

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT



GOVERNING BOARD REGULAR MEETING INFORMATION

Meeting Date & Time

Thursday, November 10, 2016 at 10:00 a.m.

Meeting Location

Town of Mammoth Lakes Council Chambers
437 Old Mammoth Road – Suite Z
Mammoth Lakes, California
(public Wi-Fi password information posted in Suite Z)

District Board

Larry Johnston, Mono County, Chair
John Wentworth, Town of Mammoth Lakes, Vice Chair
Ron Hames, Alpine County
Mary Rawson, Alpine County
Jeff Griffiths, Inyo County
Fred Stump, Mono County
Matt Kingsley, Inyo County

Phillip L. Kiddoo, Air Pollution Control Officer
157 Short Street, Bishop, California 93514
(760) 872-8211 E-mail: pkiddoo@gbuapcd.org



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

FOR IMMEDIATE RELEASE

October 26, 2016

Great Basin Unified Air Pollution Control District is pleased to announce a Forest & Air Workshop on November 10th, 2016 in Mammoth Lakes. The workshop will focus on and the relationship between forest health, wildland fires and the impacts to air quality. The symposium will highlight speakers from CAL FIRE, Sierra Nevada Conservancy, the National Park Service, the U.S. Forest Service, California Air Pollution Control Officers Association and Great Basin Unified Air Pollution Control District (GBUAPCD). Presentations include:

- Tree Mortality: Current Overview on Drought, Wildfires & Bark Beetle Impacts, Update on Governor's Task Force and Activities – Glenn Barley, CAL FIRE
- State of the Sierra Nevada's Forests - Jim Branham, Sierra Nevada Conservancy
- Rainbow Fire: Past and Contemporary Fire Regimes in Devils Postpile National Monument - Anthony C. Caprio and Monica Buhler, Sequoia, Kings and Devils Postpile National Parks
- Smoke and Air Quality Summary of the Inyo, Sequoia and Sierra National Forest Plan Revision -Deb Schweizer, Inyo National Forest
- Smoke Transport in the Sierra Nevada- Don Schweizer, US Forest Service Region 5
- Air Curtain Incinerator Updates - Alan Abbs, CA Air Pollution Control Officers Association
- Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires - Jon Becknell, GBUAPCD
- Emergency Air Quality Monitoring Program - Ann Piersall, GBUAPCD
- Rule 701 – Air Pollution Episode Plan, Public Health Alert Notifications and Website Updates - Kimberly Mitchell, GBUAPCD

The workshop is free and open to public. The workshop will start at 10:00 am and will be held in the Town of Mammoth Lakes Council Chambers at 437 Old Mammoth Road, Suite Z, in Mammoth Lakes, California as part of the Great Basin Unified Air Pollution Control District Regular Governing Board meeting.

For more information please contact the Great Basin Unified Air Pollution Control District at (760) 872-8211.



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Tel: 760-872-8211 www.gbuapcd.org

GOVERNING BOARD SPECIAL MEETING AGENDA

THURSDAY, NOVEMBER 10, 2016 AT 10:00 AM

Town of Mammoth Lakes Council Chambers

437 Old Mammoth Road (Suite Z)

Mammoth Lakes, California 93546

Assistance for those with disabilities: If you have a disability and need accommodation to participate in the meeting, please call Tori DeHaven, Board Clerk, at (760) 872-8211 for assistance so the necessary arrangements can be made.

1. Call to order and pledge of allegiance
2. Public comment on matters not on the agenda (No action)
3. **Forest & Air Workshop** (No Action)1
 - a. Tree Mortality: Current Overview on Drought/Wildfires/Bark Beetle Impacts, Update on Governor's Task Force and Activities (Glenn Barley, San Bernardino/Inyo/Mono Unit Chief, CAL FIRE).....2
 - b. State of the Sierra Nevada's Forests (Jim Branham, Sierra Nevada Conservancy)20
 - c. Rainbow Fire: Past and Contemporary Fire Regimes in Devils Postpile National Monument, CA (Anthony C. Caprio, Fire Ecologist, and Monica Buhler, Natural Resource Program Manager, Sequoia, Kings and Devils Postpile National Parks)40
 - d. Smoke and Air Quality Summary of the Inyo, Sequoia and Sierra National Forest Plan Revision (Deb Schweizer, Inyo National Forest)76
 - e. Smoke Transport in the Sierra Nevada (Don Schweizer, US Forest Service Region 5) 84
 - f. Air Curtain Incinerator Updates (Alan Abbs, CA Air Pollution Control Officers Association)85
 - g. Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires (Jon Becknell, GBUAPCD)97
 - h. Emergency Air Quality Monitoring Program (Ann Piersall, GBUAPCD)118
 - i. Rule 701 – Air Pollution Episode Plan, Public Health Alert Notifications and Website Updates (Kimberly Mitchell, GBUAPCD)132

BREAK (approximately one hour)

4. Consent Items (Action)
 - a. September 14, 2016 Governing Board meeting minutes143
 - b. Award of contract for purchase and servicing of new multi-function copier for Bishop office156
 - c. Designation and disposal of surplus equipment157
 - d. Re-appointment of current Hearing Board members (Sweeney, Pumphrey).....160
 - e. Project update and approval of amendment to purchase order 1433 in an amount of \$28,998.00 with Greenheart Farms Inc. for the purchase of an additional 15,000 plants for the Keeler Dunes Project161
 - f. Approve purchase order 9049 with Draganfly Innovations, Inc. for the total amount not to exceed \$18,561.61173
5. Approval to transfer funds from Notice of Violation #461 in the amount of \$1,199,707 to the Keeler Dunes Dust Control Project budget (Action)175
6. Informational Items (No action)
 - a. Travel report212
 - b. Permit enforcement activity report213
7. Board member reports (No Action)
8. Air Pollution Control Officer report (No Action).....214
9. Confirm date and location of next regular meeting (January 12, 2017, in Inyo County)215
10. **CLOSED SESSION** - The Board will recess into closed session for a conference call with legal counsel regarding existing litigation in the following matters:
 - a. Russell Covington; Robert Moore; Randy Sipes; Randal Sipes, Jr.; Laborers' International Union of North America Local Union No. 783 vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140075; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.
 - b. Mammoth Community Water District vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140076; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.
11. Adjournment

(All Meetings Are Electronically Recorded – All public records relating to an agenda item on this agenda are available for public inspection at the time the record is distributed to all, or a majority of all, members of the Board. Such records shall be available at the District office located at 157 Short Street, Bishop, California.)



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BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Phillip L. Kiddoo, Air Pollution Control Officer

Subject: Forest & Air Workshop

Summary:

The Forest & Air Workshop is a symposium of local and regional experts focusing on and the relationship between forest health, wildland fires and the impacts to air quality. Hosted by Great Basin Unified Air Pollution Control District, the workshop highlights speakers from CAL FIRE, Sierra Nevada Conservancy, the National Park Service, the U.S. Forest Service, California Air Pollution Control Officers Association and Great Basin Unified Air Pollution Control District. The workshop is free and open to the public.

District staff requested board reports from the agendized presenters prior to the November 10th meeting. Information received has been included in the Board Packet.

Board Action:

None.



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BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Glenn Barley, San Bernardino/Inyo/Mono Unit Chief, CAL FIRE

Subject: Tree Mortality

Summary:

Discussion of the current overview on drought, wildfires, bark beetle impacts and an update on the Governor's task force and activities.

Board Action:

None.

Attachment: Slideshow presentation, "Tree Mortality Task Force: Current Situation"



Tree Mortality Task Force

Current Situation

November 10, 2016

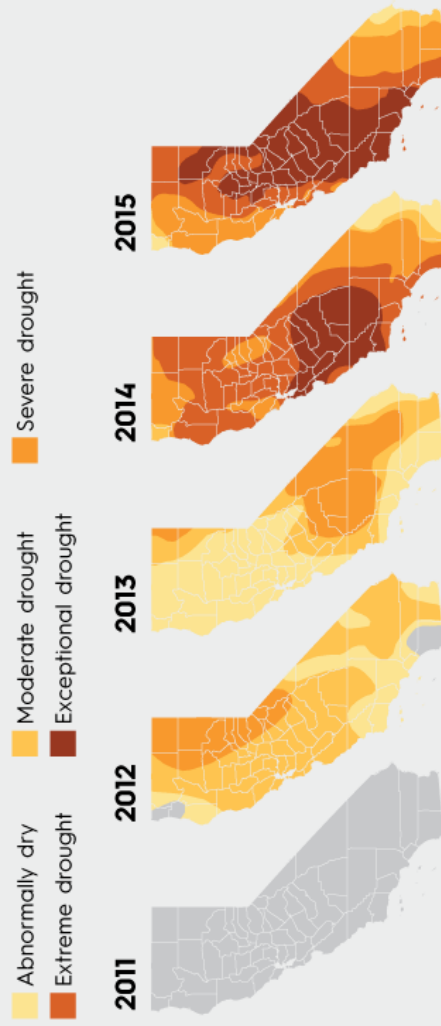
The BEETLES- Where did they come From

- Native insect
- 5 years of drought
- Increase in temperature
- Over stocked forests
- Epidemic populations



A Record-Breaking Drought

41% of the state is facing "exceptional drought" (the most severe kind).



SOURCE: U.S. Drought Monitor

VISUAL NEWS

The Agent(s)



Current Situation

- Estimated 66 Million DEAD trees since 2010
- 5.5 million Hazardous trees to be removed
 - 2/3 on Forest Service Land
 - 1/3 on Private lands



