261.874
Onroad	Dump Truck Trips-Paved Roads	D	1	70	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	28.315	6.251	154.309	0.210	30.354	10.356	21751	0.200	0.538	NA
Onroad	Worker Trips-Paved Roads	G	4	70	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	88.616	8.316	8.903	0.141	6.549	1.946	13003	0.658	0.746	NA
Dust	Treated Area (acres) --> (acres)		0.25	70	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	175.000	17.500	NA	NA	NA	NA
Totals For No. 2					**7.583**	**0.303**	**2.477**	**0.006**	**3.032**	**0.430**	**559**	**0.024**	**0.024**	**3.741**	**530.822**	**21.191**	**173.377**	**0.404**	**212.239**	**30.111**	**39133**	**1.671**	**1.655**	**261.874**

3. I-80/San Pablo Dam Road			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Interchange improvements																								
Offroad	Tractors/Loaders/Backhoes	D	1	375	1.073	0.211	1.388	0.002	0.116	0.107	157	0.000	0.019	7.198	402.389	79.188	520.571	0.692	43.675	40.181	58987	0.000	7.145	2699.228
Offroad	Rubber Tired Loaders	D	1	375	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	477.509	111.645	691.869	0.795	60.393	55.562	67755	0.000	10.074	3105.438
Offroad	Air Compressors	D	3	375	5.409	0.144	0.106	0.000	0.076	0.069	9	0.011	0.008	0.936	2028.541	54.057	39.733	0.096	28.329	26.062	3379	4.210	3.023	350.911
Offroad	Concrete/Industrial Saws	D	4	375	15.505	0.403	0.297	0.001	0.217	0.200	26	0.024	0.023	2.686	5814.354	151.259	111.302	0.277	81.555	75.031	9729	9.109	8.487	1007.291
Offroad	Cranes	D	1	375	1.457	0.370	2.219	0.002	0.199	0.183	202	0.000	0.033	9.268	546.490	138.815	832.080	0.889	74.449	68.493	75751	0.000	12.525	3475.438
Offroad	Generator Sets	D	3	375	3.070	0.073	0.045	0.000	0.003	0.002	5	0.004	0.004	0.522	1151.163	27.257	16.976	0.053	0.985	0.906	1865	1.633	1.524	195.706
Offroad	Other Construction Equipment	D	3	375	0.402	0.077	0.480	0.001	0.019	0.017	66	0.000	0.007	3.006	150.669	28.724	179.881	0.384	6.979	6.421	24676	0.000	2.592	1127.084
Offroad	Pavers	D	1	375	1.326	0.364	2.191	0.002	0.191	0.176	181	0.000	0.033	8.328	497.066	136.356	821.443	0.798	71.659	65.926	68015	0.000	12.303	3123.165
Offroad	Paving Equipment	D	1	375	2.104	0.055	0.040	0.000	0.029	0.027	4	0.004	0.003	0.364	788.875	20.504	15.029	0.038	11.055	10.171	1319	1.336	1.151	136.602
Offroad	Skid Steer Loaders	D	2	375	5.913	0.095	0.145	0.001	0.005	0.004	63	0.012	0.005	3.741	2217.269	35.485	54.454	0.285	1.797	1.653	23458	4.353	1.992	1402.899
Offroad	Rollers	D	2	375	1.793	0.435	2.760	0.003	0.236	0.217	260	0.000	0.039	11.932	672.512	163.226	1035.046	1.145	88.328	81.262	97636	0.000	14.728	4474.315
Offroad	Crawler Tractors	D	1	375	1.599	0.426	2.530	0.003	0.223	0.205	217	0.000	0.038	9.948	599.666	159.657	948.916	0.953	83.616	76.927	81242	0.000	14.406	3730.369
Offroad	Asphalt Pavers	D	1	375	10.885	0.284	0.183	0.000	0.144	0.132	17	0.011	0.016	1.830	4081.971	106.621	68.650	0.163	53.871	49.561	6426	4.132	5.977	686.333
Offroad	Welders	D	2	375	4.705	0.129	0.076	0.000	0.061	0.056	7	0.006	0.007	0.785	1764.203	48.299	28.504	0.069	22.820	20.995	2725	2.197	2.701	294.366
Onroad	Dump Truck Trips-Paved Roads	D	4	375	1.618	0.357	8.818	0.012	1.735	0.592	1243	0.011	0.031	NA	606.757	133.945	3306.621	4.492	650.447	221.922	466102	4.291	11.518	NA
Onroad	Worker Trips-Paved Roads	G	20	375	6.330	0.594	0.636	0.010	0.468	0.139	929	0.047	0.053	NA	2373.645	222.753	238.473	3.790	175.424	52.124	348293	17.618	19.985	NA
Dust	Treated Area (acres) --> (acres)		5	375	NA	NA	NA	NA	50.000	5.000	NA	NA	NA	NA	NA	NA	NA	NA	18750.000	1875.000	NA	NA	NA	NA
Totals For No. 3					**64.462**	**4.314**	**23.759**	**0.040**	**53.881**	**7.275**	**3566**	**0.130**	**0.347**	**68.824**	**24173.080**	**1617.793**	**8909.546**	**14.919**	**20205.382**	**2728.195**	**1337360**	**48.880**	**130.129**	**25809.145**

4. Lake Chabot West Shore Trail			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Asphalt pavement repairs																								
Offroad	Skid Steer Loaders	D	2	30	5.913	0.095	0.145	0.001	0.005	0.004	63	0.012	0.005	3.741	177.382	2.839	4.356	0.023	0.144	0.132	1877	0.348	0.159	112.232
Offroad	Asphalt Pavers	D	2	30	21.771	0.569	0.366	0.001	0.287	0.264	34	0.022	0.032	3.660	653.115	17.059	10.984	0.026	8.619	7.930	1028	0.661	0.956	109.813
Offroad	Rollers	D	2	30	1.793	0.435	2.760	0.003	0.236	0.217	260	0.000	0.039	11.932	53.801	13.058	82.804	0.092	7.066	6.501	7811	0.000	1.178	357.945
Onroad	Dump Truck Trips-Paved Roads	D	1	30	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	12.135	2.679	66.132	0.090	13.009	4.438	9322	0.086	0.230	NA
Onroad	Worker Trips-Paved Roads	G	4	30	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	37.978	3.564	3.816	0.061	2.807	0.834	5573	0.282	0.320	NA
Dust	Treated Area (acres) --> (acres)		0.25	30	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	75.000	7.500	NA	NA	NA	NA
Totals For No. 4					**31.147**	**1.307**	**5.603**	**0.010**	**3.555**	**0.911**	**854**	**0.046**	**0.095**	**19.333**	**934.411**	**39.199**	**168.092**	**0.291**	**106.645**	**27.335**	**25610**	**1.377**	**2.844**	**579.990**

5. Miller-Knox Regional Shoreline			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Trail gap completion and new trail construction																								
Offroad	Skid Steer Loaders	D	2	30	5.913	0.095	0.145	0.001	0.005	0.004	63	0.012	0.005	3.741	177.382	2.839	4.356	0.023	0.144	0.132	1877	0.348	0.159	112.232
Onroad	Worker Trips-Paved Roads	G	4	30	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	37.978	3.564	3.816	0.061	2.807	0.834	5573	0.282	0.320	NA
Dust	Treated Area (acres) --> (acres)		0.25	30	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	75.000	7.500	NA	NA	NA	NA
Totals For No. 5					**7.179**	**0.213**	**0.272**	**0.003**	**2.598**	**0.282**	**248**	**0.021**	**0.016**	**3.741**	**215.360**	**6.403**	**8.172**	**0.083**	**77.951**	**8.466**	**7449**	**0.630**	**0.479**	**112.232**

6. Shepard Canyon			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Fuel management by modification of vegetation																								
Offroad	Skid Steer Loaders	D	1	125	2.956	0.047	0.073	0.000	0.002	0.002	31	0.006	0.003	1.871	369.545	5.914	9.076	0.048	0.299	0.276	3910	0.725	0.332	233.817
Offroad	Chainsaws	D	2	125	0.007	0.002	0.000	0.000	0.000	0.000	0	0.000	0.000	0.002	0.816	0.204	0.006	0.000	0.004	0.003	2	0.003	0.013	0.196
Onroad	Worker Trips-Paved Roads	G	4	125	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	158.243	14.850	15.898	0.253	11.695	3.475	23220	1.175	1.332	NA
Dust	Treated Area (acres) --> (acres)		0.25	125	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	312.500	31.250	NA	NA	NA	NA
Totals For No. 6					**4.229**	**0.168**	**0.200**	**0.002**	**2.596**	**0.280**	**217**	**0.015**	**0.013**	**1.872**	**528.604**	**20.969**	**24.980**	**0.300**	**324.498**	**35.004**	**27131**	**1.903**	**1.677**	**234.012**

7. Tilden - Golden Gate Live Steamers			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Construction of visitors station																								
Offroad	Skid Steer Loaders	D	1	60	2.956	0.047	0.073	0.000	0.002	0.002	31	0.006	0.003	1.871	177.382	2.839	4.356	0.023	0.144	0.132	1877	0.348	0.159	112.232
Offroad	Air Compressors	D	1	60	1.803	0.048	0.035	0.000	0.025	0.023	3	0.004	0.003	0.312	108.189	2.883	2.119	0.005	1.511	1.390	180	0.225	0.161	18.715
Onroad	Worker Trips-Paved Roads	G	4	60	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	75.957	7.128	7.631	0.121	5.614	1.668	11145	0.564	0.640	NA
Dust	Treated Area (acres) --> (acres)		0.25	60	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	150.000	15.000	NA	NA	NA	NA
Totals For No. 7					**6.025**	**0.214**	**0.235**	**0.002**	**2.621**	**0.303**	**220**	**0.019**	**0.016**	**2.182**	**361.527**	**12.850**	**14.107**	**0.149**	**157.268**	**18.190**	**13202**	**1.137**	**0.960**	**130.947**

8. Tilden Environmental Education Center			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Improvements to sanitary sewer system.																								
Offroad	Tractors/Loaders/Backhoes	D	1	125	1.073	0.211	1.388	0.002	0.116	0.107	157	0.000	0.019	7.198	134.130	26.396	173.524	0.231	14.558	13.394	19662	0.000	2.382	899.743
Offroad	Rubber Tired Loaders	D	1	125	1.273	0.298	1.845	0.002	0.161	0.148	181	0.000	0.027	8.281	159.170	37.215	230.623	0.265	20.131	18.521	22585	0.000	3.358	1035.146
Offroad	Air Compressors	D	1	125	1.803	0.048	0.035	0.000	0.025	0.023	3	0.004	0.003	0.312	225.393	6.006	4.415	0.011	3.148	2.896	375	0.468	0.336	38.990
Offroad	Concrete/Industrial Saws	D	1	125	3.876	0.101	0.074	0.000	0.054	0.050	6	0.006	0.006	0.672	484.530	12.605	9.275	0.023	6.796	6.253	811	0.759	0.707	83.941
Offroad	Cement and Mortar Mixers	D	1	125	0.860	0.027	0.013	0.000	0.011	0.010	1	0.001	0.002	0.142	107.492	3.421	1.616	0.005	1.329	1.223	162	0.169	0.192	17.808
Offroad	Welders	D	1	125	2.352	0.064	0.038	0.000	0.030	0.028	4	0.003	0.004	0.392	294.034	8.050	4.751	0.012	3.803	3.499	454	0.366	0.450	49.061
Onroad	Dump Truck Trips-Paved Roads	D	1	125	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	50.563	11.162	275.552	0.374	54.204	18.493	38842	0.358	0.960	NA
Onroad	Worker Trips-Paved Roads	G	6	125	1.899	0.178	0.191	0.003	0.140	0.042	279	0.014	0.016	NA	237.365	22.275	23.847	0.379	17.542	5.212	34829	1.762	1.999	NA
Dust	Treated Area (acres) --> (acres)		0.25	125	NA	NA	NA	NA	2.500	0.250	NA	NA	NA	NA	NA	NA	NA	NA	312.500	31.250	NA	NA	NA	NA
Totals For No. 8					**13.541**	**1.017**	**5.789**	**0.010**	**3.472**	**0.806**	**942**	**0.031**	**0.083**	**16.998**	**1692.675**	**127.130**	**723.602**	**1.299**	**434.012**	**100.740**	**117721**	**3.881**	**10.383**	**2124.689**

9. Tilden Regional Golf Course			No. of Units	Total	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel	or No. of Trips	No. of Days	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Modification of Wildcat Creek																								
Offroad	Skid Steer Loaders	D	2	70	5.913	0.095	0.145	0.001	0.005	0.004	63	0.012	0.005	3.741	413.890	6.624	10.165	0.053	0.335	0.309	4379	0.812	0.372	261.874
Offroad	Tractors/Loaders/Backhoes	D	1	70	1.073	0.211	1.388	0.002	0.116	0.107	157	0.000	0.019	7.198	75.113	14.782	97.173	0.129	8.153	7.500	11011	0.000	1.334	503.856
Onroad	Dump Truck Trips-Paved Roads	D	1	70	0.405	0.089	2.204	0.003	0.434	0.148	311	0.003	0.008	NA	28.315	6.251	154.309	0.210	30.354	10.356	21751	0.200	0.538	NA
Onroad	Worker Trips-Paved Roads	G	4	70	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	88.616	8.316	8.903	0.141	6.549	1.946	13003	0.658	0.746	NA
Dust	Treated Area (acres) --> (acres)		5	70	NA	NA	NA	NA	50.000	5.000	NA	NA	NA	NA	NA	NA	NA	NA	3500.000	350.000	NA	NA	NA	NA
Totals For No. 9					**8.656**	**0.514**	**3.865**	**0.008**	**50.648**	**5.287**	**716**	**0.024**	**0.043**	**10.939**	**605.934**	**35.973**	**270.550**	**0.534**	**3545.391**	**370.111**	**50144**	**1.671**	**2.989**	**765.730**

10. University of Califorina, Berkeley

Long-range plan for expansion of Hill Campus facilities

This project has not been scheduled, and is currently too speculative to be addressed quantitatively.