TREE MORTALITY NORTHERN FRESNO COUNTY



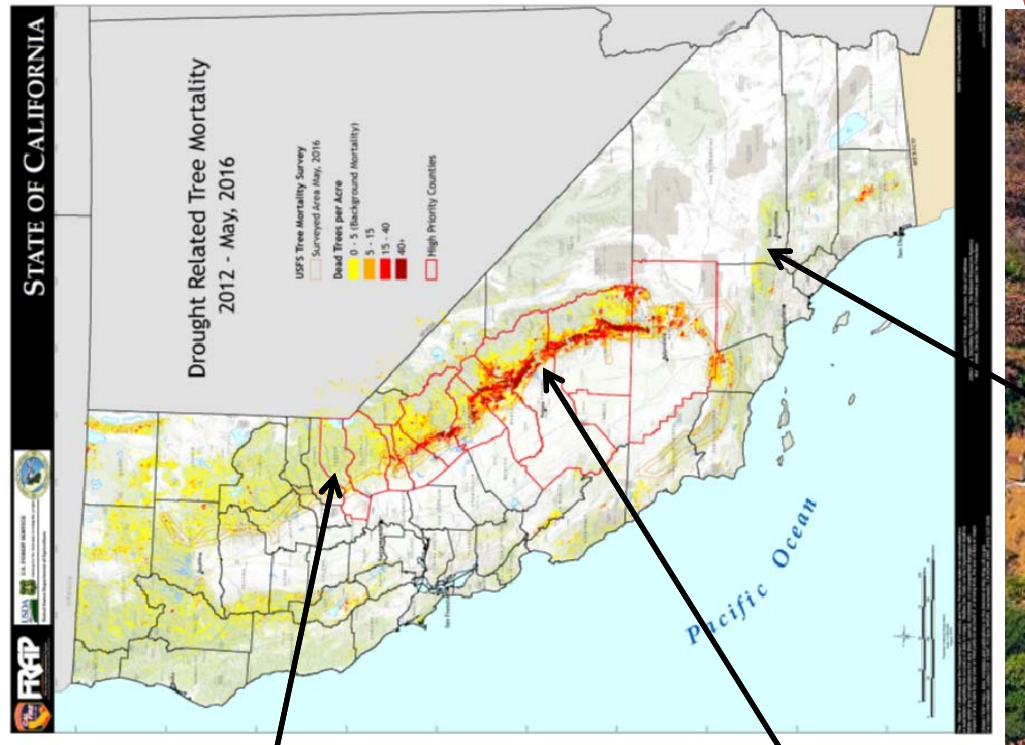
MAY 2015



FEBRUARY 2016

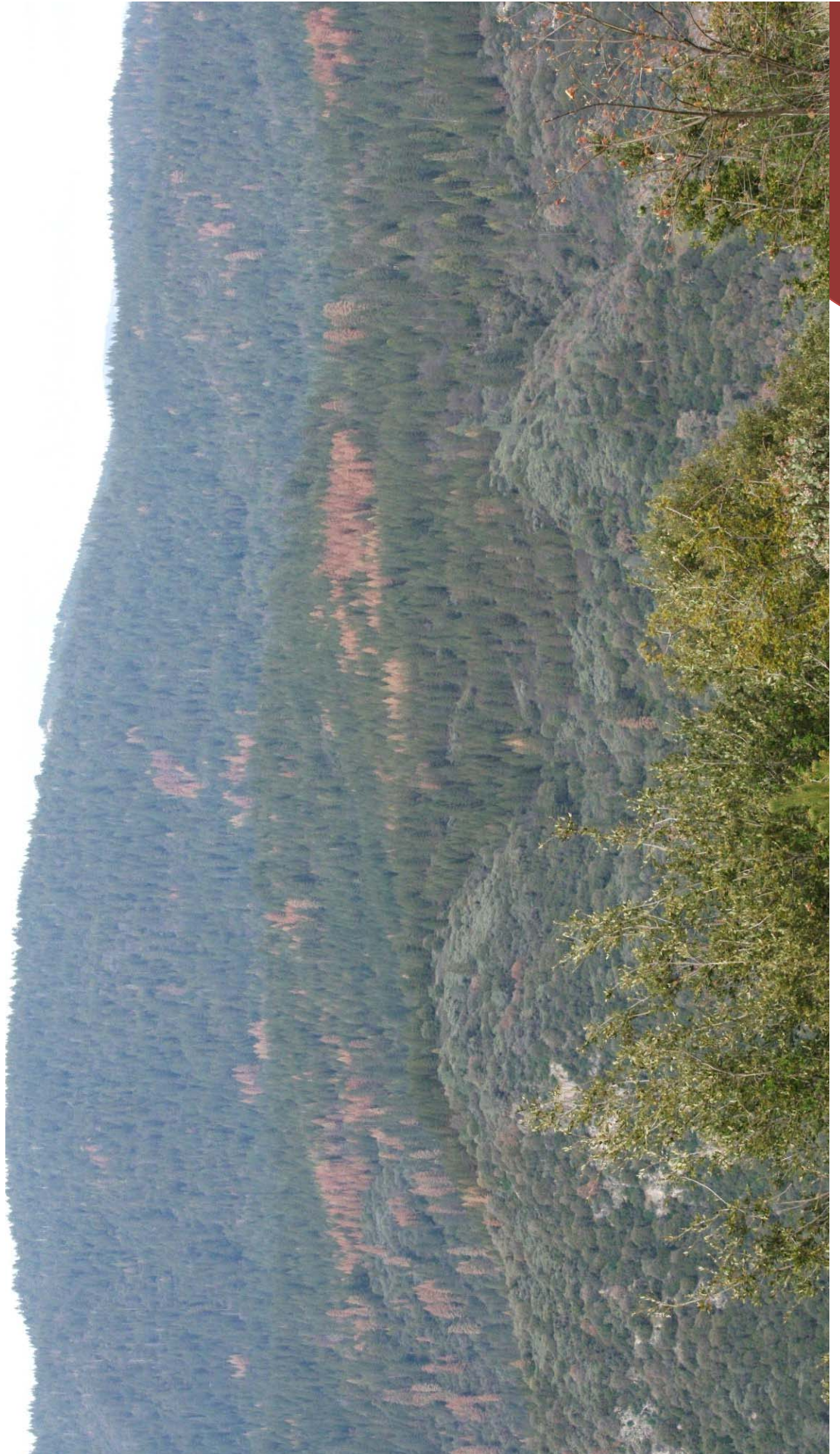


Epidemic proportions

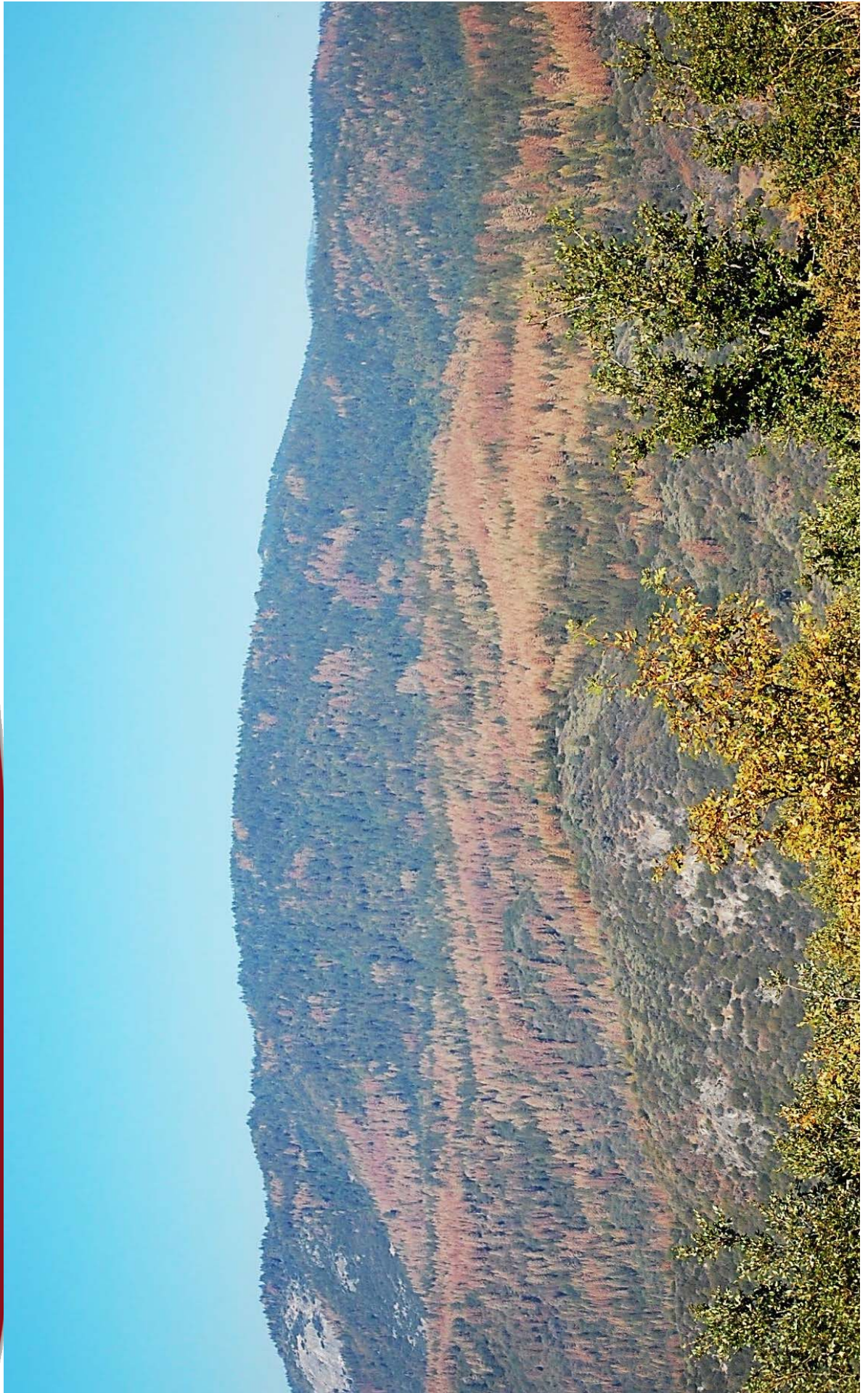


Lake Arrowhead

Mariposa County March 21, 2015



Mariposa County October 11, 2015



TREE MORTALITY TASK FORCE

FORMATION

19 DIRECTIVES

7 WORKING GROUPS

80 ENTITIES

10 COUNTIES



Hazard from falling

161110

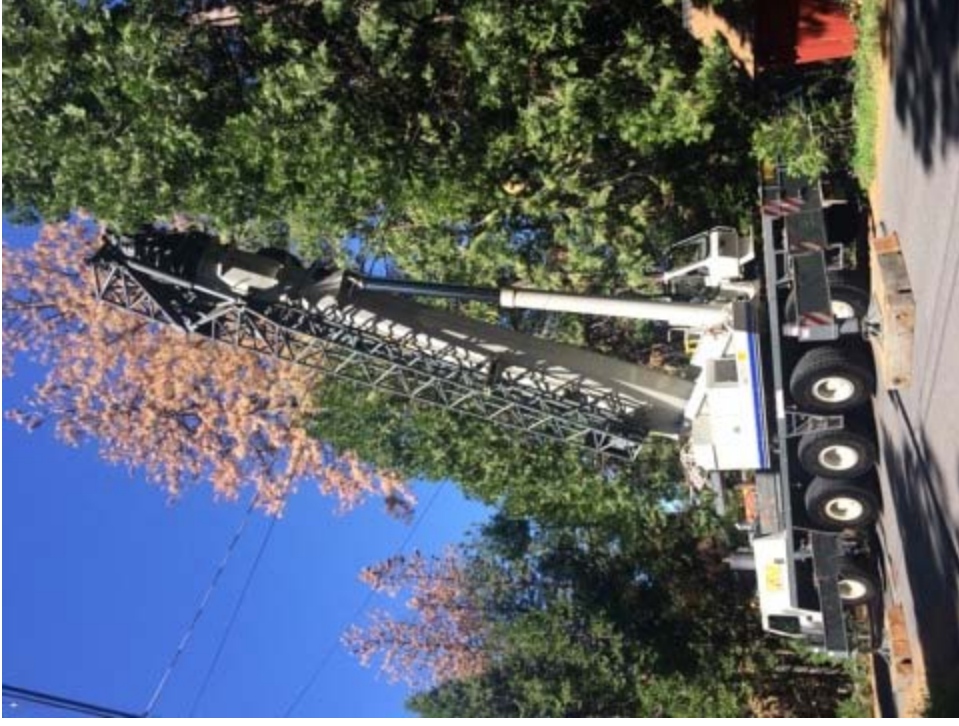
- Dead trees are a clear threat to everything in the fall path.
- Change in forest conditions
- Fire Hazard
- Tier I and Tier II High Hazard Zones

Tuolumne County- October 2016



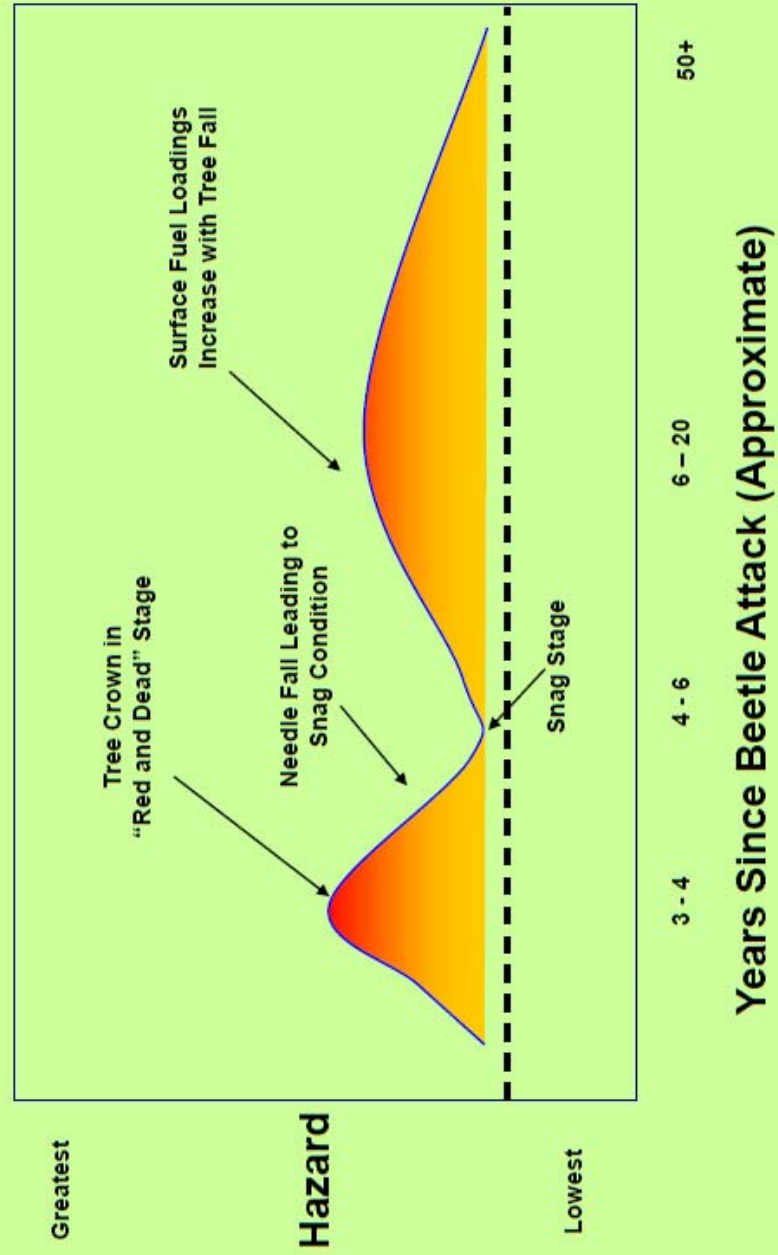
Costs of Tree Mortality Emergency

- \$2.8 billion estimated cost to remove
- \$562 million USFS (approximately \$150/tree)
- \$2.2 billion non-USFS
- (average \$1,200/tree)