11. EBMUD			No. of Units or No. of Trips	Total No. of Days	Emission Rates (lbs/day), based on 8 hrs/day									(gal/day)	Activity Total Emission (lbs)									(gal)
Activity	Equipment Type	Fuel			CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	Fuel
Selective removal of 1000 eucalyptus trees per yea		r																						
Offroad	Air Compressors	G	1	125	2.684	0.073	0.054	0.000	0.037	0.034	4	0.006	0.004	0.464	335.533	9.142	6.717	0.016	4.680	4.306	558	0.704	0.511	58.050
Offroad	Chainsaws	G	1	125	0.200	0.111	0.002	0.000	0.000	0.000	1	0.001	0.007	0.066	25.015	13.831	0.217	0.003	0.039	0.036	68	0.112	0.860	8.270
Offroad	Chainsaws Preempt	G	1	125	0.484	0.267	0.004	0.000	0.001	0.001	1	0.001	0.017	0.160	60.473	33.435	0.525	0.007	0.095	0.088	163	0.180	2.078	19.992
Offroad	Chippers/Stump Grinders	D	1	125	0.686	0.177	2.141	0.003	0.066	0.061	310	0.000	0.016	14.039	85.793	22.134	267.624	0.380	8.297	7.633	38749	0.000	1.997	1754.901
Offroad	Fellers/Bunchers	D	1	125	1.516	0.472	4.544	0.009	0.144	0.133	783	0.000	0.043	35.428	189.544	58.965	567.969	1.101	18.029	16.587	97814	0.000	5.320	4428.502
Offroad	Skidders	D	1	125	3.653	0.519	4.116	0.007	0.229	0.210	635	0.000	0.047	28.969	456.605	64.912	514.480	0.894	28.583	26.296	79437	0.000	5.857	3621.101
Onroad	Worker Trips-Paved Roads	G	4	125	1.266	0.119	0.127	0.002	0.094	0.028	186	0.009	0.011	NA	158.243	14.850	15.898	0.253	11.695	3.475	23220	1.175	1.332	NA
Onroad	Log/Chip Haul Truck Trips-Paved Road	D	1	50	1.037	0.230	4.137	0.006	0.849	0.311	578	NA	NA	NA	51.846	11.490	206.869	0.279	42.464	15.536	28904	NA	NA	NA
Totals For No. 11					**2.303**	**0.349**	**4.265**	**0.008**	**0.943**	**0.339**	**764**	**0.009**	**0.011**	**0.000**	**1363.053**	**228.759**	**1580.300**	**2.931**	**113.883**	**73.957**	**268912**	**2.170**	**17.955**	**9890.816**

GRAND TOTAL - CUMULATIVE ACTIONS NOT DIRECTLY RELATED TO FUEL REDUCTION, LBS	32098.14	2237.40	12596.33	22.21	25611.28	3492.85	2004384	67.20	179.46	42034
GRAND TOTAL - CUMULATIVE ACTIONS NOT DIRECTLY RELATED TO FUEL REDUCTION, TONS or METRIC TONS	**16.049**	**1.119**	**6.298**	**0.011**	**12.806**	**1.746**	**909.169**	**0.030**	**0.081**	**21.017**

CUMULATIVE ACTIONS NOT DIRECTLY RELATED TO FUEL REDUCTION - Summary

		Activity Total Emission (tons)						Activity Total (metric tons)			
Facility	Project	CO	VOC	NOx	SOx	PM10	PM2.5	CO2	N2O	CH4	CO2eq
1. Anthony Chabot Equestrian Center	Connection of facility to sanitary sewer.	0.85	0.06	0.36	0.00	0.22	0.05	53.40	0.002	0.005	54.04
2. Claremont Canyon Stonewall/Panoramic	New staging area for public access	0.27	0.01	0.09	0.00	0.11	0.02	17.75	0.001	0.001	18.00
3. I-80/San Pablo Dam Road	Interchange improvements	12.09	0.81	4.45	0.01	10.10	1.36	606.61	0.022	0.059	614.73
4. Lake Chabot West Shore Trail	Asphalt pavement repairs	0.47	0.02	0.08	0.00	0.05	0.01	11.62	0.001	0.001	11.84
5. Miller-Knox Regional Shoreline	Trail gap completion and new trail construction	0.11	0.00	0.00	0.00	0.04	0.00	3.38	0.000	0.000	3.47
6. Shepard Canyon	Fuel management by modification of vegetation	0.26	0.01	0.01	0.00	0.16	0.02	12.31	0.001	0.001	12.59
7. Tilden - Golden Gate Live Steamers	Construction of visitors station	0.18	0.01	0.01	0.00	0.08	0.01	5.99	0.001	0.000	6.16
8. Tilden Environmental Education Center	Improvements to sanitary sewer system.	0.85	0.06	0.36	0.00	0.22	0.05	53.40	0.002	0.005	54.04
9. Tilden Regional Golf Course	Modification of Wildcat Creek	0.30	0.02	0.14	0.00	1.77	0.19	22.74	0.001	0.001	23.01
10. University of Califorina, Berkeley	Long-range plan for expansion of Hill Campus facilities	Not calculated, no schedule - too speculative at this time.						Not calculated - too speculative			
11. EBMUD	Selective removal of 1000 eucalyptus trees per year	0.68	0.11	0.79	0.00	0.06	0.04	121.98	0.001	0.008	122.45
TOTALS		16.05	1.12	6.30	0.01	12.81	1.75	**909.17**	**0.030**	**0.081**	**920.33**

Category	Total Emission (tons)					
	CO	VOC	NOx	SOx	PM10	PM2.5
Other Cumulative Actions						
Offroad	13.89	0.86	3.90	0.01	0.41	0.38
Onroad	2.16	0.26	2.40	0.01	0.57	0.19
Dust	-	-	-	-	11.83	1.18
Burn	-	-	-	-	-	-
Cumulative Actions Totals	**16.05**	**1.12**	**6.30**	**0.01**	**12.81**	**1.75**

Total Emissions (metric tons)			
CO_2	N_2O	CH_4	CO_2eq
392.89	0.02	0.06	399.21
516.28	0.01	0.02	521.12
-	-	-	-
-	-	-	-
909.17	**0.03**	**0.08**	**920.33**

APPENDIX E IMPORTANT VIEWPOINTS MAPS AND SURVEY LOGS

General	
Date: 2/8/11	**Time:** 14:00
Critical Public View	
CPV ID: CPV1	**Location:** Car pull-off from Grizzly Peak Blvd of Panoramic view of bay, Strawberry Canyon, and City.
Proximity to Proposed Action (miles): Superior position above Strawberry Canyon (approx. 10-feet from beginning of treatment unit). Treatment unit is w/in foreground.	**Angle of Observation:** In front of viewing position (~25-degrees to 35-degrees down).
Duration of View: Variable. Transient for bikers & drivers. Prolonged for people parking to enjoy the view.	**View Classification:** Class of Views
Landscape Type: Panoramic	**Landscape Analysis Factors:** Expansive Scale, Contrast (natural landscape in fore- and mid-ground, and city scape and bay in background).
Visual Sensitivity	
Level: High **Indicators:** Recreators. Treatment unit is adjacent to road used to access numerous recreation areas and designated scenic turnout that is heavily used by people to look at the view of the bay.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills; Steep; Prominent; Concave; River valley (stream not visible); Angular jagged silhouette of mountains at skyline; Water prominent in view (edge of water ~ 5 miles)	Amorphous; Contiguous; Groups of trees, Linear; Amebic (grassy areas); Directional	Rectangular; institutional; Isolated; Cubic (UCB buildings); Linear (roads); Transmission Lines
Line	Horizontal lines	Flowing; Contiguous; Converging	Horizontal (buildings); Vertical (trunks); Bold; Angular; Gossimer (transmission lines)
Color	N/A (masked by veg)	Mosaic of greens (blue-green, emerald, spring)	Contrasting Values; Greyish; Chroma
Texture	N/A (masked by veg)	Feathery (Euc. Canopies); Smooth; Medium	Coarse; Rough; Smooth (buildings)
Pattern/ Distribution	Convergent	Clumped distribution of veg; Lines at drainages	Isolated; Intentional

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Predominately natural landscape, structure glare exists (at 15:00). Structures noticeable w/o being pointed out, but subordinate over entire view. Some encroachment of structures in natural landscape which are likely more noticeable in the afternoon.	**Coherence (Unity)[1]**: 1 – Coherent mosaic of color, line, texture. Natural and irregular distribution (unplanned distribution).
Visual Access: Unimpeded access to panoramic views.	**VMC:** 1
Notes	
Numerous different people visiting the CPV to look at view of bay.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/8/11	**Time:** 16:30

Critical Public View	
CPV ID: CPV2	**Location:** On trail at staircase access point, adjacent to Summit Road across from residences.
Proximity to Proposed Action (miles): Within treatment unit, contains views of other distant treatment units.	**Angle of Observation:** Horizontal.
Duration of View: Indeterminate. Transient view for hikers.	**View Classification:** Continuum of views
Landscape Type: Framed	**Landscape Analysis Factors:** Framed view; Trending towards focal; Line of the path draws views.

Visual Sensitivity
Level: High **Indicators:** Recreators on trail; Residences directly across Summit Street have views of area.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Moderate peaks & valleys covered with vegetation; Rolling landscape in foreground.	Large, mature trees (pine, eucalyptus) Detail landscape; distinct; definite.	High-density residential homes across street. Street to the west. Golf course to the east (not in view). Trail through treatment unit.
Line	Diagonal ridges; skyline is shaped by vegetation.	Predominately vertical tree trunks; Tall; regular	Homes - rectilinear; horizontal – trail & street. Serpentine – trail.
Color	N/A	Green mosaic (gray, spring). Contrasting	Brown, greyish; Wood construction homes blends with surrounding landscape. Trail is brown.
Texture	N/A	Soft – grass and tree canopy; Rough – tree trunks; Contrasting between trunks, leaves & needles in foreground; Texture more even in background.	Path – granular; Structures - smooth
Pattern/ Distribution	Natural	Irregular distribution in groves of different species.	Regular siting; small lots; high-density residential.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Border of different land types – natural, park-like setting; disturbed (residential).	**Coherence (Unity)[1]**: 1 – No distracting disturbance of features in the landscape.
Visual Access: Access via trail, road, and residences across street.	**VMC:** 1