Fire Hazard

Fuel Profile Hazard Associated with MPB Mortality



Options for dead trees

- Lumber from dead trees viable for only 3-4 months
- Feedstock
- Export
- Firewood
- Shavings
- Chips



YOU'RE INVITED!



North Fork Community Power Bioenergy Facility
Groundbreaking Ceremony
Thursday November 3, 2016
11:00 AM – 1:00 PM
Old Mill Site, 34000 Koso Nobe Rd North Fork, CA 93643

The first half of the event will be devoted to the groundbreaking, with the second half devoted to brief site tours and a mixer with refreshments

Participants are recommended to wear closed-toed shoes and bring layers in case of inclement weather. Hard hats are suggested. Please RSVP by emailing Project Manager Justine Reynolds at juss.reynolds@gmail.com with your name and number of participants.










Log Sort Yards

- Madera County-
Oakhurst.
- One of the first Log
Sort yards
 - 24 months since
problem noticed
- One of 6 PG&E Log
Sort Yards



CAL FIRE Tree Mortality Equipment



Lake Arrowhead in 2003

2003

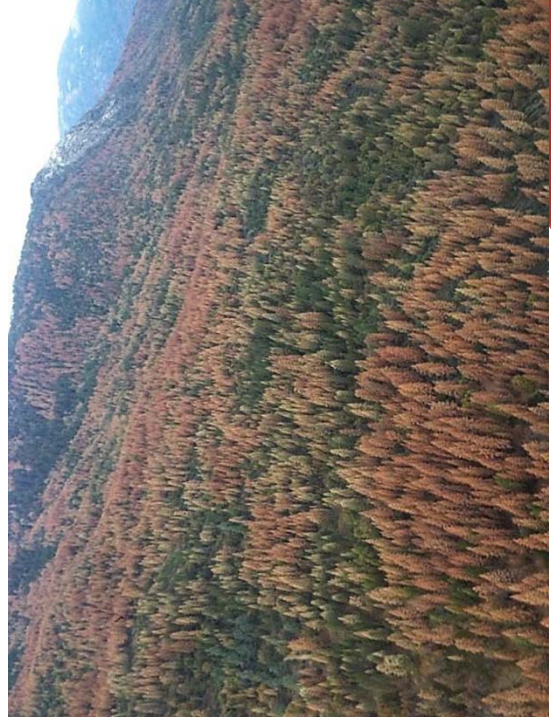


Lake Arrowhead- 2016



Closing

We have never seen an event which will so profoundly impact the forests of California and its associated resources including water, wildlife, forest products, recreation, fire regimes, and their associated economics. These impacts will be felt for decades.





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BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Jim Branham, Executive Officer, Sierra Nevada Conservancy

Subject: State of the Sierra Nevada's Forests

Summary:

Discussion of the current conditions of Sierra Nevada watersheds and forests, the benefits they provide, the need for increased restoration and the consequences of failing to act. This will include a discussion of the Sierra Nevada Watershed Improvement Program, a collaborative effort led by the Conservancy and the US Forest Service, Region 5 to increase the pace and scale of ecologically sound restoration.

Board Action:

None.

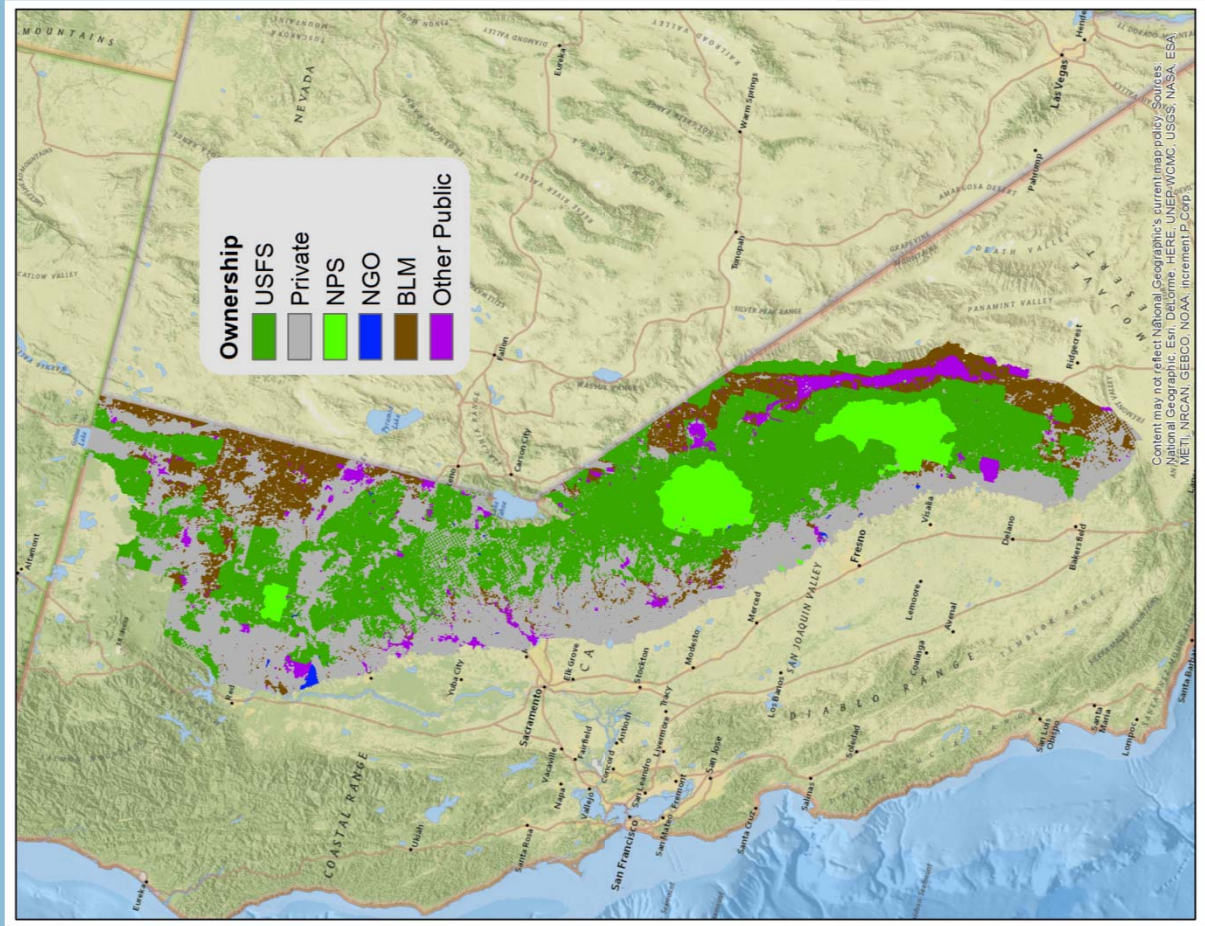
Attachment: Slideshow presentation, "Forest & Air Workshop Mammoth Lakes, CA"

Forest & Air Workshop Mammoth Lakes, CA

November 10, 2016

Jim Branham
Executive Officer
Sierra Nevada Conservancy

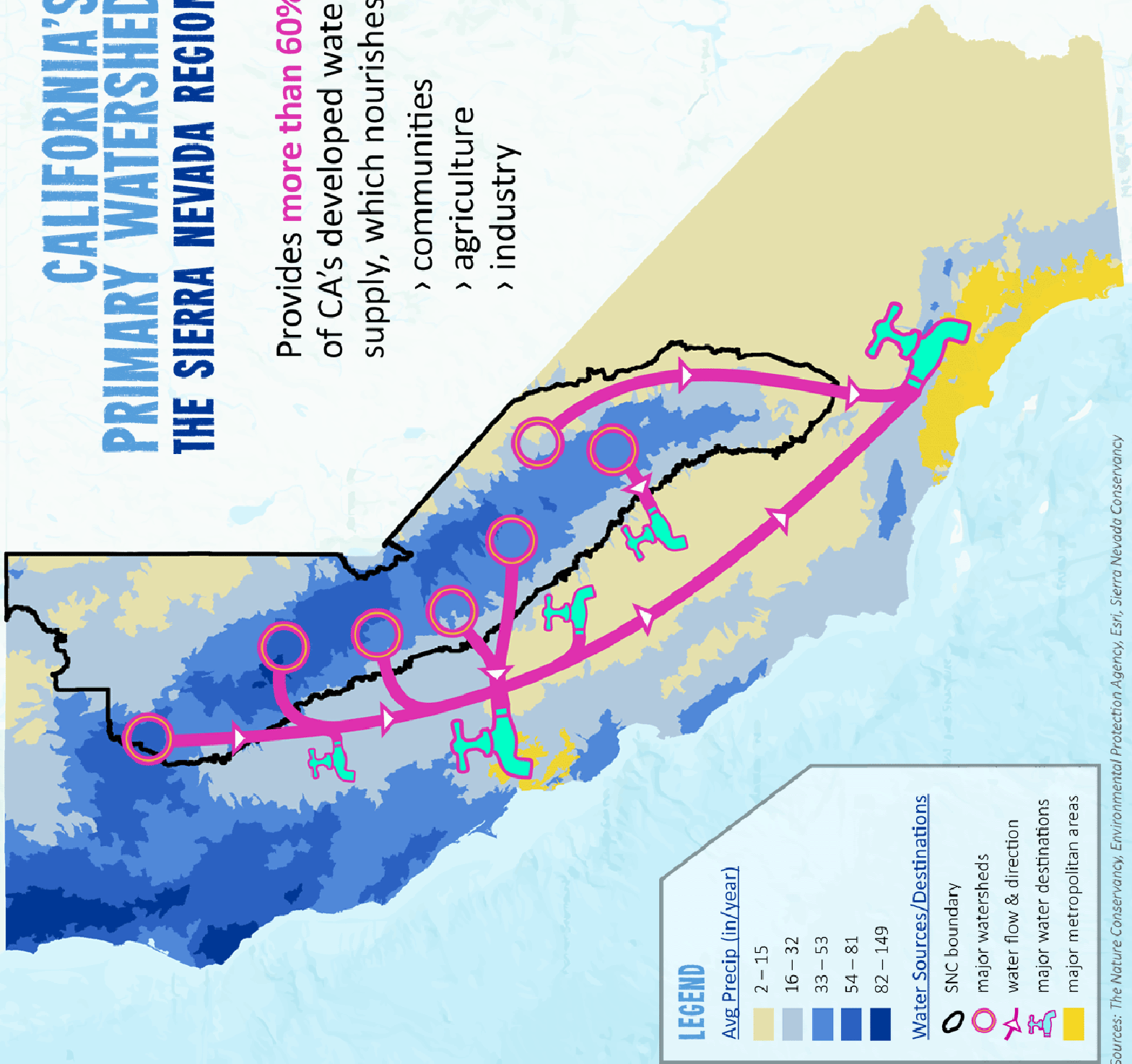
SNC Region



CALIFORNIA'S PRIMARY WATERSHED THE SIERRA NEVADA REGION

Provides **more than 60%**
of CA's developed water
supply, which nourishes:

- › communities
- › agriculture
- › industry



Sources: The Nature Conservancy, Environmental Protection Agency, Esri, Sierra Nevada Conservancy

The State of the Sierra Nevada's Forests *A Report of the Sierra Nevada Conservancy* Fall 2014

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Sierra Nevada Watershed Improvement Program



Many Sierra Nevada Forested Watersheds Aren't Healthy

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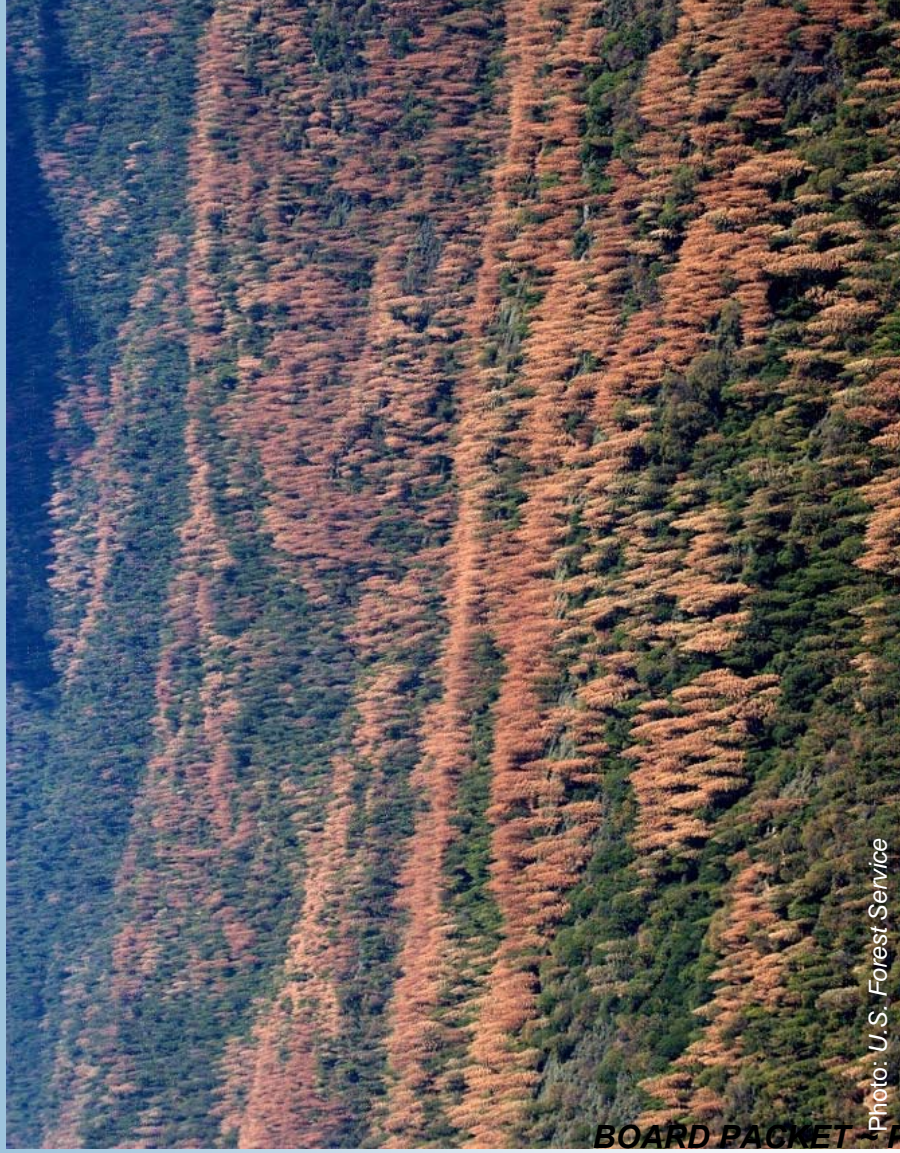


Photo: U.S. Forest Service



Photo: U.S. Forest Service



Photo: KFIAM640

Why is the Watershed Improvement Program Needed?

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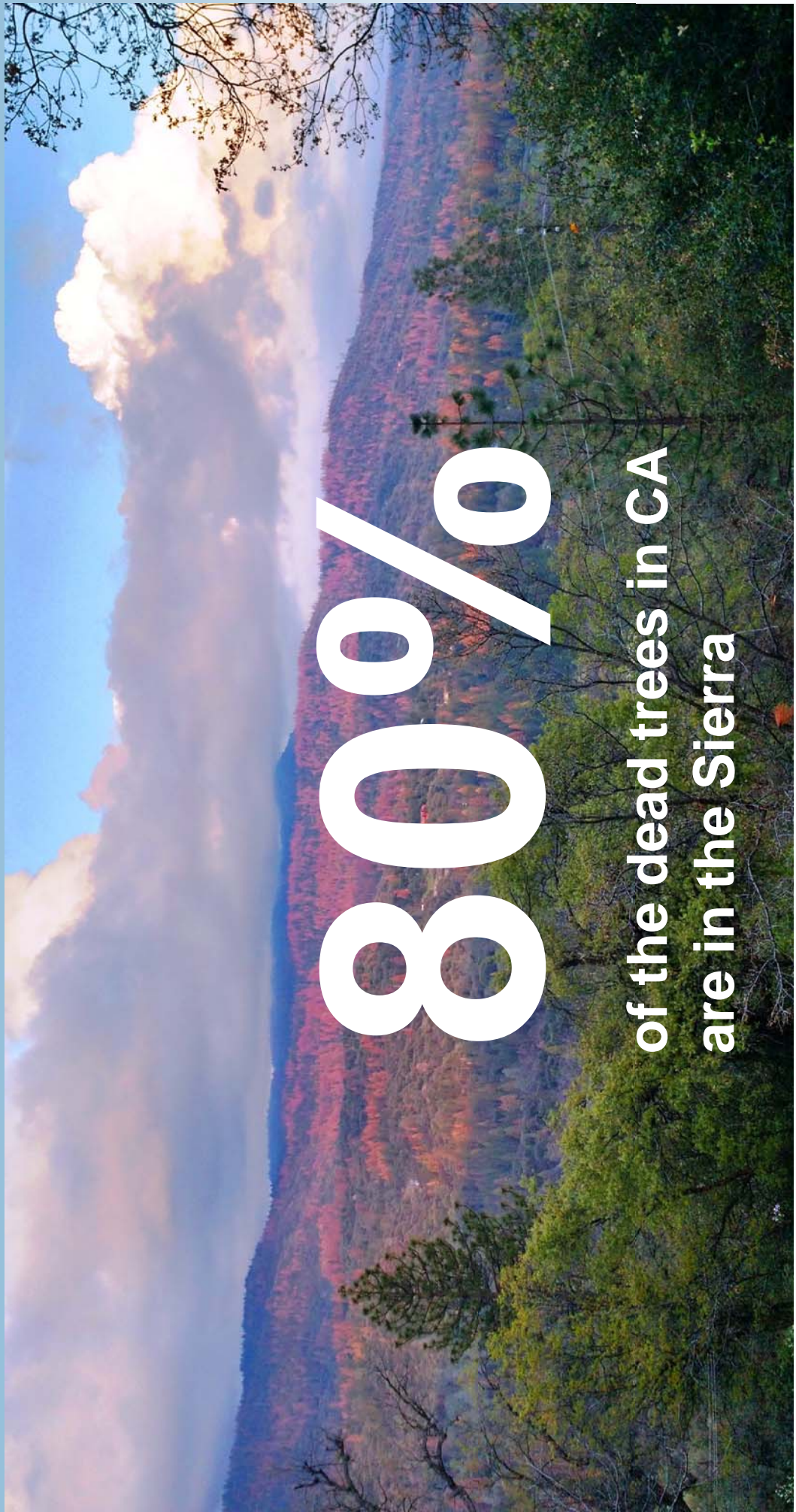


Photo: California Department of Fish & Wildlife

WWW.SIERRANEVADA.CA.GOV

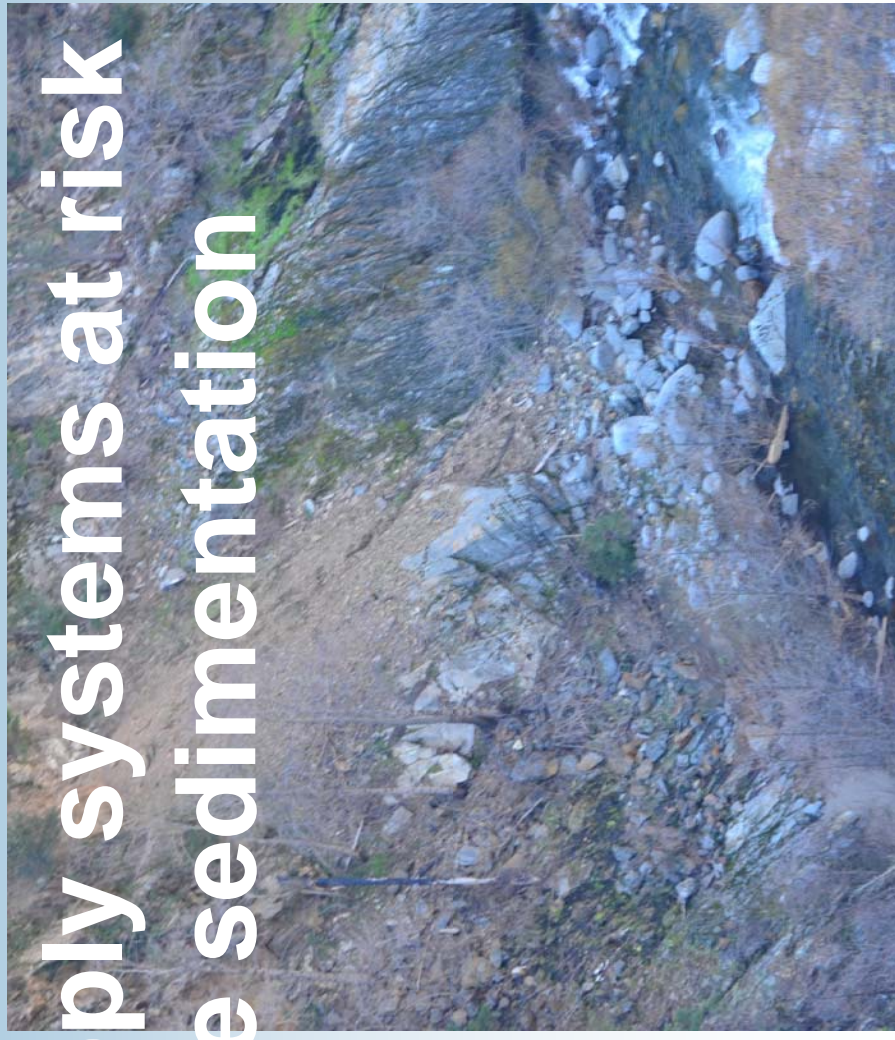
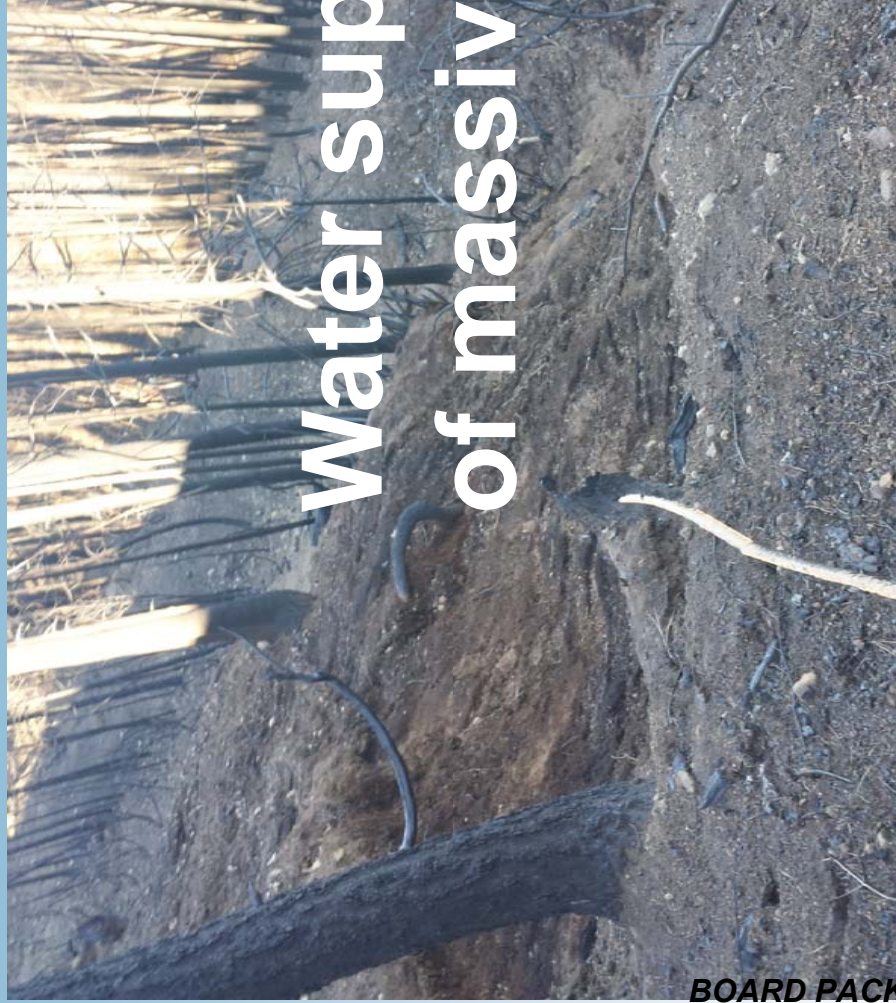
Why is the Watershed Improvement Program Needed?