Notes
Uni-directional experience. Framed view.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/9/11	**Time:** 11:00
Critical Public View	
CPV ID: CPV3	**Location:** Upper parking lot pull-out above Lake Chabot
Proximity to Proposed Action (miles): Within treatment unit.	**Angle of Observation:** 360-degrees
Duration of View: Varies from prolonged (resident) to transient (recreators).	**View Classification:** Class of views
Landscape Type: Panoramic	**Landscape Analysis Factors:** Contrast (natural landscape & houses); expansive scale.
Visual Sensitivity	
Level: High **Indicators:** Recreators and residents in nearby hills.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Predominately rolling hills	Mosaic of predominately shrubs with dispersed patches of trees; patches of open grassland.	High-density residential; Communication tower; trails.
Line	Variable; diagonal (predominately); undulating ridgetops.	Lines of trees in micro-depressions & drainages; some small patches of trees.	Variable; Linear (trails); Rectangular (buildings).
Color	N/A	Mosaic of greens; Grey (dead brush).	Mosaic of browns; grey
Texture	N/A	Soft	Smooth
Pattern/ Distribution	Natural	Clumped; Linear	Planned community; clumped along south & west side.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2	**Coherence (Unity)[1]**: 1
Visual Access: Access via trails & road.	**VMC:** 2
Notes	
Northwest portion of treatment unit borders contiguous stand of trees.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/9/11	**Time:** 12:00
Critical Public View	
CPV ID: CPV4	**Location:** Chabot Golf Course Club House
Proximity to Proposed Action (miles): ~ 2,000 ft	**Angle of Observation:** Variable when recreating. Directly in front of club house terrace.
Duration of View: Variable. Transient when recreating; Prolonged when sitting on terrace.	**View Classification:** Unique
Landscape Type: Enclosed	**Landscape Analysis Factors:** Contrast between putting green & natural landscape (project area) behind. Visible sequence in transmission towers. En-framement from vegetation (trees).
Visual Sensitivity	
Level: High **Indicators:** Recreators.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling; Prominent ridgelines; Apparent drainages.	Variable from maintained putting green (foreground) to natural vegetation (background)	Transmission lines; Putting greens/fairways; Buildings; Roads; Paths
Line	Undulating silhouette of ridgeline; distinct horizontal line of putting green drainages are diagonal.	Horizontal putting green; Curvilinear fairways	
Color	N/A	Mosaic of greens	Grey – roads, paths, fence, transmission lines. White – building Reds – building (brick, terra cotta roof of club house)
Texture	N/A	Soft; Continuous; Medium	Smooth; Hard
Pattern/ Distribution	Natural	Natural golf course has manicured vegetation.	Intentional – golf course; Sequential - transmission lines.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Contrast between golf course areas & surrounding landscape. Eyes drawn to natural vegetation in background/middleground.	**Coherence (Unity)[1]**: 2
Visual Access: Access via walkways and golf course	**VMC:** 2
Notes	
Highly disturbed (man-made) foreground. Developed recreation site. Two different types of recreation: passive (sitting on terrace) & active (golfing).	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/9/11	**Time:** 15:00
Critical Public View	
CPV ID: CPV5	**Location:** Redwood Park at intersection of Golden Spike Trail and Tate Trail
Proximity to Proposed Action (miles): Within treatment area	**Angle of Observation:**
Duration of View: Transient (hikers, equestrians)	**View Classification:** Continuum of views
Landscape Type: Enclosed in background; Enframement in mid- and foreground by surrounding trees.	**Landscape Analysis Factors:** Some contrast between stables & natural area.
Visual Sensitivity	
Level: High **Indicators:** Recreators.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Steep canyons & valley bottom	Predominately mature conifer and eucalyptus forest; Patches of grass near stables.	Stables; residence; auxillary buildings; trails; access road; stable is a focal point when walking on trail.
Line	Predominately diagonal	Vertical trunks; diagonal to flowing branches	Characteristic of rural buildings; gentle sloping roof; horizontal sides of structures. Trails – curving, directional.
Color	N/A	Mosaic of green	Trails – brown; Stable – grey/green. Road – grey.
Texture	N/A	Medium: Soft; Order; Contrast between trees (natural landscape & grass near stables)	Building – Smooth; Trails – Coarse.
Pattern/ Distribution	Natural	Natural	Rural Landscape & park-like

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Structure is a focal point, but very park-like setting since structure has color and look of a park structure. Aesthetic is fitting with predominant land use/aesthetic.	**Coherence (Unity)[1]**: 2
Visual Access: Access via trails. Road is approx. 100 yards from trail access.	**VMC:** 2
Notes	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/9/11	**Time:** 15:45
Critical Public View	
CPV ID: CPV6	**Location:** Redwood Park at Burton Road access point.
Proximity to Proposed Action (miles): Within treatment area	**Angle of Observation:** Direct (residents); Variable (recreators)
Duration of View: Transient (recreators); Prolonged (residents)	**View Classification:** Continuum of views
Landscape Type: Enframed (proximate locations); Panoramic Backdrop	**Landscape Analysis Factors:** Some contrast between homes & natural area. Variations of scale depending on if you are looking at/around trail or looking at view.
Visual Sensitivity	
Level: High **Indicators:** Residents & Recreators.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Valleys & ridgelines; drainages converging in lower basin.	Mature coniferous forest; open understory of grasses, shrubs; compatible	Residential homes; trails; road
Line	Diagonal ridges; Curving basins; Gently flowing	Vertical trunks (predominately); Some diagonal branches; softer/continuous lines of grasses/understory	Rectangular homes with diagonal roofs; Winding trails
Color	N/A	Mosaic of green; grey/brown tree trunks	Residences – variable (can mostly see grey roofs); Trails - brown
Texture	N/A		
Pattern/ Distribution	Natural	Natural	Ordered; Residential neighborhood; Trail – natural, following ridgeline.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Yellow fire road is apparent, but not dominant. Residences are adjacent to parkland. Wind farm visible in distance. Overall nice park-like setting.	**Coherence (Unity)[1]**: 2
Visual Access: Access via roads and trails	**VMC:** 2
Notes	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/9/11	**Time:** 16:30
Critical Public View	
CPV ID: CPV7	**Location:** Redwood Park on West Ridge Trail.
Proximity to Proposed Action (miles): Within treatment area	**Angle of Observation:** Variable, predominately 45-degrees – 90-degrees
Duration of View: Transient (hikers/bikers); People may pause for a longer view due to opening of view.	**View Classification:** Unique – although it may represent a class of views if there are other openings of the view along the trail
Landscape Type: Enclosed in background; Enframement in mid- and foreground by surrounding trees.	**Landscape Analysis Factors:** Enframement; Convergence (eyes tend to follow the valley down)
Visual Sensitivity	
Level: High **Indicators:** Recreators	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Ridges with valley in between	Predominately mature forest (eucalyptus, pines, bays); Some exposed grass; bays are oval/spherical shaped.	Road – on horizontal plan cut into natural topo; trail
Line	Diagonal horizontal ridge	Vertical trunks; diagonal branches; oval, spherical bays	Curving; Horizontal
Color	N/A	Mosaic of greens; Some green/yellow in eucalyptus foliage; Brown/greys – tree trunks; Brown grass	Light Brown
Texture	N/A	Soft; smooth (Eucalyptus & bays); Dense; Some order (different tree types have different textures)	Rough
Pattern/ Distribution	Natural pattern of valleys/drainages	Natural	Purposeful; Directional

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – No structures other than trails visible; Very natural, forest-like, open space feel; Very separate from man-made surroundings.	**Coherence (Unity)[1]**: 1
Visual Access: Trails; Road access to trailhead approx. 1,000 feet from viewing point.	**VMC:** 1
Notes	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 8:30
Critical Public View	
CPV ID: CPV8	**Location:** Behind residences just off of a spur road off of Stonewall Road (EBRPD plot)
Proximity to Proposed Action (miles): Immediately adjacent to treatment area	**Angle of Observation:** View of residents adjacent to park is variable, up to a 180-degree depending on location.
Duration of View: Prolonged (residents)	**View Classification:** Class of views.
Landscape Type: Enclosed	**Landscape Analysis Factors:** High (tall) scale due to tall eucalyptus trees in fore- and middle-ground.
Visual Sensitivity	
Level: High **Indicators:** Residents (primary) Recreators (would see it when they are entering park).	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills; Prominent drainages; Steep; Distinct pyramids of ridges; Horizontal orientation of trails.	Tall, mature eucalyptus forest; Distinct parallel lines.	Houses adjacent to park trail within park. Road up to park. Water tower visible in periphery
Line	Diagonal ridges; Conical horizontal ridgelines.	Predominantly vertical trunks; Some diagonal branches.	Trail – diagonal & horizontal lines. Houses – rectangular with diagonal roofs, vertical sides; Roads – horizontal, gently curving. Water tower – cylindrical/
Color	N/A	Grey, brown trunks; Isolated patches of dark green in drainages; Eucalyptus foliage – greenish yellow.	Mosaic of browns, Natural earthen tones. Water tower – grey.
Texture	N/A	Smooth grass; Feathery Eucalyptus; Striated; Leaves – soft; Branches – rough.	Variable – structures are natural wood. Water tower – smooth.
Pattern/ Distribution	Natural	Natural look – but human interaction evident due to post-thinning and fuel break.	Planned residential areas; Trails create a park-like setting.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Due to structures, and water tower in peripheral.	**Coherence (Unity)[1]**: 2
Visual Access: Trails through park; Residents can walk into park; Road access to park.	**VMC:** 2
Notes	
View point represents views from residences adjacent to park.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 10:00
Critical Public View	
CPV ID: CPV9	**Location:** Within park in Claremont Canyon (EBRPD) on trail (old fire road).
Proximity to Proposed Action (miles): Within treatment area	**Angle of Observation:** Variable for hikers/runners – ranges from being inside forest to viewpoints.
Duration of View: Transient (hikers/runners); People may pause for a longer view of Bay.	**View Classification:** Class of views.
Landscape Type: Foreground enclosure; Background panoramic.	**Landscape Analysis Factors:** Panoramic; Enclosure; Variable contrasting scale; Foreground – smaller scale; Background – larger scale.
Visual Sensitivity	
Level: High **Indicators:** Hikers; Runners; Bikers	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Steep canyons; Hillside	Tall, mature eucalyptus; Grass; Shrubs	Trail
Line	Diagonal; Horizontal; Curving at top of drop-off; vista-like	Vertical lines of tall, mature eucalyptus trunks; Finer vertical & diagonal lines of branches; Grass is soft, with flowing line that mimics topography.	Curving trial
Color	N/A	Green mosaic – green canopy demands attention; Leaves are yellow-green; Grey/brown trunks.	Tannish-grey
Texture	N/A	Grass – soft; Tree leaves – soft/smooth; Tree Branches – brittle; Trunks – smooth.	Rough
Pattern/ Distribution	Natural	Natural	Intentional; Directional

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Feels natural; Some minor encroachment. Structures in periphery do not demand attention.	**Coherence (Unity)[1]**: 1 – Trail is coherently arrayed with prominent landform and natural setting of park.
Visual Access: Trails through park; Road access to trail and access to trail from residences adjacent to park.	**VMC:** 2
Notes	
During our visit, a recreator set up a chair near the CPV to sit and look at the view.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 9:30
Critical Public View	
CPV ID: CPV10	**Location:** On trail within Claremont Canyon Park. Looking down over Bay to the west and park to both the west and east.
Proximity to Proposed Action (miles): Above treatment unit by approx. 100 yards	**Angle of Observation:** Approximately 180-degrees – but variable as hikers/runners move down the trail.
Duration of View: Transient (hikers/runners); People may pause for a longer view.	**View Classification:** Class of views.
Landscape Type: Predominantly panoramic, but eucalyptus adds and element of enclosure and enframement.	**Landscape Analysis Factors:** Panoramic; Enframement from eucalyptus; Expansive Scale.
Visual Sensitivity	
Level: High **Indicators:** Hikers; Runners	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling, but above steep canyon	Shrub dominated community with isolated patches of eucalyptus; Forms are contrasting shrubs against trees.	Trail – Fore- and mid-ground; Cityscape and bay – background.
Line	Curving; Flowing horizontal topo & ridge; Rolling silhouette of San Francisco beyond the bay.	Vertical tree trunks; Circular patterns of shrubs; Diagonal tree branches; Continuous; Undulating line at top of shrubs.	Trail – Curving & directional.
Color	N/A	Mosaic of greens; Lot of brown/grey from shrubs and tree trunks.	Trail – Light brown
Texture	N/A	Tree trunks – smooth; Shrubs – brittle	Trail – rough
Pattern/ Distribution	Natural	Ordered – Area appears to have been cleared	Intentional

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Area maintains natural "feel" but it is apparent it has been modified by thinning. Shrubs and trees contrast and give it a relatively "unharmonious" feel. Trail demands attention.	**Coherence (Unity)[1]**: 3 – Trees are in foreground and "in your face" commanding attention. Eyes go back and forth between trees and bay.
Visual Access: Trails (old fire road). Trail is accessed via streets and residences living adjacent to park.	**VMC:** 3
Notes	
Heavy use area.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 11:00

Critical Public View	
CPV ID: CPV11	**Location:** Pull-off of Grizzly Peak Blvd; Overlooking treatment area near tunnel.
Proximity to Proposed Action (miles): Immediately adjacent to one treatment area, and treatment near tunnel entrance approx. 0.5 mile as the crow flies.	**Angle of Observation:** Variable when driving (~ 90-degrees)
Duration of View: Transient (driving); Pull-off exists but not expected to be highly utilized as a view point.	**View Classification:** Unique – due to Berkeley fire homes to the north (new homes) & presence of highway.
Landscape Type: Panoramic with some large scale enclosure from San Francisco hills.	**Landscape Analysis Factors:** Panoramic; Feature (San Francisco)

Visual Sensitivity
Level: Moderate **Indicators:** Residential area to the north; presence of highway (visual and noise disturbance) and transmission lines influence level of sensitivity.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Steep hills; Distinct Ridgetops; Flat areas for transmission lines.	Mixture of trees; more shrub-dominated to the northwest and transitions to more tree-dominated as you go south. Treatment area near tunnel is thick eucalyptus grove. Mosaic of round to oval shrubs.	Highway; Houses (high-density residential); Transmission towers and lines.
Line		Vertical /diagonal lines of trees in foreground; treeline in background predominantly pyramidal.	Houses – vertical & horizontal lines; Highway – curving; Transmission towers – predominantly vertical with some horizontal; Substation – mosaic of horizontal; San Francisco – vertical buildings.
Color	N/A	Green mosaic; Some brown/grey in tree trunks.	Grey – houses, buildings, highway; Grey/metallic – transmission towers
Texture	N/A	Foreground – brittle (shrub), smooth pines; Background – smooth and bumpy (treeline)	Smooth
Pattern/ Distribution	Natural	Fore-, middle-ground – random; Background – more natural	Intentional

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 3 – Competing land uses – utilities, residential, open space, cityscape (in background).	**Coherence (Unity)[1]**: 3
Visual Access: Road pull-out. Open & permissible to anyone who wants to stop. Residents have access to view from homes.	**VMC:** 3

Notes

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 12:00

Critical Public View	
CPV ID: CPV12	**Location:** Huckleberry Unit; Volcano Trail next to interpretive volcano sign.
Proximity to Proposed Action (miles): Within treatment unit.	**Angle of Observation:** Variable (walkers, runners)
Duration of View: Transient (hikers/runners); Prolonged (interpretive sign where people are likely to stop).	**View Classification:** Continuum of views.
Landscape Type: Enclosed	**Landscape Analysis Factors:** Some convergence to valley bottom; Enframement from surrounding ridgelines; Moderate scales – views limited predominately to fore- and middleground.

Visual Sensitivity
Level: High **Indicators:** Recreators

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Ridges & valley bottoms; hills.	Predominantly forest with grass and shrubs in foreground; Eucalyptus are younger, mature conifers on ridgetop.	Couple of houses in background; Trail; Interpretive sign community tower in background.
Line	Predominantly diagonal; Some horizontal lines at ridgetops.	Tree line mimics landform vertical trunks eclipsed by tree canopies.	House – rectangle, vertical sides; Communication tower – vertical; Trail – curving, horizontal; Sign – rectangle
Color	N/A	Eucalyptus – yellow/green contrasts with mature, dark green pines.	Trail – grey, dull, paved: Homes – Subtle, saturated
Texture	N/A	Foreground – Some brittle brush/shrub; Background – Soft canopy	Houses – smooth; Trail – some roughness.
Pattern/ Distribution	Natural	Natural contiguous forest canopy in background.	Path – Purposeful, directional; Houses – Random.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Houses are noticeable, but subordinate.	**Coherence (Unity)[1]**: 1 – Houses are tucked in and blend well with landscape.
Visual Access: Trail. Parking lot provides trail access. Interpretive sign located at viewpoint that may encourage people to stop.	**VMC:** 1

Notes
Trail goes in and out of open and shaded areas; Immediate location is fairly open.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 13:45
Critical Public View	
CPV ID: CPV13	**Location:** Claremont Canyon (UC Berkeley), on trail that bisects treatment unit.
Proximity to Proposed Action (miles): Within treatment unit.	**Angle of Observation:** Straight-on, direct (path focuses eye ahead).
Duration of View: Transient (hikers/bikers);	**View Classification:** Continuum of views.
Landscape Type: Enclosed	**Landscape Analysis Factors:** Small scale; Very enclosed by thick eucalyptus forest.
Visual Sensitivity	
Level: High **Indicators:** Recreators	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Steep hillside slope	Predominantly young eucalyptus forest; Brush; Thick understory.	Path
Line	Drainage converging; Diagonal (lines hard to see due to thick understory)	Thin vertical trunks; Round, oval understory; Understory – complex, broken, irregular.	Path – Winding, mimics contours of land form.
Color	N/A	Trunks – brown/grey; Tree foliage – green mosaic; Understory – grey/brown.	Light brown
Texture	N/A	Understory – brittle, rough, sharp; Foliage – glossy, smooth	Rough
Pattern/ Distribution	Natural	Understory – Chaotic, random, irregular, overgrown; Tree trunks – ordered, parallel trunks.	Intentional, directional, natural flow that follows landform. Vegetation around path is coherent with path.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Path is only element of landscape that is not natural, but it fits with natural topography and is not very noticeable. Distinct cuts near trail and channels cut along trail from runoff.	**Coherence (Unity)[1]**: 3 – Understory is co-dominant with tree canopy. Composition of forest indicates previous disturbance (appears to be second or third growth) and has not had time to grow back to natural forest conditions.
Visual Access: Trail. Parking lot provides trail access. Interpretive sign located at viewpoint that may encourage people to stop.	**VMC:** 2
Notes	
Trail through treatment unit. Pull-off is very close to view point (immediately adjacent to area).	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/10/11	**Time:** 15:00

Critical Public View	
CPV ID: CPV14	**Location:** Entrance to Tilden Regional Park on Cannon Road.
Proximity to Proposed Action (miles): Approx. 30 yards from the end of the treatment area and on opposite side of road.	**Angle of Observation:** Directly in front of you.
Duration of View: Transient (drivers, bikers, walkers);	**View Classification:** Unique
Landscape Type: Enclosed	**Landscape Analysis Factors:** Moderate Scale; Enclosed; Enframement (slopes on side of road, park sign)

Visual Sensitivity
Level: High **Indicators:** Recreators entering the park.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Peak; Valleys; Ridgetops	Large, mature eucalyptus forest; Rounded on top of vertical lines.	Road and park sign.
Line	Diagonal; Ridgetop; Jagged.	Some vertical lines apparent; Weak lines in individual trees that combine to create one undulating treetop silhouette.	Road – curving; Axis Sign - Rectangular
Color	N/A	Mosaic of greens; Some white flowering shrub-like trees in foreground light brown/grey trunks.	Road – grey; Sign - brown
Texture	N/A	Billowy canopy; Canopy dominating attention.	Medium texture but smooth in relation to setting.
Pattern/ Distribution	Natural	Natural, dense canopy.	Intentional; Directional.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Has look that matches park entrance. No features are distracting from view.	**Coherence (Unity)[1]**: 1 – All features within view go together and are coherently arranged.
Visual Access: Trail. Parking lot provides trail access. Interpretive sign located at viewpoint that may encourage people to stop.	**VMC:** 1

Notes
Road to park entrance.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date:2/10/11	**Time:**17:00

Critical Public View	
CPV ID: CPV15	**Location:** Alvarado Park, Bonitas Gate Trail; Looking down on park area and bay to the west from trail that begins from adjacent residential area.
Proximity to Proposed Action (miles): Just within the treatment area on eastern/northern corner.	**Angle of Observation:** 180-degrees.
Duration of View: Transient (hikers); Prolonged (if you stop to look).	**View Classification:** Continuum of views.
Landscape Type: Panoramic View with elements of enclosure from vegetation and landforms.	**Landscape Analysis Factors:** Panoramic; Some contrast between eucalyptus groves and shorter grassland/scrub. Axis (trail) – eyes move along trail and naturally to the left to the scrub community.

Visual Sensitivity
Level: High **Indicators:** Recreators and Residents

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills; Directional drainages; Convergence; Micro-drainages are apparent due to short vegetation (grasses) in the east portion of the view.	Shrub, grassland dominated. Dense, clumped shrubs at bottom of valley. Trees in background and peripheral.	Trails; Reservoir (one exists now and another is currently under construction during site visit); Class cityscape/bay in background; Industrial areas near the bay are visible.
Line		Shrubs – individually very round/oval, together more “ameba-type” forms they from lines converging toward the central drainage of the valley. Trees – straight, vertical trunks, diagonal branches.	Trails – Curving, flowing; Reservoir – circular.
Color	N/A	Mosaic of greens; Browns from vegetation and scrub that hasn’t leafed out yet.	Mosaic of urban landscape; Trails – greyish tan; Reservoir – Light greenish/tan.
Texture	N/A	Grass – Soft; Scrub – some brittleness; Trees – Soft, trunks have some coarseness and smoothness.	Trails – Coarse by natural; Cityscape – smooth; Reservoir – smooth.
Pattern / Distribution	Natural	Eucalyptus – intentional (plantation); Grass, shrubs – natural.	Trails – natural; Cityscape – intentional.

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Residential areas, water tower is noticeable but subordinate. (Night lighting would be partially shielded by eucalyptus)	**Coherence (Unity)[1]**: 1 – Water tower is hidden back in the trees; houses on the edge are orderly; trails blend in with the landscape; Cityscape is separated by the eucalyptus grove.
Visual Access: Trails; residents have access; road access to trailheads.	**VMC:** 1

Notes
When moving down into the park (south), when looking west toward treatment area the trees on the top of the ridge in the treatment area add ~ 50-ft to the top of the ridgeline and provide a shield of the cityscape beyond.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 2/11/11	**Time:** 8:45

Critical Public View	
CPV ID: CPV16	**Location:** Miller/Knox Treatment Area - Trail next to Dorman Drive; Facing tunnel heading generally northbound.
Proximity to Proposed Action (miles): Approx. 100 yards south of treatment area.	**Angle of Observation:** Directly in front of you.
Duration of View: Variable - Transient (drivers, bikers, walkers); Prolonged (if you are sitting at the park bench where the view point was taken from),	**View Classification:** Unique
Landscape Type: Enclosed	**Landscape Analysis Factors:** Small, condensed scale; Large group of trees contrasts with all other vegetation in the area. Focal point is toward tunnel – the road directs attention toward the tunnel.

Visual Sensitivity
Level: High **Indicators:** Recreators; people travelling along the road to access recreation points. There is a bench to look at scenic views and an old interpretive sign (no longer used).

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills; slopes immediately adjacent to bay; exposed rock above road in slope (to the east, immediately on other side of road).	Dense; billowy eucalyptus canopies are rounded; Very few vertical trunks in view; Pines in the midground; Grass/shrubs in the foreground.	Road; Tunnel; Path: Telephone poles; Train tracks.
Line	Diagonal; leading toward horizontal plane of water.	Canopies rounded; Diagonal branches; Rounded shrubs; Grass follows natural topo.	Road – curving, directional; Tunnel – rounded arc with horizontal top; Path – winding; Poles – vertical with some horizontal lines visible; Tracks – linear.
Color	N/A	Mosaic of greens; Some brown and grey of tree trunks, but subordinate.	Brown poles, grey road and tunnel; Brown/grey train tracks; Brown path.
Texture	N/A	Soft canopies; Soft grasses; Shrubs in foreground are brittle.	Path – rough; Road and poles – smooth.
Pattern/ Distribution	Natural	Natural; Tree canopy is dense; shrubs are sparse.	Intentional; Directional (road, path).

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Utility lines are expected due to nature of area. Area is at the boundary between park setting and more residential area.	**Coherence (Unity)[1]**: 2 – There are a lot of utility poles – more than may be considered typical. They are noticeable, and not in any specific pattern.
Visual Access: Trail. Parking lot provides trail access. Interpretive sign located at viewpoint that may encourage people to stop.	**VMC:** 2

Notes
Trees form a sort of boundary and end to the park. Tunnel is a focal point.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 9/13/12	**Time:** 12:00

Critical Public View	
CPV ID: CPV17	**Location:** Anthony Chabot Regional Park – Skyline Blvd looking east over treatment area.
Proximity to Proposed Action (miles): Approx. 10 yards west of treatment area.	**Angle of Observation:** Variable when driving/biking/walking (~ 180-degrees).
Duration of View: Variable - Transient (drivers, bikers, walkers);	**View Classification:** Continuum of views
Landscape Type: Foreground enclosed, background panoramic	**Landscape Analysis Factors:** Expansive Scale, Contrast (natural landscape in fore-, mid-, and background).

Visual Sensitivity
Level: Moderate **Indicators:** Recreators; people travelling along the road, bicyclists and vehicles traveling along roadway.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills to east; down slopes to west and east of roadway.	Variable; eucalyptus canopies are rounded; Clumps of vertical trunks in foreground along roadway; Grass/shrubs/eucalptus in the background.	Road; fenceline
Line	Undulating silhouette of ridgeline; distinct horizontal line	Canopies rounded; Diagonal branches; Rounded shrubs; Grass follows natural topo.	Road – curving, directional; Tunnel – rounded arc with horizontal top; Path – winding; Poles – vertical with some horizontal lines visible; Tracks – linear.
Color	N/A	Mosaic of greens and browns.	Grey road; Brown grassland; Green clumps of eucalyptus and shrubs.
Texture	N/A	Medium: Soft; Order; Contrast between trees (natural landscape & grass)	Rough; Road– smooth.
Pattern / Distribution	Natural	Natural	In Rural Landscape & park-like

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Roadway is expected due to nature of area. Area is at the boundary between park setting and more residential area.	**Coherence (Unity)[1]**: 2.
Visual Access: Roadway provides transient access.	**VMC:** 1

Notes
Trees form a sort of tunnel along roadway but do not block view to background.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 9/13/12	**Time:** 12:11
Critical Public View	
CPV ID: CPV18	**Location:** Anthony Chabot Regional Park Equestrian Center – Goldenrod trail leading northeast from day-use parking lot near Keller Ave.
Proximity to Proposed Action (miles): Approx. 100 yards north of treatment area.	**Angle of Observation:** Variable when biking/walking/riding (~ 90-degrees).
Duration of View: Variable - Transient (bikers, walkers, horse riders.	**View Classification:** Unique
Landscape Type: Foreground enclosed, background panoramic	**Landscape Analysis Factors:** Small, condensed scale opening to panorama at gaps in vegetation. Vegetation surrounding equestrian center serves as visual screen.
Visual Sensitivity	
Level: Moderate **Indicators:** Recreators; people traveling along the trail.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills to east; Steep downslope immediately east of CVP.	Dense; shrub banks are rounded;; Grass/shrubs in the background.	Stables and support structures screened by vegetation.
Line	Undulating silhouette of ridgeline; distinct horizontal line.	Canopies rounded; Diagonal branches; Rounded shrubs; Grass follows natural topo.	Rectangular structures with diagonal and horizontal roofs; Winding trail.
Color	N/A	Mosaic of greens; Some brown and grey of shrub trunks, but subordinate.	Brown buildings.
Texture	N/A	Soft canopies; Soft grasses; Shrubs in foreground are brittle.	Trail – rough; structures – smooth.
Pattern/ Distribution	Natural	Natural; Tree and shrub canopy is dense.	Intentional; Directional (trail).