Fire size and severity is increasing.



Why is the Watershed Improvement Program Needed?

161110



Photos: Placer County Water Agency

WWW.SIERRANEVADA.CA.GOV

Why is the Watershed Improvement Program Needed?

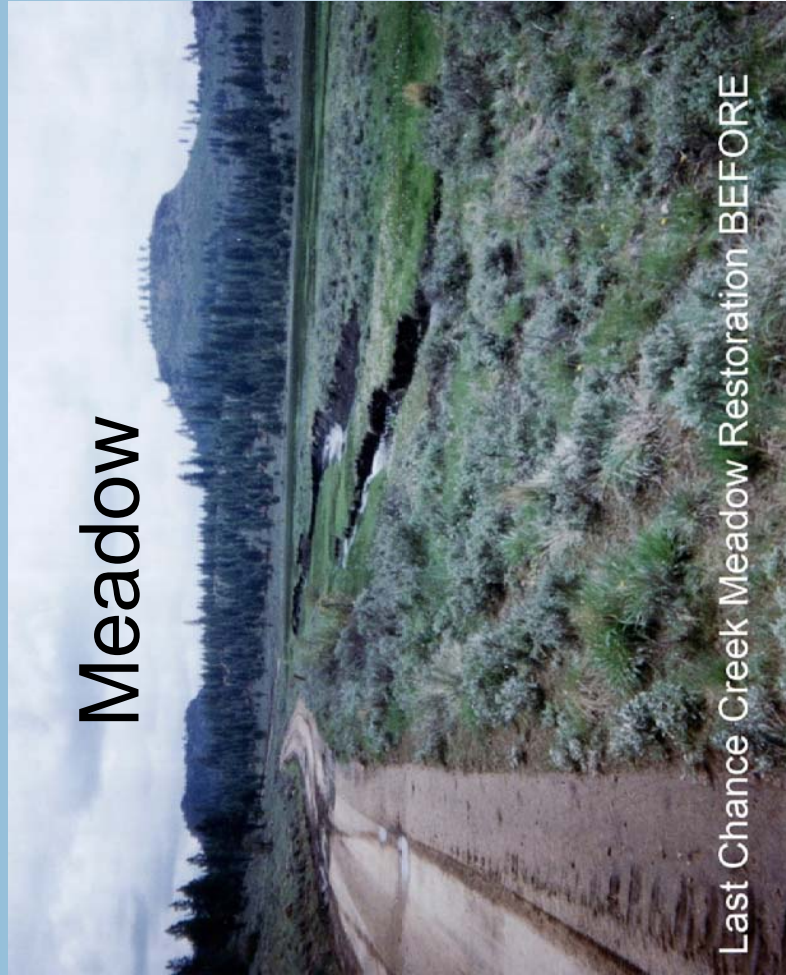


Habitat is Being Adversely Affected

Fish Egg Mass Pre and Post
King Fire 2014

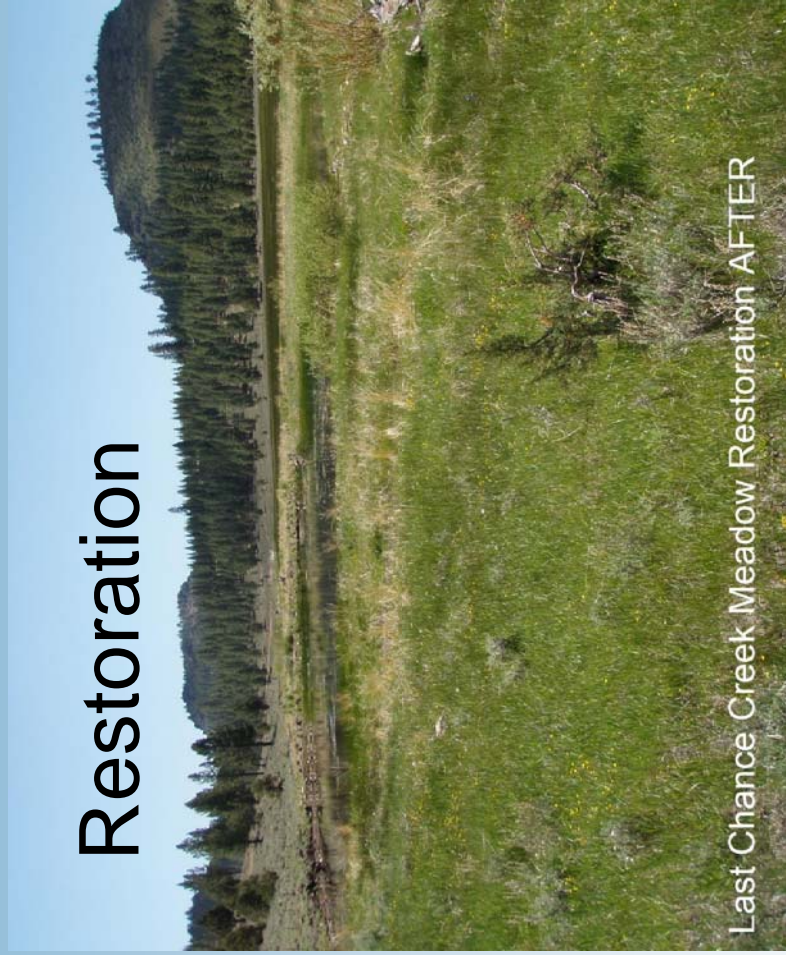
Photos: Courtesy of UC Davis

Meadow



Last Chance Creek Meadow Restoration BEFORE

Restoration



Last Chance Creek Meadow Restoration AFTER

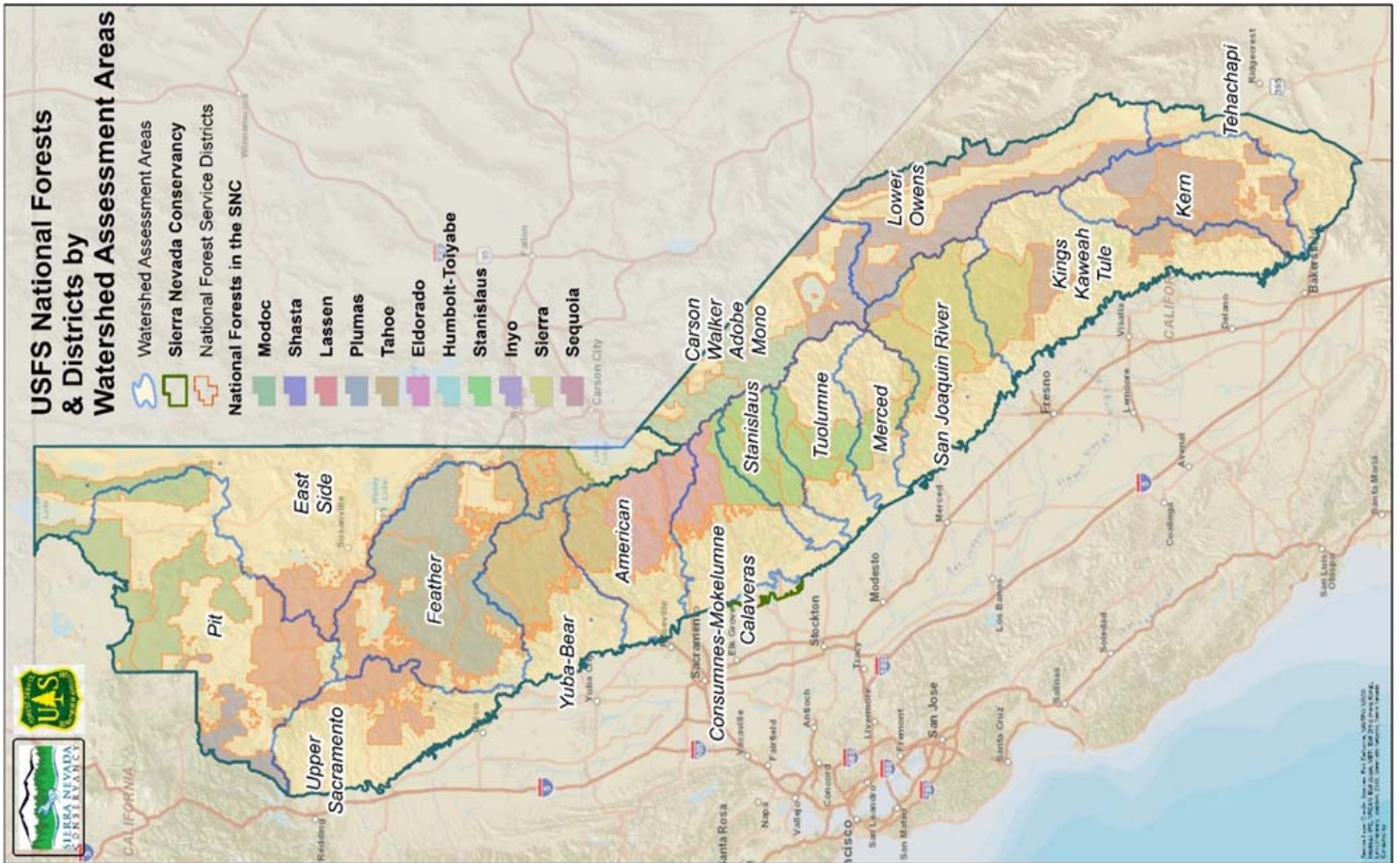
Why is the Watershed Improvement Program Needed?