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 2 – Contrast between equestrian area & surrounding landscape. Eyes drawn to natural vegetation in fore-ground/middleground	**Coherence (Unity)[1]**: 2
Visual Access: Trail.	**VMC:** 2
Notes	
Trees and shrubs create a sort of visual tunnel along trail. Breaks in vegetation create multiple visual focal points.	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 9/13/12	**Time:** 12:21

Critical Public View	
CPV ID: CPV19	**Location:** Anthony Chabot Regional Park – Skyline Trail approximately .5 mile from day use trailhead near Keller Ave..
Proximity to Proposed Action (miles): Approx. 50 yards east of treatment area.	**Angle of Observation:** Variable when biking/walking/riding (~ 180-degrees).
Duration of View: Variable - Transient (bikers, walkers, horse riders.	**View Classification:** Unique
Landscape Type: Enclosed	**Landscape Analysis Factors:** Small, condensed scale opening to background of residential development at gaps in vegetation. Vegetation surrounding residential development provides some visual screening.

Visual Sensitivity
Level: Moderate **Indicators:** Recreators; people traveling along the trail.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling; Prominent ridgeline; Apparent drainages.	Mosaic of predominately shrubs with dispersed patches of trees; patches of open grassland.	Low density residential
Line	Variable; diagonal (predominately); undulating ridgetops.	Flowing; Contiguous; Converging	Characteristic of rural buildings; gentle sloping roof; horizontal sides of structures. Trail – curving, directional.
Color	N/A	Mosaic of green; some brown	Mosaic of residential building colors including browns, reds, and beiges.
Texture	N/A	Soft canopies; Soft grasses; Shrubs in foreground are brittle.	Path – rough; structures – smooth.
Pattern/ Distribution	Natural	Natural; Tree and shrub canopy is dense.	Intentional; Directional (trail).

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 1 – Contrast between residential structures & surrounding landscape. Eyes drawn to natural vegetation in fore-ground/middleground	**Coherence (Unity)[1]**: 2
Visual Access: Trail	**VMC:** 2

Notes
Trees and shrubs create a sort of visual tunnel along trail. Breaks in vegetation create multiple visual focal points.

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 9/13/12	**Time:** 13:08

Critical Public View	
CPV ID: CPV20	**Location:** Wildcat Canyon Regional Park – Turnout at end of Leneve Place.
Proximity to Proposed Action (miles): Approx. 10 feet west of treatment area.	**Angle of Observation:** Variable when biking/walking/riding (~ 90-degrees). View of residents adjacent to park is variable(~ 180-degrees).
Duration of View: Variable - Transient (drivers, walkers); Prolonged	**View Classification:** Continuum of views
Landscape Type: Foreground to left enclosed, foreground and background panoramic on right	**Landscape Analysis Factors:** Small, condensed scale on left opening to background of natural grassland panorama on right side to residential structure on far right.

Visual Sensitivity
Level: Low **Indicators:** People traveling along Leneve Place on foot for recreation purposes and in cars to access residential neighborhood.

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Rolling hills to east	Variable; dense shrubs and trees on left side and down slope of public view; Grass/shrubs in the background on right side.	Road; residential structures along Leneve Place.
Line	Diagonal ridges; Conical horizontal ridgelines.	Rounded shrubs; Grass follows natural topo.	Road – curving, directional; Characteristic residential buildings; diagonal roofs; horizontal sides.
Color	N/A	Mosaic of green; predominate browns in background on right	Mosaic of residential building colors including browns, reds, and beiges.
Texture	N/A	Soft canopies; Soft grasses; Shrubs in foreground are brittle.	Road and residential buildings – smooth.
Pattern/ Distribution	Natural	Natural; Shrub/tree canopy on right and down slope is dense.	Intentional; Directional (road, path).

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 3 – Residential structures and view shed in background are co-dominant.	**Coherence (Unity)[1]**: 2
Visual Access: Roadway provides transient access.	**VMC:** 2

Notes

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

General	
Date: 9/13/12	**Time:** 10:45
Critical Public View	
CPV ID: CPV21	**Location:** Tilden Regional Park – Merry-go-round parking lot.
Proximity to Proposed Action (miles): Within treatment area.	**Angle of Observation:** Direct
Duration of View: Variable - Transient (recreators, park users),	**View Classification:** Continuum of views
Landscape Type: Enclosed	**Landscape Analysis Factors:** Contrast between park buildings & natural area. Variations of scale depending on if you are looking at/around merry-go-round or looking at view behind.
Visual Sensitivity	
Level: High **Indicators:** Recreators/Park Users.	

Existing Visual Character: Landscape Character			
	Landform/Water	**Vegetation**	**Structures**
Form	Flat area transitioning to steep hillside slope.	Predominantly forest with grass and shrubs in background; manicured grass lawn in foreground.	Road; parking lot, merry-go-round enclosure, restroom building.
Line	Predominantly diagonal; Some horizontal lines at ridgetops.	Tree line mimics landform vertical trunks eclipsed by tree canopies.	Rectangular building with domed roof, horizontal parking lot lines transitioning to diagonal moving down slope.
Color	N/A	Mosaic of greens; Some brown and grey of tree trunks, but subordinate.	Buildings with browns, greys and blues, grey parking lot.
Texture	N/A	Soft canopies; Soft grasses; Shrubs in foreground are brittle. Soft manicured lawn.	Road parking lot and buildings.
Pattern/ Distribution	Natural	Natural; Tree canopy is dense; shrubs are sparse.	Intentional; Directional (road, parking lot).

Visual Modification Class Parameters	
Congruence (Intactness)[1]: 3 – Recreation site structures and view shed in background are co-dominant..	**Coherence (Unity)[1]**: 2.
Visual Access: Parking lot and access road provides recreation site access.	**VMC:** 1
Notes	

[1] Adverse Changes: (1) Not Noticeable; (2) Noticeable but Subordinate; (3) Co-dominant; or (4) Dominant.

HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 1 of 10

Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

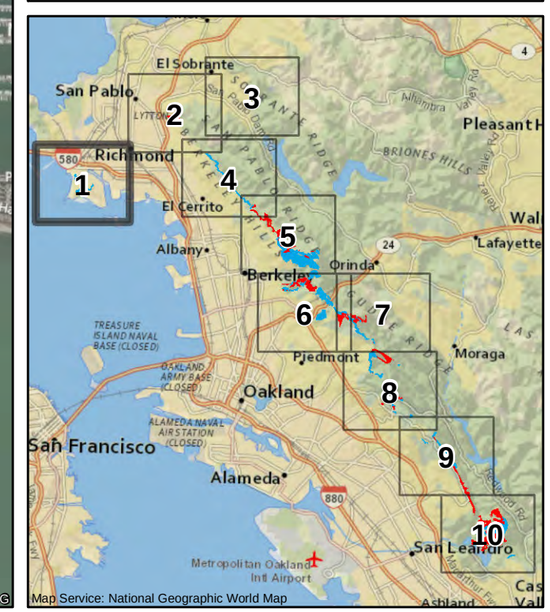
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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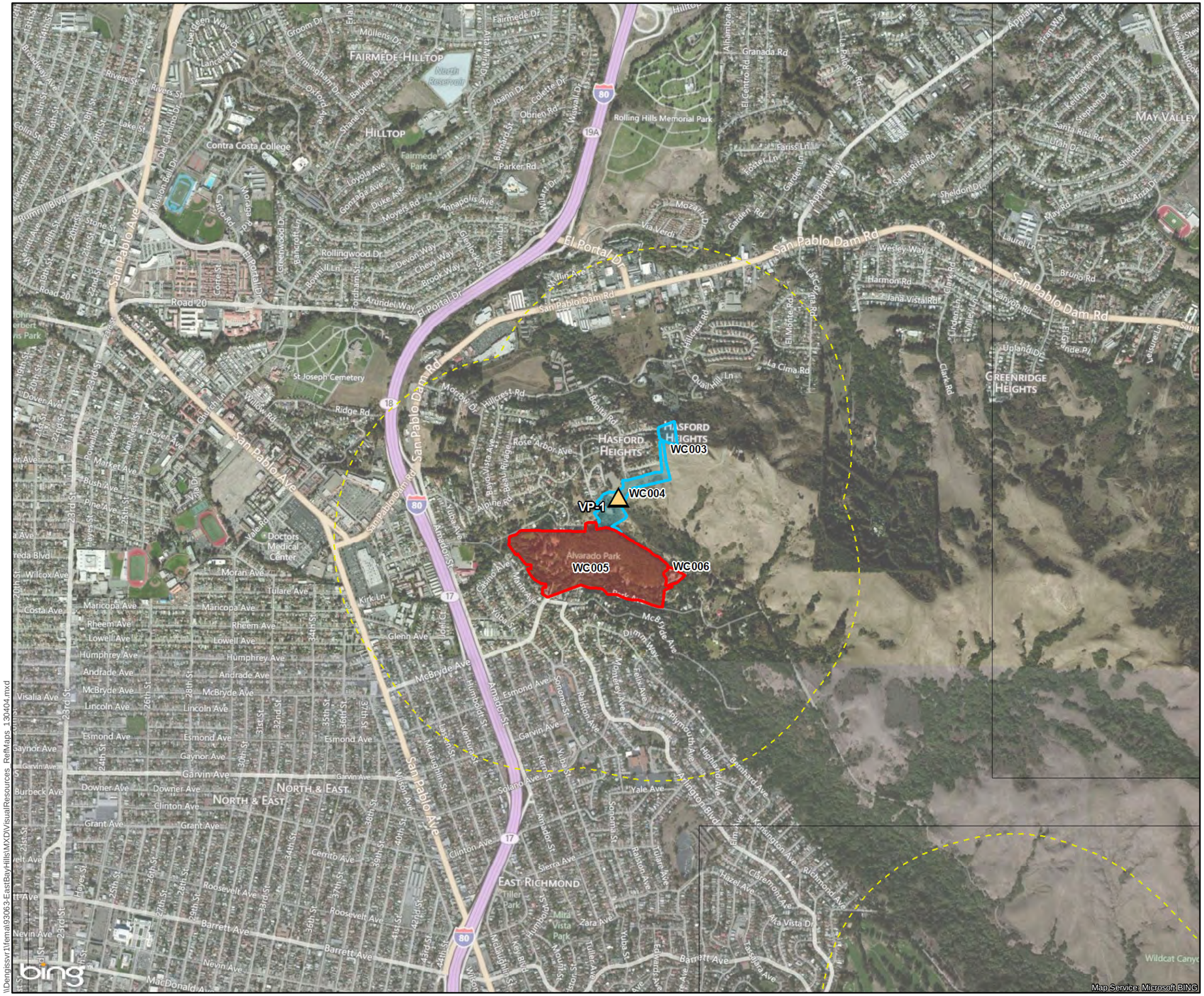
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 2 of 10



Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

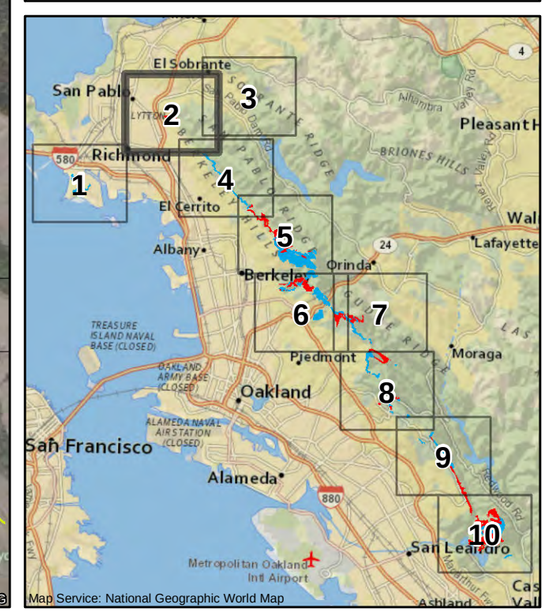
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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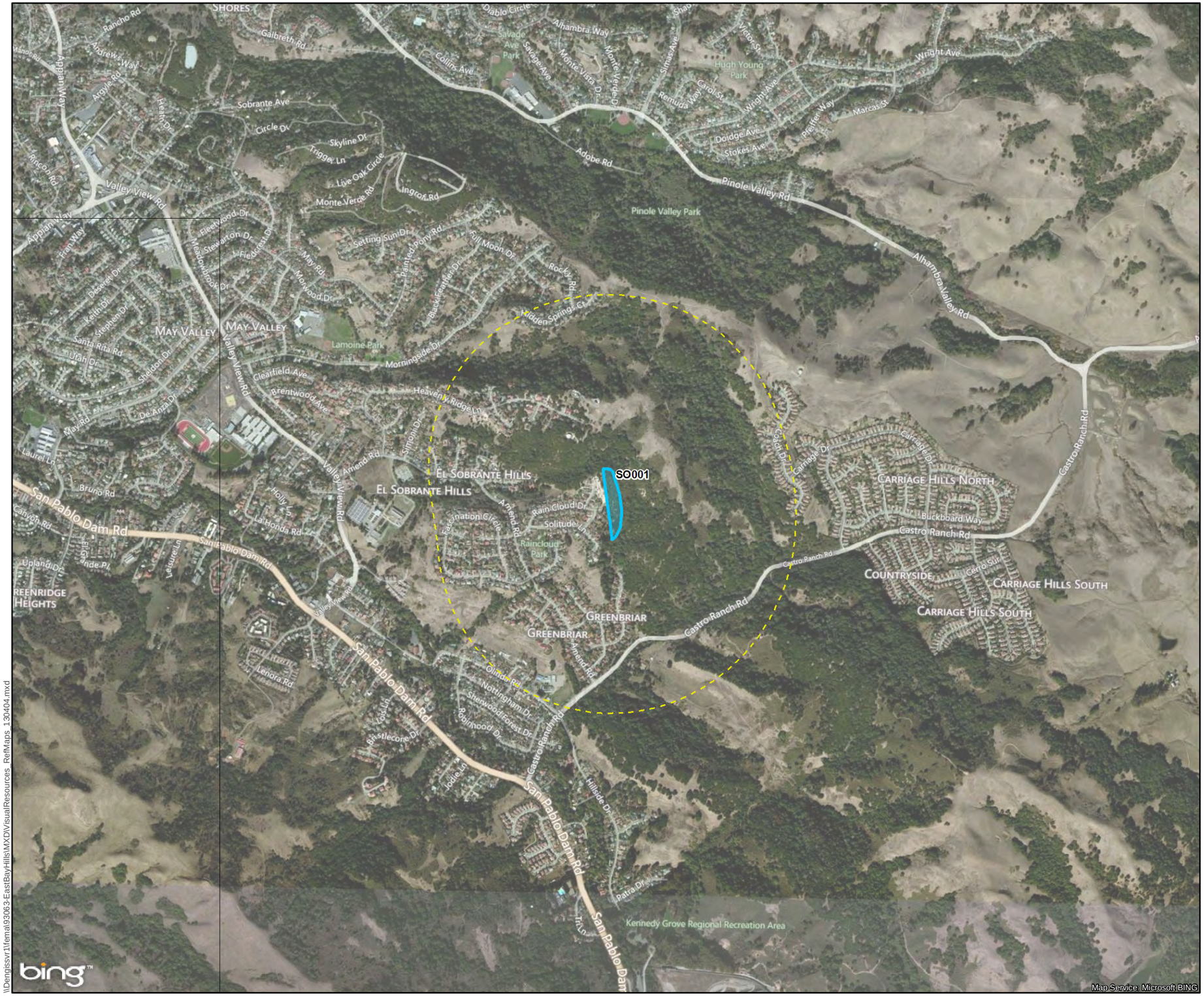
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 3 of 10



Viewing Points

Proposed project areas

Connected project areas

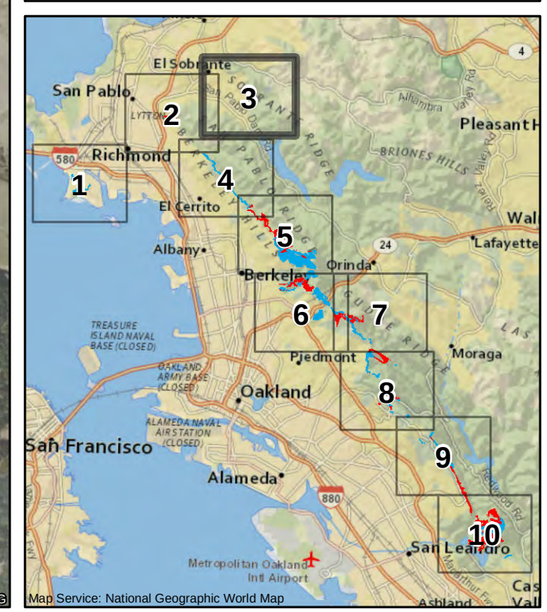
Adjoining panel edge

0.5-mile buffer

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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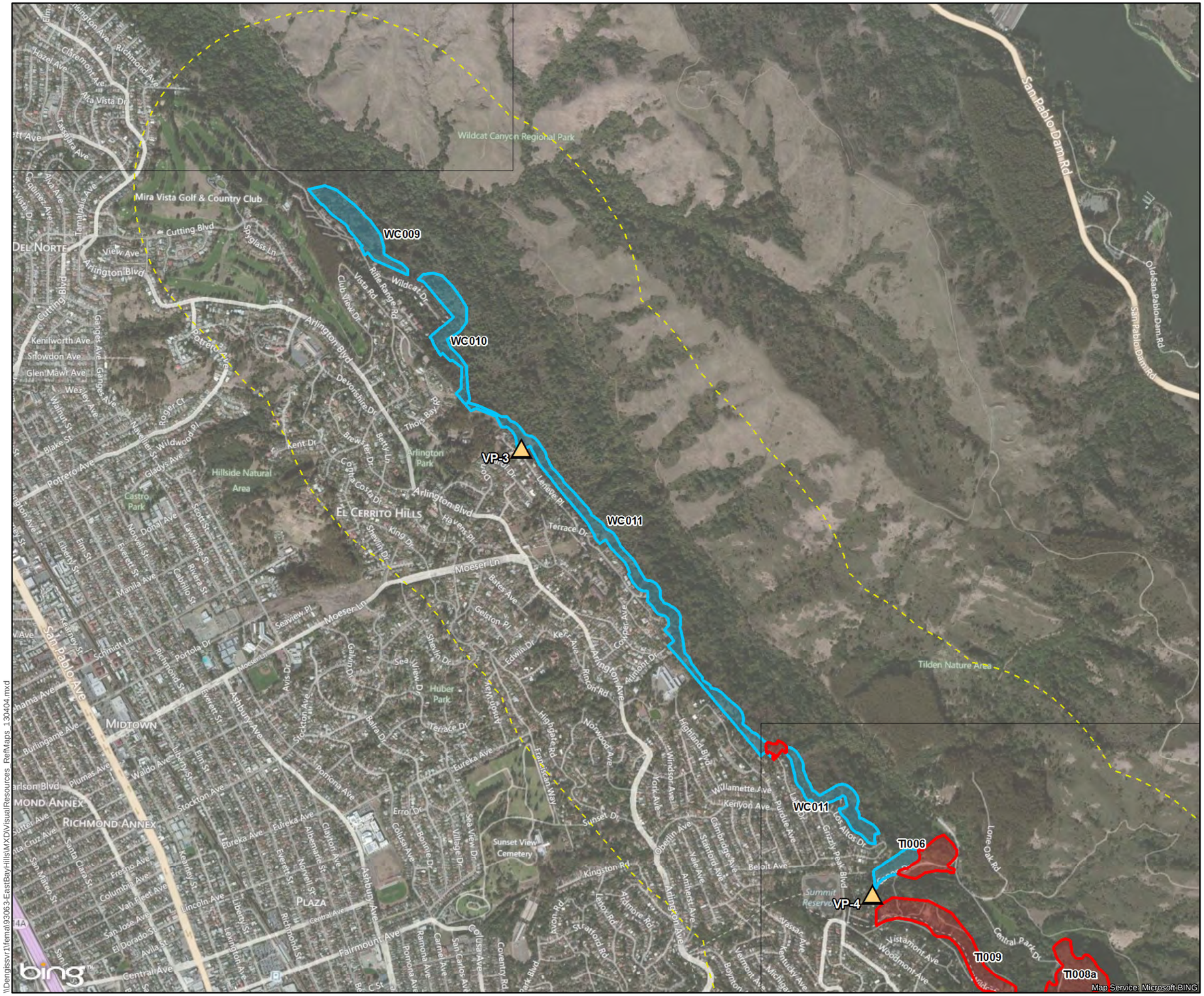
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 4 of 10



Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

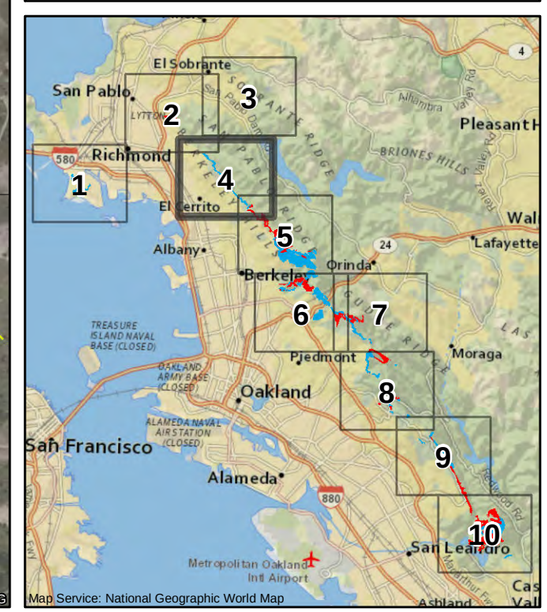
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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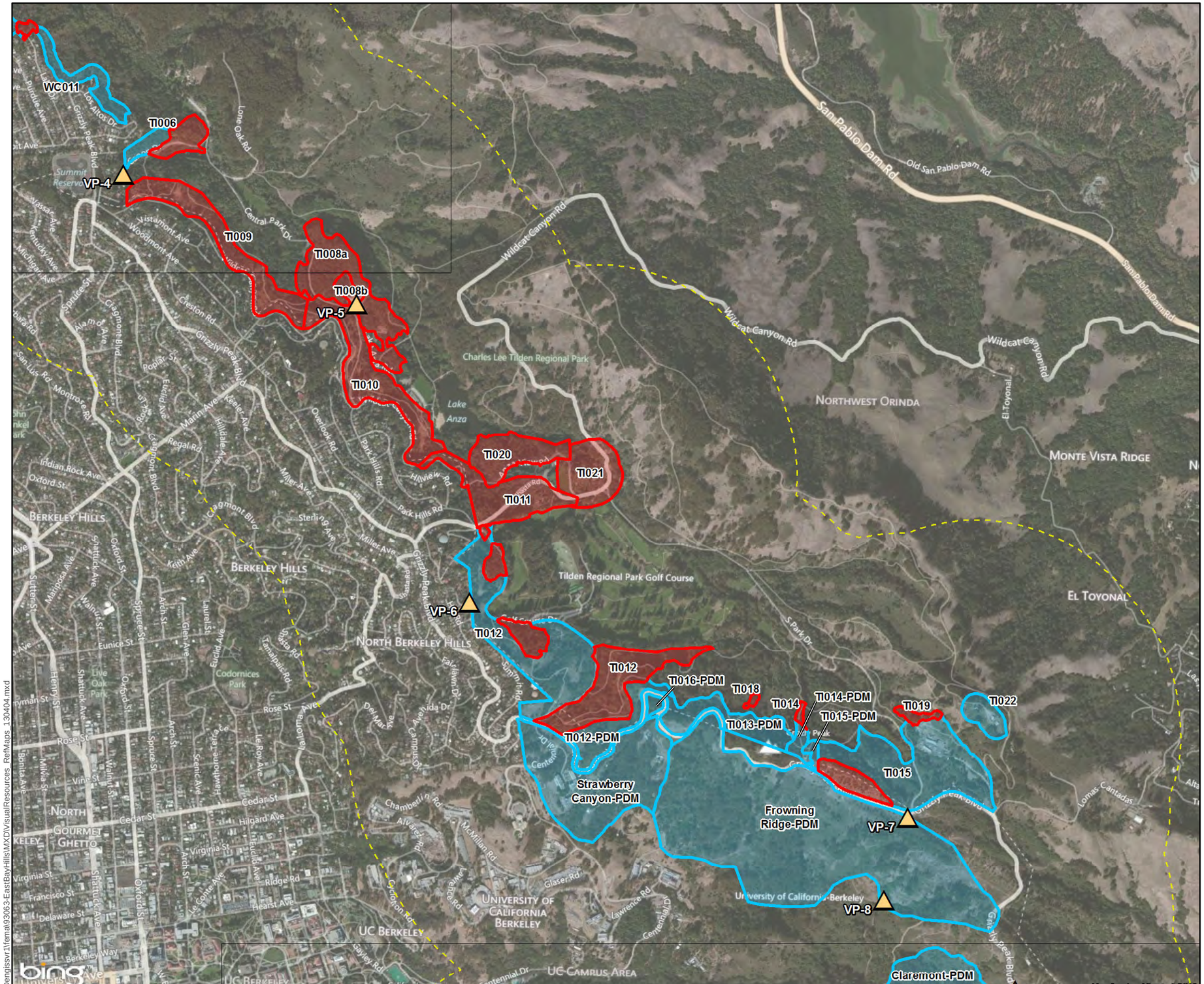
HAZARDOUS FIRE RISK REDUCTION EIS EAST BAY HILLS, CA VIEWING POINTS