Severe wildfires release:

- Huge quantities of GHGs and black carbon
- Significant amounts of particulate matter, including PM 2.5



USFS Estimates Restoration Efforts Need To Triple



Desired Outcomes

- **Restore the health and resilience of forests, streams, meadows and communities.**
- **Address tree mortality issue.**
- **Reduce the risk and consequences of large, damaging wildfires.**



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PHOTO: Placer County Water Agency



PHOTO: Susie Kocher, U.C. Cooperative Extension

Desired Outcomes...Continued

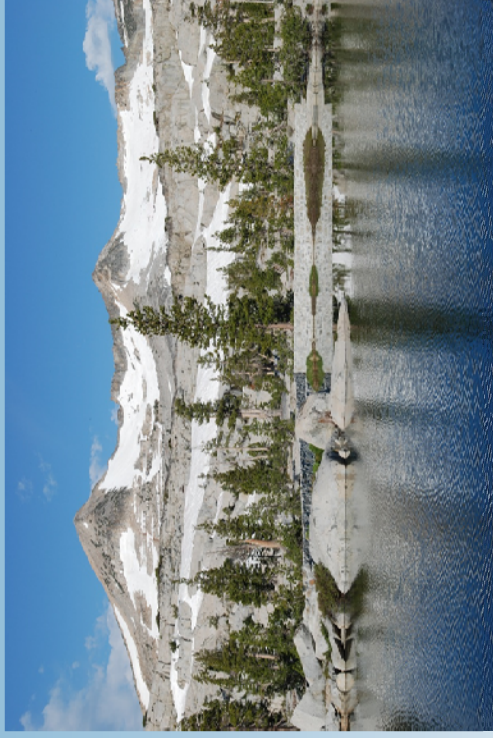
- Improve habitat conditions, **preserve** working landscapes,
- Reduce greenhouse gas emissions and **stabilize** carbon storage.
- **Improve** the quantity and quality of water throughout the year.
- Reduce air pollution and resulting health impacts.



Watershed Improvement Program

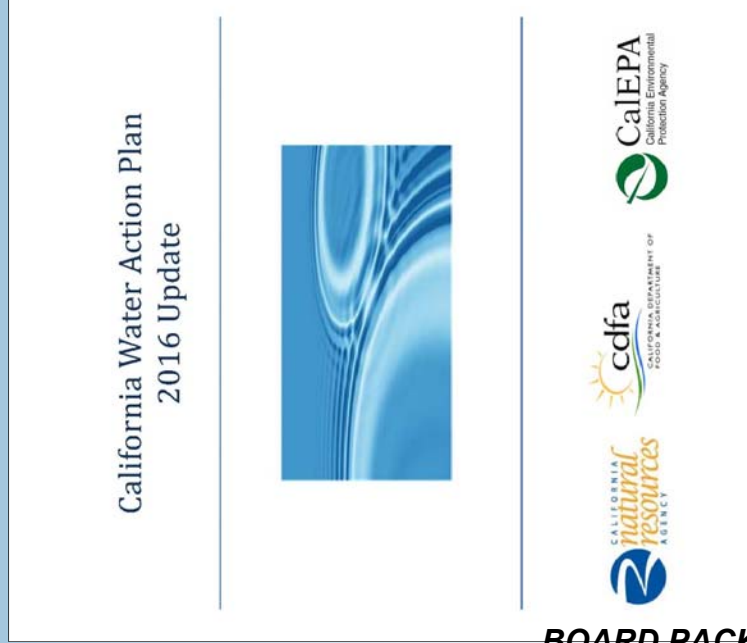
Focus Areas

- Increasing investment in restoration.
- Address key policy issues affecting restoration.
- Increase infrastructure needed for restoration.



WIP Supported in a Number of State Level Plans & Programs

- California Water Action Plan and its Implementation Plan
- AB 32 Scoping Plan, Safeguarding California Climate Adaptation Plan, and GGRF Program
- Governor Brown's Tree Mortality Emergency Declaration
- ACWA Policy Principles on Improved Management of California Headwaters
- Numerous other state and federal plans and programs



The Need to Act is Urgent -- The Foundation for Action Exists

- We have diverse support for the need for increased restoration.
- CA's water reliability, efforts to reduce GHGs and air quality are at risk.
- We need to take on business as usual.



**For more information on the
Sierra Nevada Watershed
Improvement Program,
or to get involved, visit:**

www.RESTORETHESIERRA.org



www.SIERRANEVADA.CA.GOV



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BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Anthony C. Caprio, Fire Ecologist, and Monica Buhler, Natural Resource Program Manager for the Sequoia, Kings and Devils Postpile National Parks

Subject: Rainbow Fire: Past and Contemporary Fire Regimes in Devils Postpile National Monument, CA

Summary

In August 1992 the 3,378 ha Rainbow Fire burned 82% of Devils Postpile National Monument and large areas of the surrounding Inyo National Forest. Large high severity patches with complete tree mortality over hundreds of hectares in size resulted in some conifer forest locations composed of red and white fir and Jeffrey and lodgepole pine. Management questions arose postfire, such as whether the effects of the fire were within the natural range of variability and whether fire should be reintroduced to this landscape. However, little or no information on pre-Euroamerican settlement fire regimes existed for the area. Using fire effects plots established postfire, fuel and forest conditions and conifer regeneration patterns were examined in the monument at sites burned with varying severity. Additionally, fire history sampling provided information on past fire return intervals in varying vegetation types. These fire history reconstructions showed that the area experienced moderate fire frequency (8 to 33 years between fires) and indicated that a surface fire regime predominated. The plot data showed that by ten-years postfire, fuel loads were approaching prefire levels at some sites and most high severity patches were now shrub dominated with shrub dominance continuing to increase 20-years postfire. Conifer regeneration is plentiful in areas under or adjacent to surviving overstory trees but limited in areas >100 m from surviving trees, most likely due to a lack of seed source. Nearly all regeneration at the latter sites was Jeffrey pine originating shortly postfire from seed that survived the fire (seed caches?). This information suggests application of fire to areas of low-to-moderate severity would be beneficial for restoring and maintaining a more resilient lower density forest where fuels would be lower, burn operations and smoke production more manageable, and forests would be less subject to adverse ecological fire effects. However, questions remain on the management of the large high-severity patches where fire might lead to long-term persistence of shrubs and loss of limited tree regeneration.

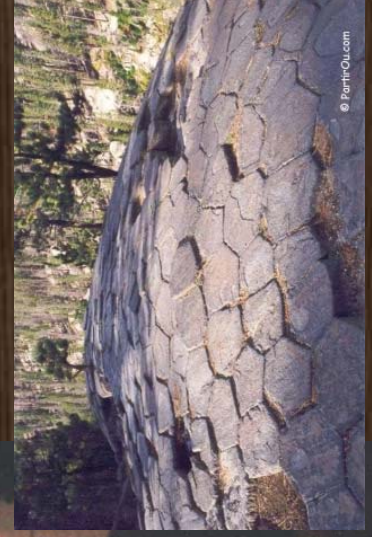
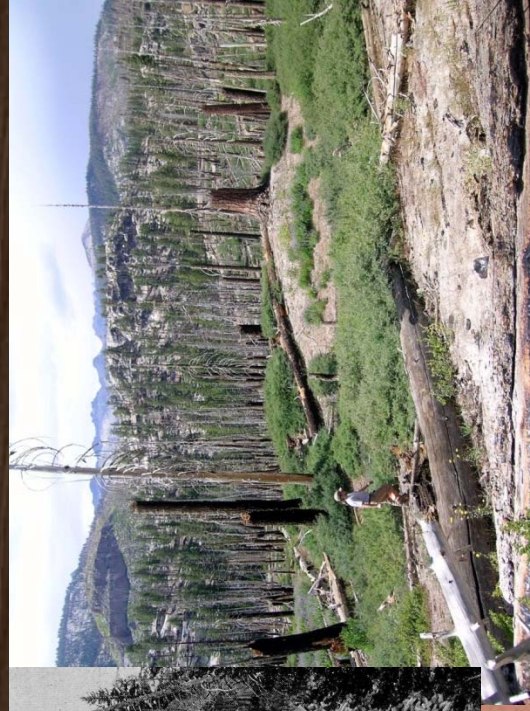
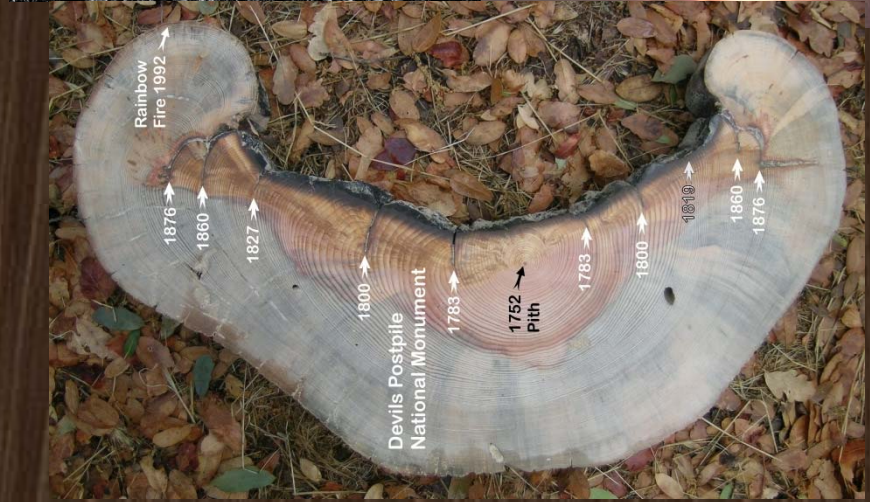
Board Action:

None.

Attachments: Slideshow presentation, "Rainbow Fire: Past and Contemporary Fire Regimes in Devils Postpile National Monument, CA"

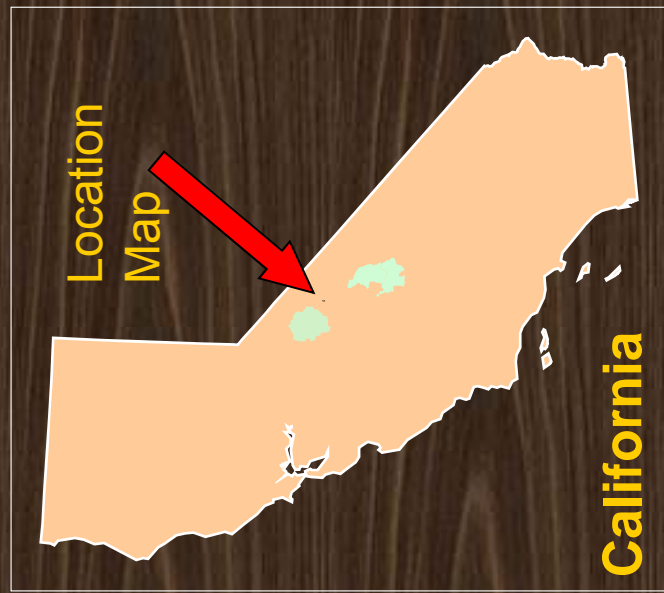
Rainbow Fire: Past and Contemporary Fire Regimes in Devils Postpile National Monument

*Anthony Caprio, Sequoia & Kings Canyon N.P.,
Monica Buhler, Devils Postpile N.M.*

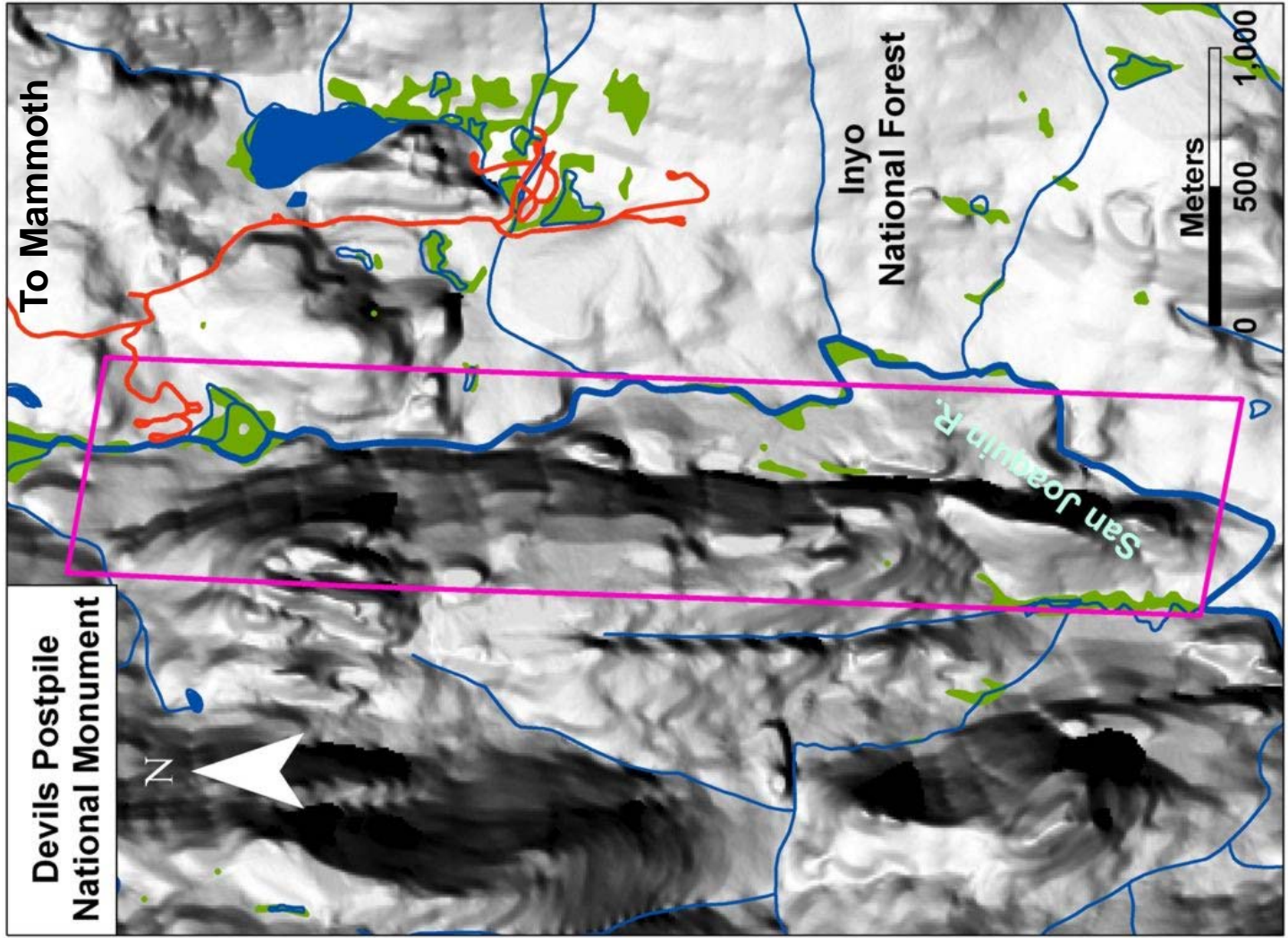


Devils Postpile National Monument

- 322 ha unit located in the upper San Joaquin watershed, Sierra Nevada
- elevations range from 2182 to 2485 m

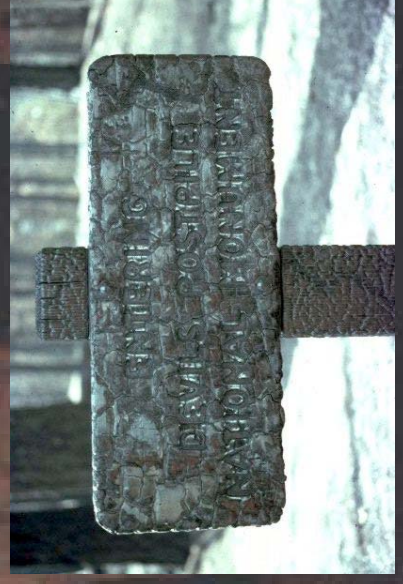


AFE 2006 DEPO

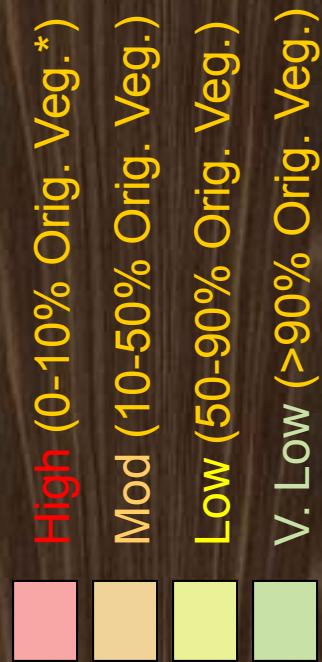


Rainbow Fire

- Ignited by lightning Aug. 20, 1992 six miles below the monument on Inyo N.F.
- High winds (60+ mph) spread the fire to 2,400 ha in 24 hr.
- By Sept. 8 about 3,378 ha had burned including 265 ha (82%) of the monument.
- Large portions of the burn were high severity.

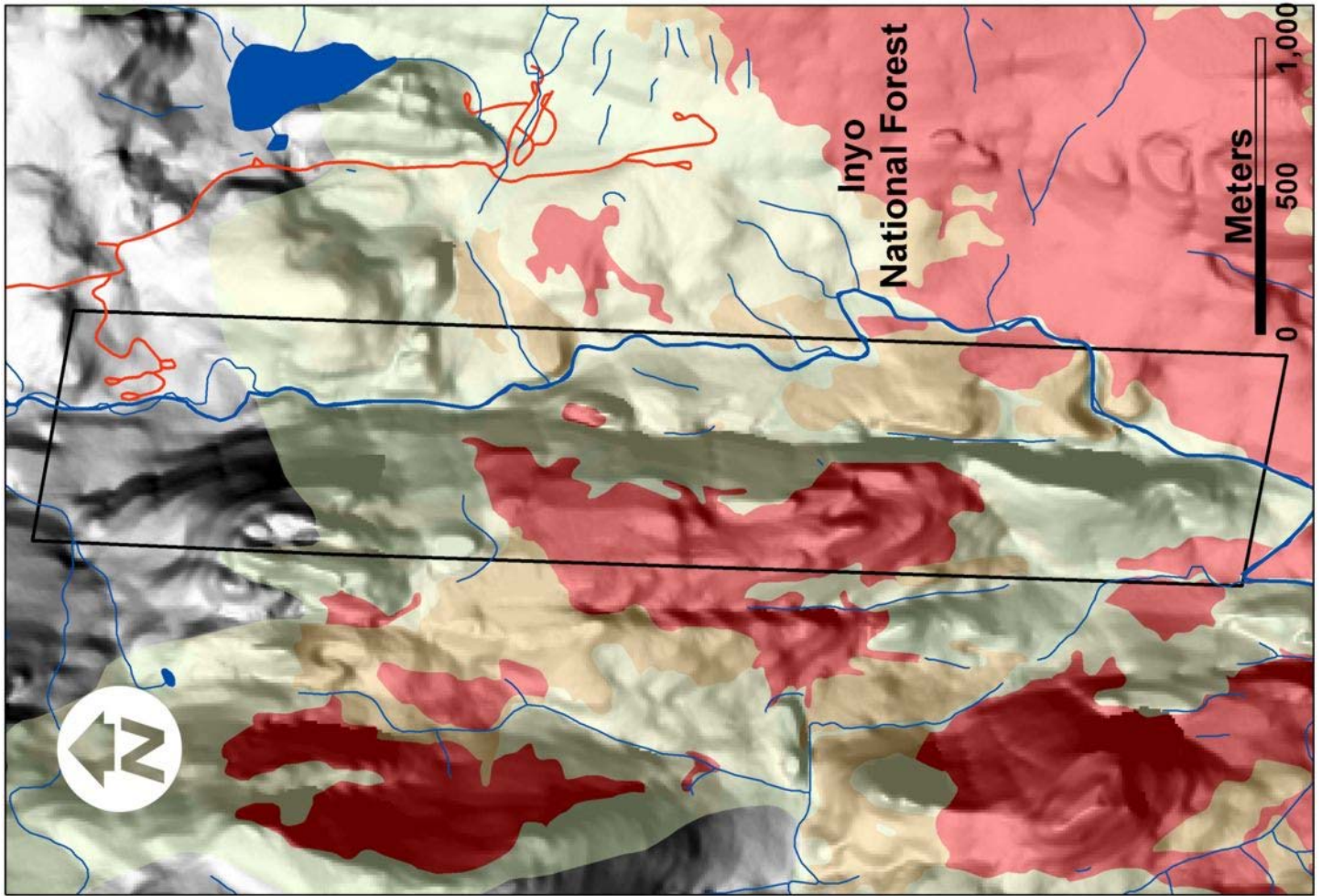


Fire Severity Map (based on mapping for YOSE vegetation)



*Percent of original vegetation
remaining

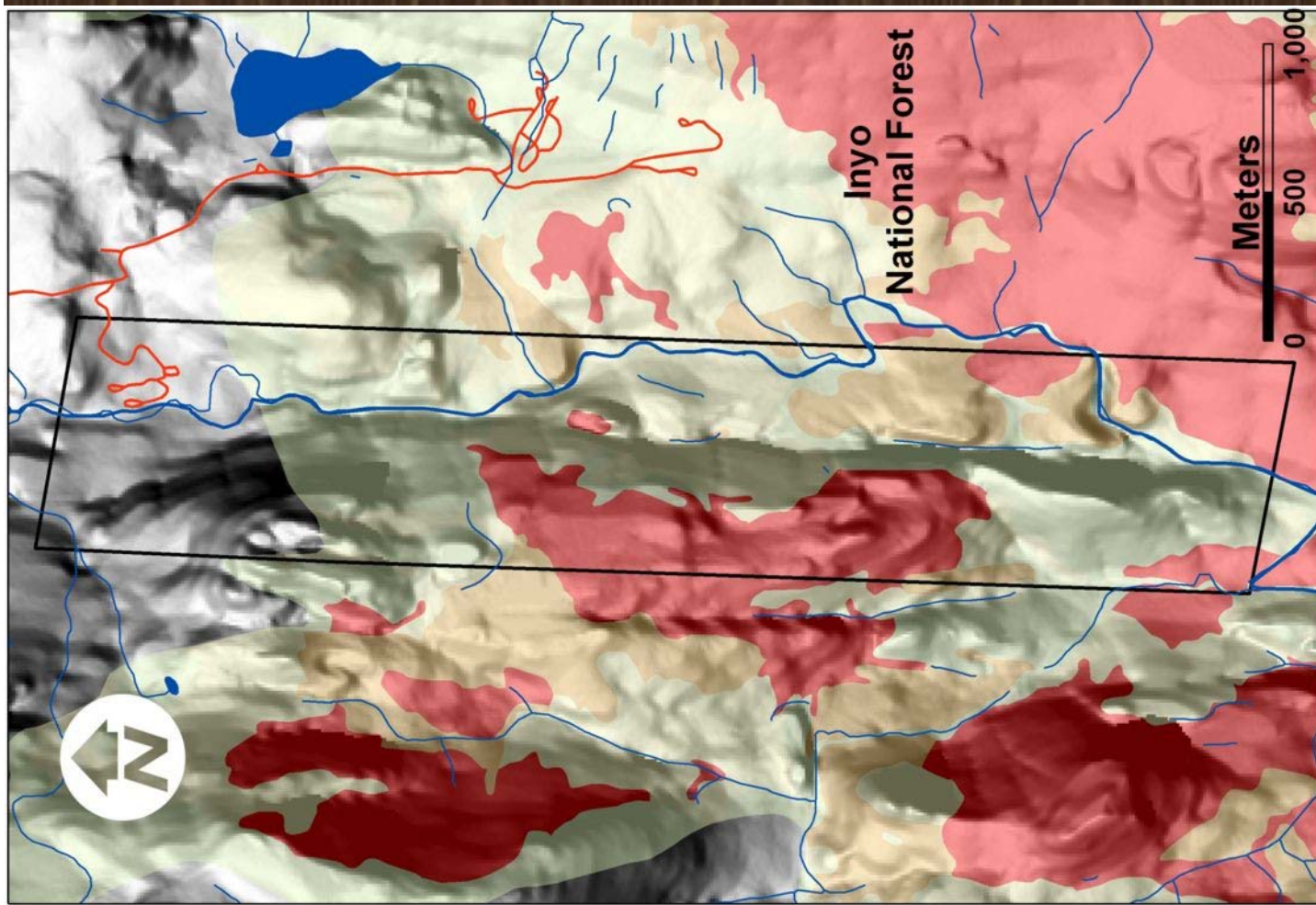
AFE 2006 DEPO



Types of Sampling and Plot Locations

- 1) Fire Effects - NPS FMH
(1992 - 2012)
- 2) Tree Regeneration
(2004 & 2013)
- 3) Fire History (2004)