FIGURE 5 of 10



Viewing Points

Proposed project areas

Connected project areas

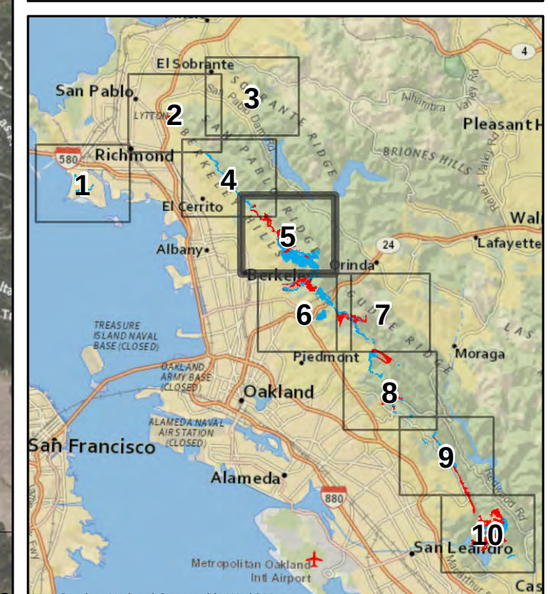
Adjoining panel edge

0.5-mile buffer

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34
PDM-PJ-09-CA-2005-003
PDM-PJ-09-CA-2005-011
PDM-PJ-09-CA-2006-004



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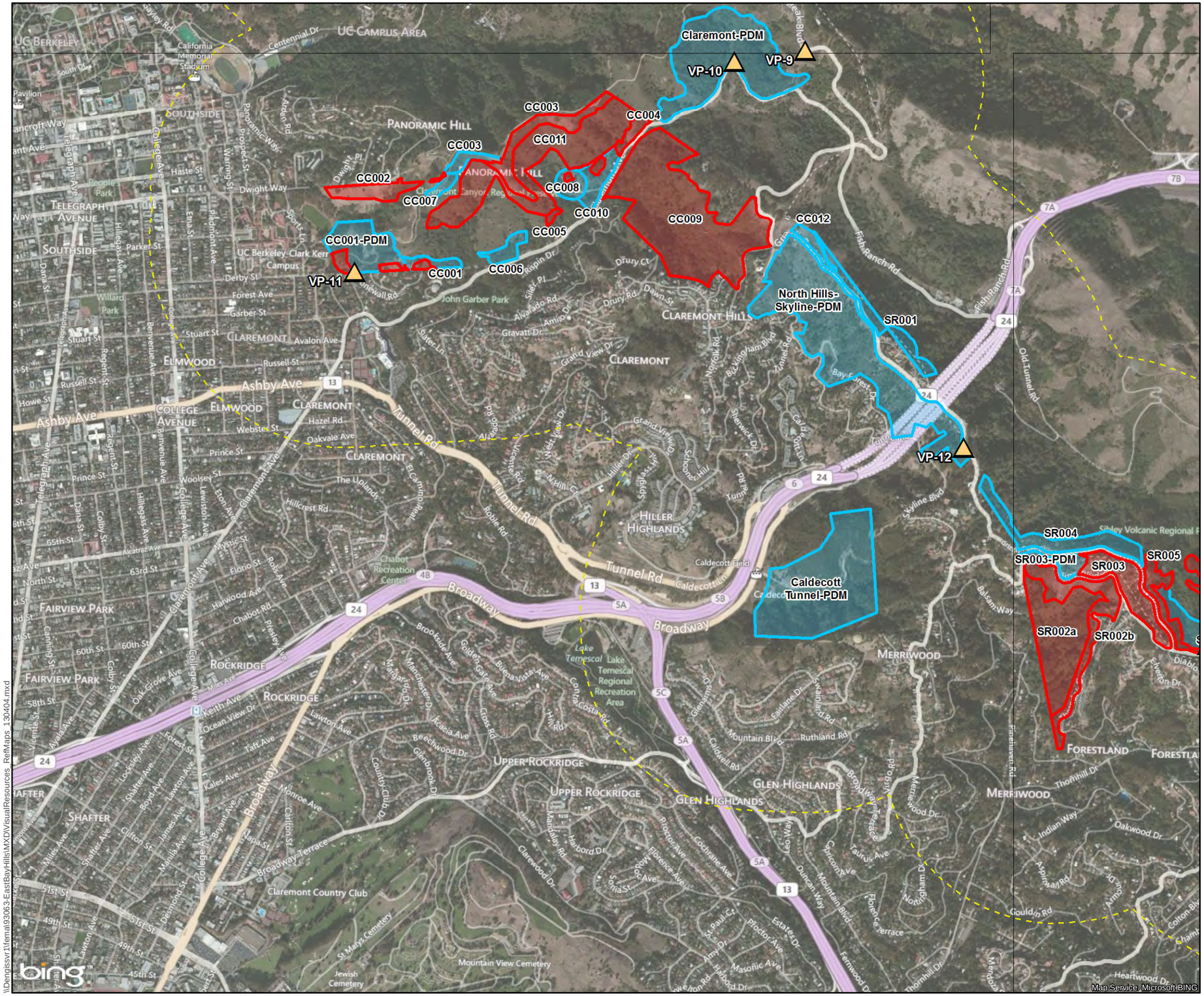
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 6 of 10

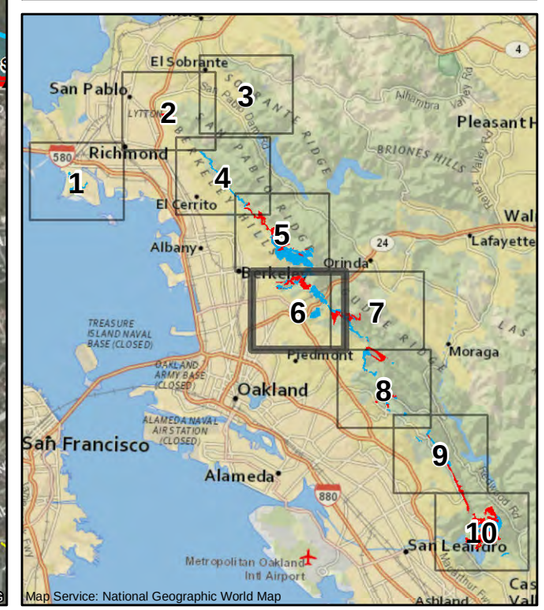


Viewing Points
Proposed project areas
Connected project areas
Adjoining panel edge
0.5-mile buffer

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34
PDM-PJ-09-CA-2005-003
PDM-PJ-09-CA-2006-004



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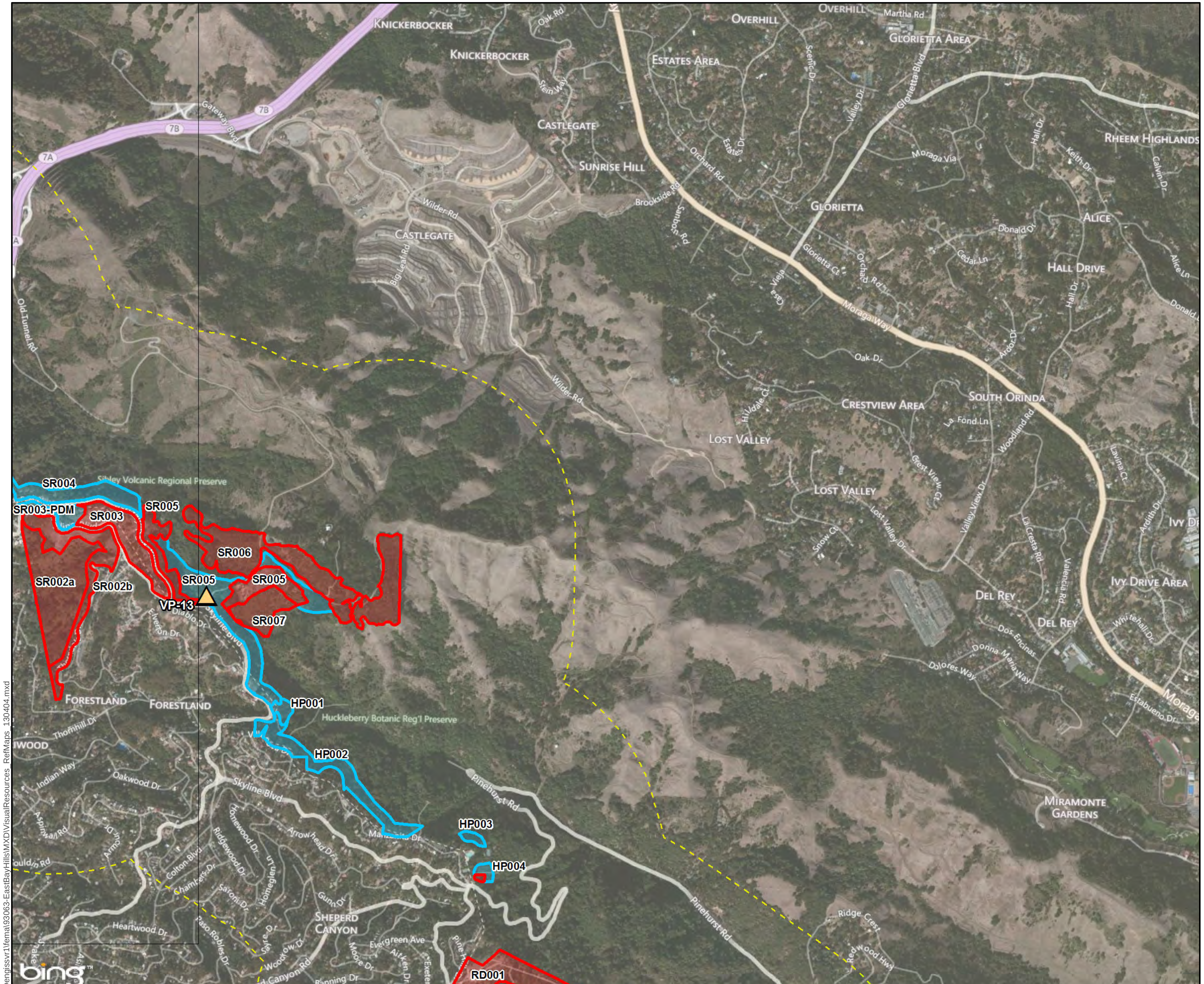

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HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 7 of 10

- Viewing Points
- Proposed project areas
- Connected project areas
- Adjoining panel edge
- 0.5-mile buffer

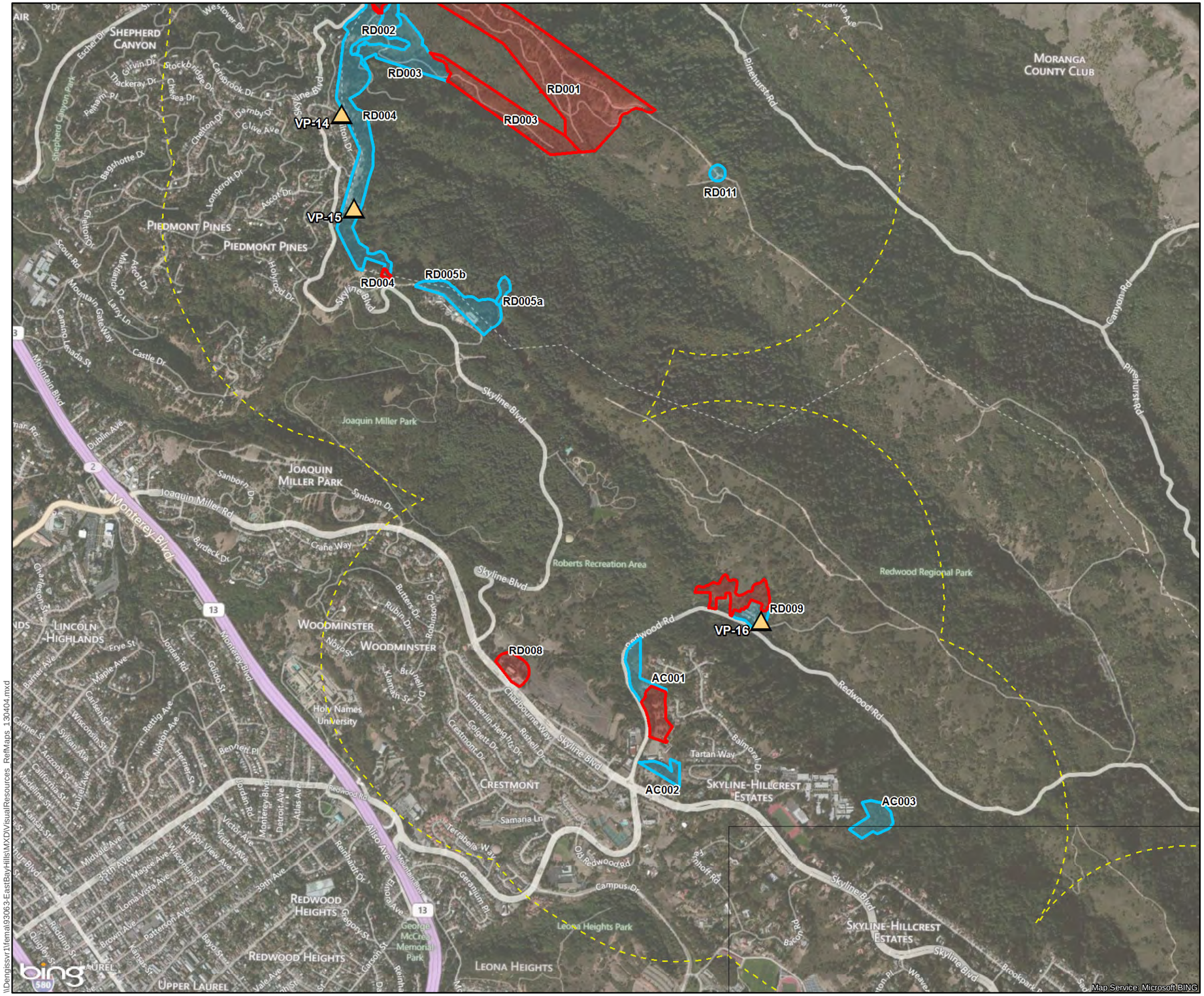
0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34
PDM-PJ-09-CA-2006-004

HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 8 of 10



Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

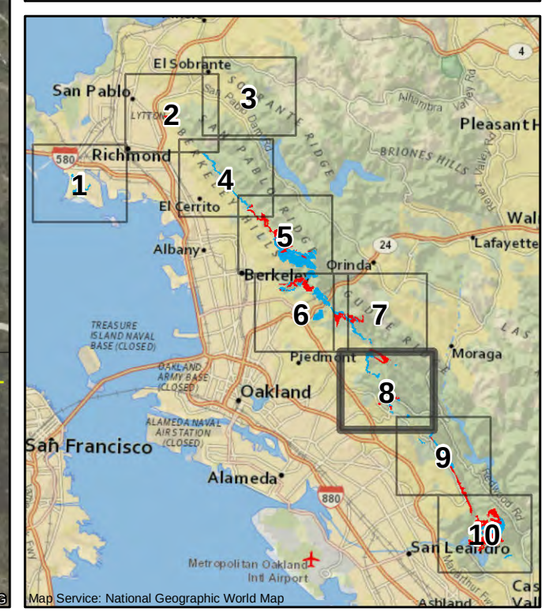
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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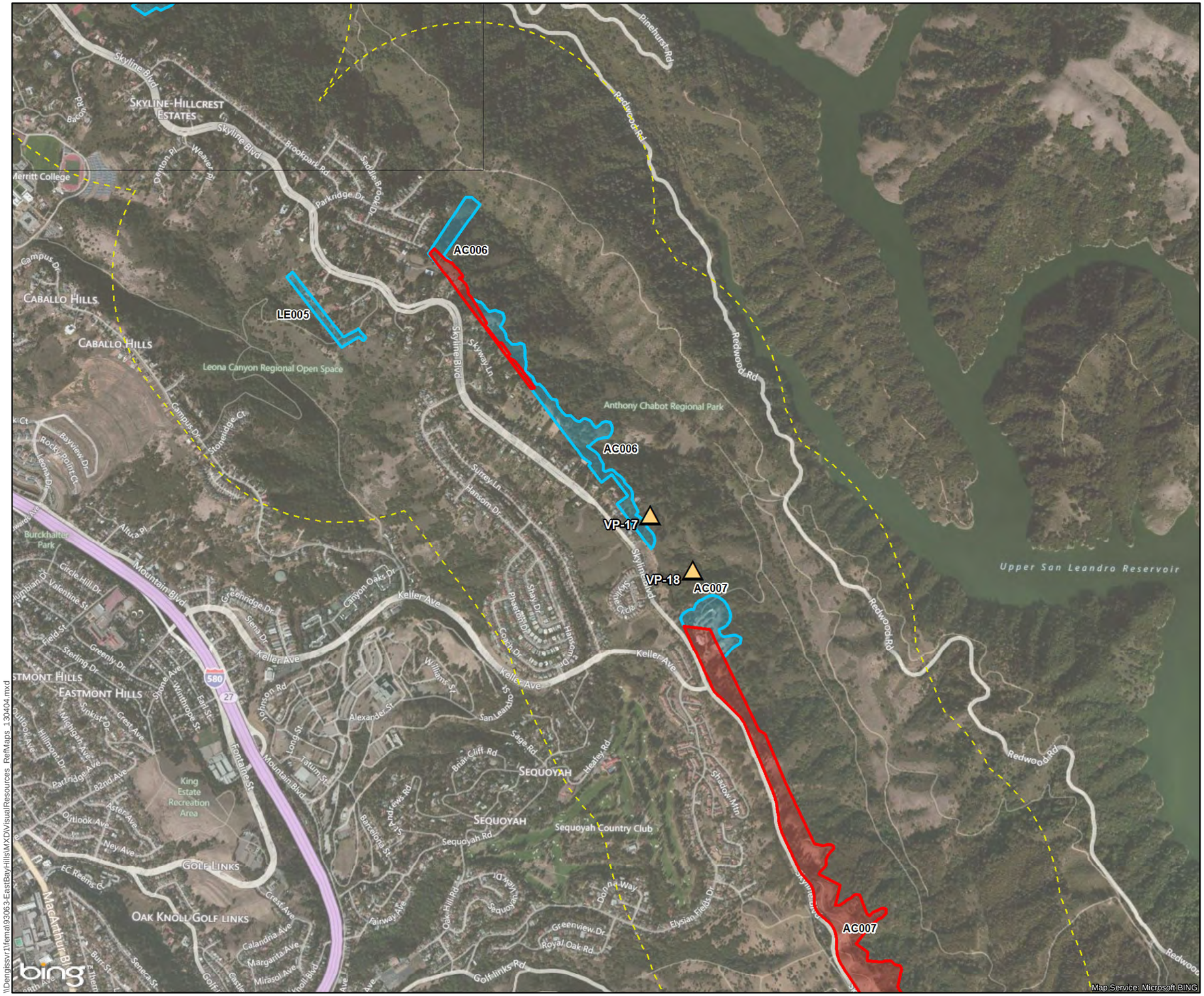
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 9 of 10



Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

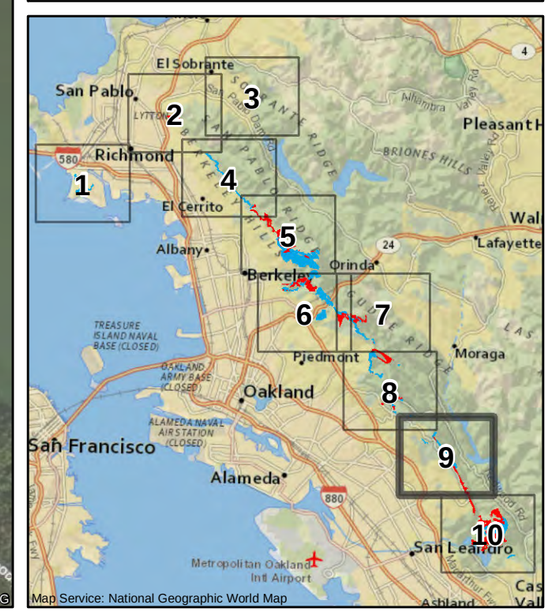
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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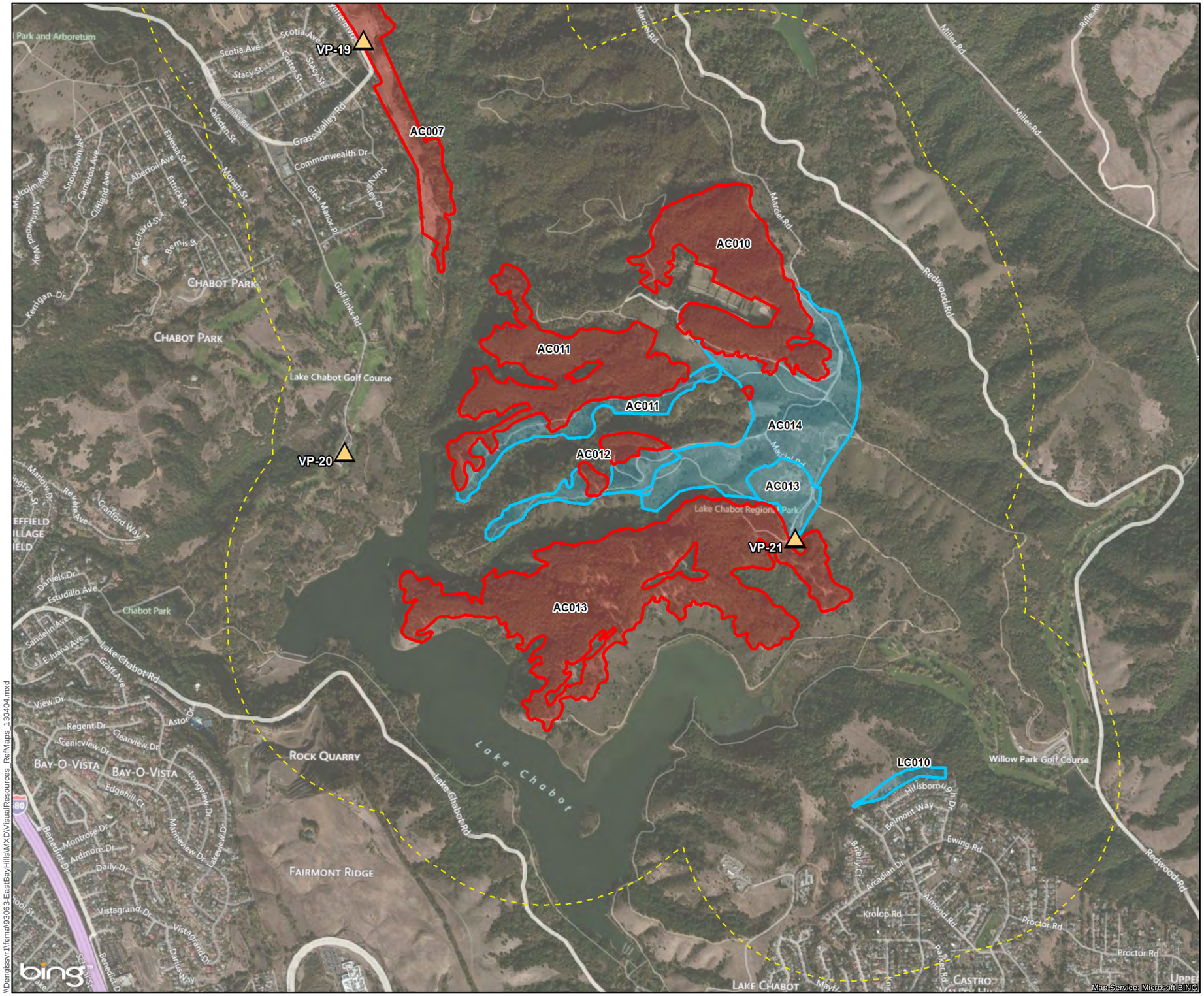
HAZARDOUS FIRE RISK REDUCTION EIS
EAST BAY HILLS, CA
VIEWING POINTS

FIGURE 10 of 10



Viewing Points

Proposed project areas

Connected project areas

Adjoining panel edge

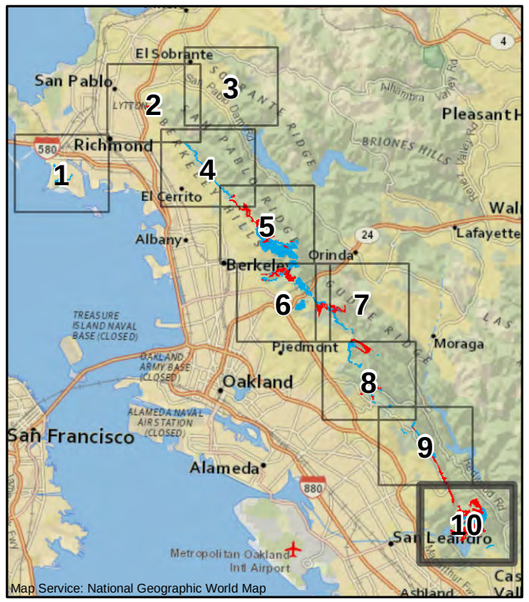
0.5-mile buffer

N W E S

0 750 1,500 3,000
Feet

0 0.125 0.25 0.5
Miles

HMGP 1731-16-34



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