GBAD 2016 DEPO

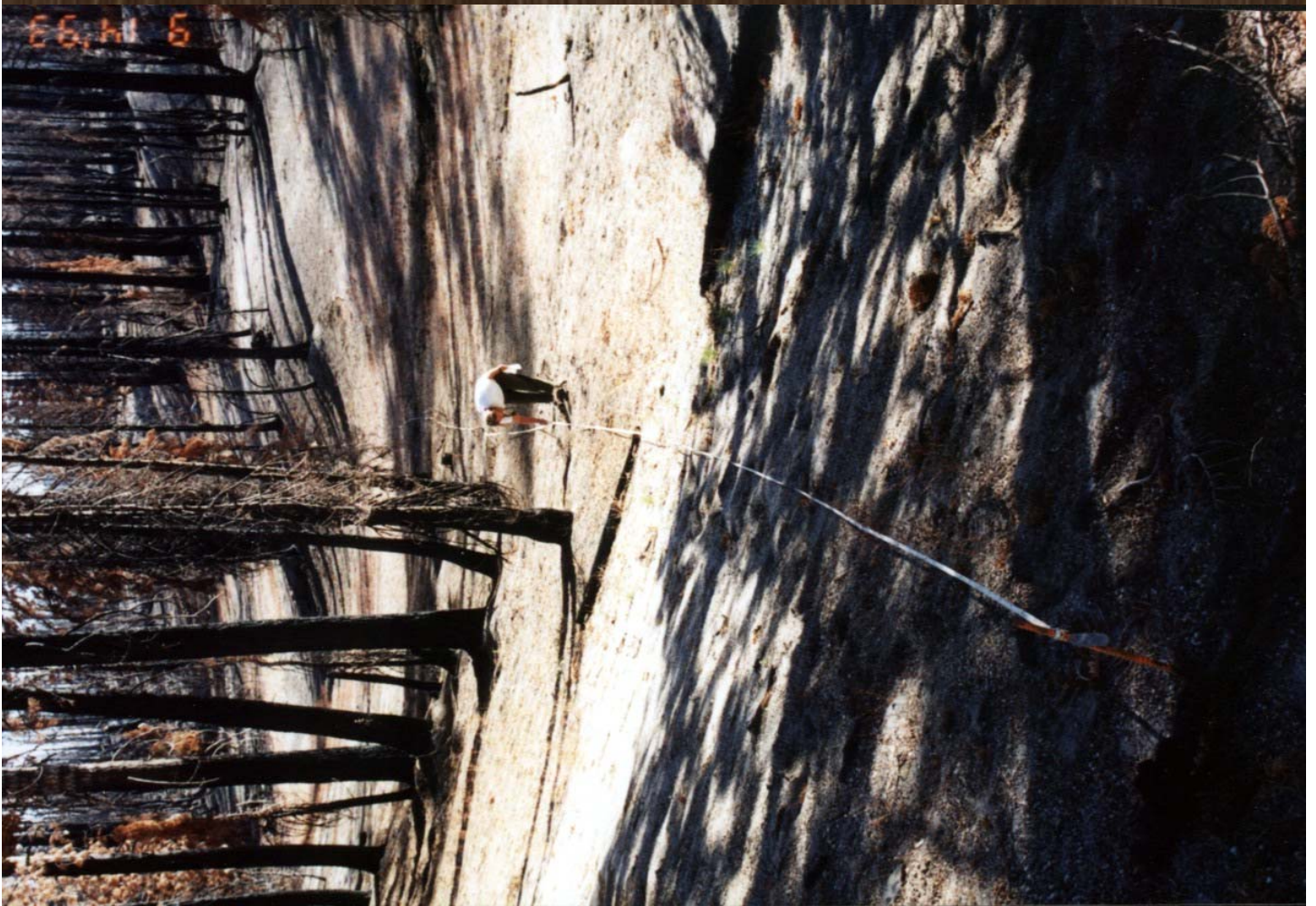


Sept. 1992
Immediately
Postfire (YR00)
High / Moderate
Severity



AFE 2006 DEPO

1993
(YR01)



AFE 2006 DEPO

1994
(YR02)



AFE 2006 DEPO

1997
(YR05)



AFE 2006 DEPO

2002
(YR10)

Will be sampled again in 2012



AFE 2006 DEPO

2012
(YR20)

Will be sampled again in 2022



GBAD 2016 DEPO

Low Severity

GBAD 2016



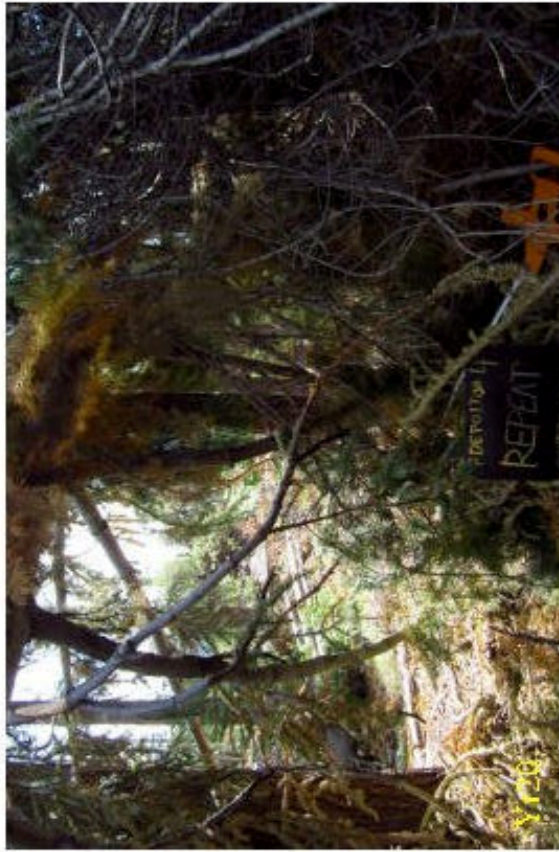
Unburned

Nov. 2011 Blowdown Effects

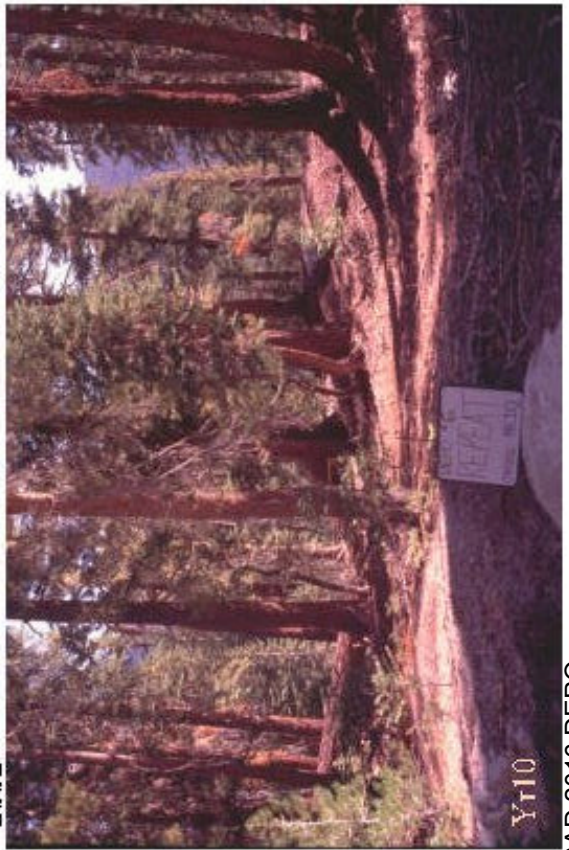
DEPO 4, unburned, Repeat
2002



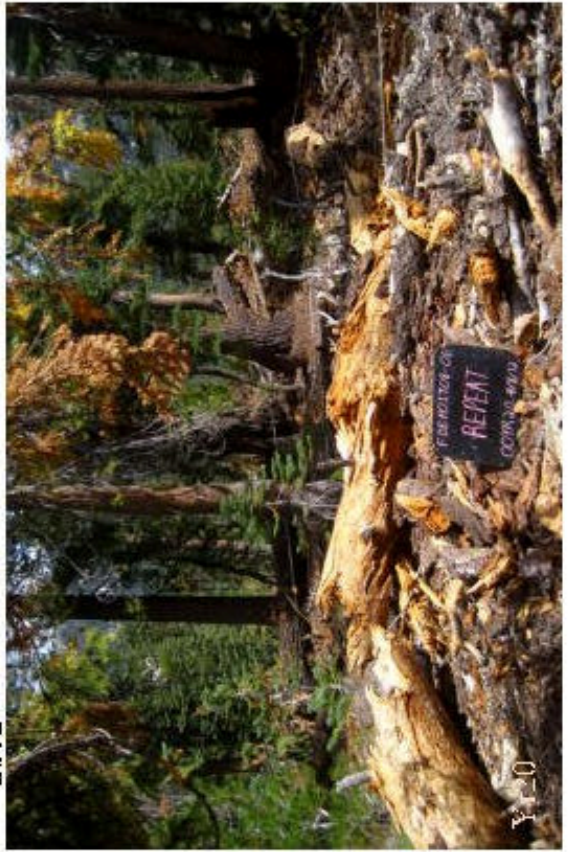
2012



DEPO 6, unburned, Repeat
2002



2012



Severe Blowdown Effects at Some Unburned Sites

2013



2004



Objectives

- Examine postfire vegetation responses using fire effects plots installed immediately postfire and sampled 6 times from 1992-2012.
- Examine postfire tree regeneration in relation to fire severity.
- Reconstruct patterns of past fire occurrence and examine its role in vegetation dynamics.
- What might this mean for management of the monument?

Fire History

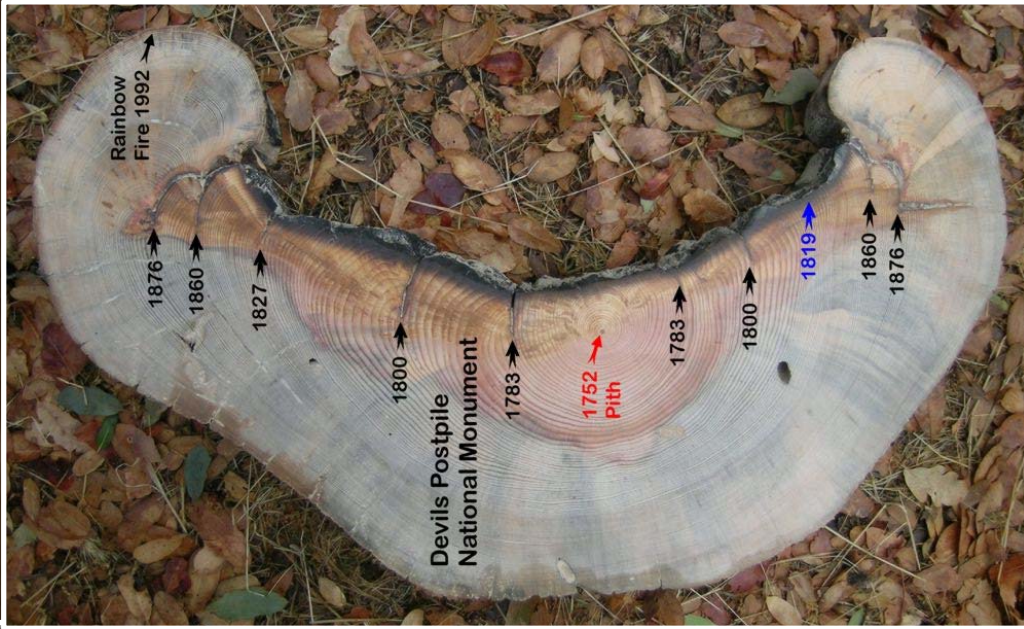
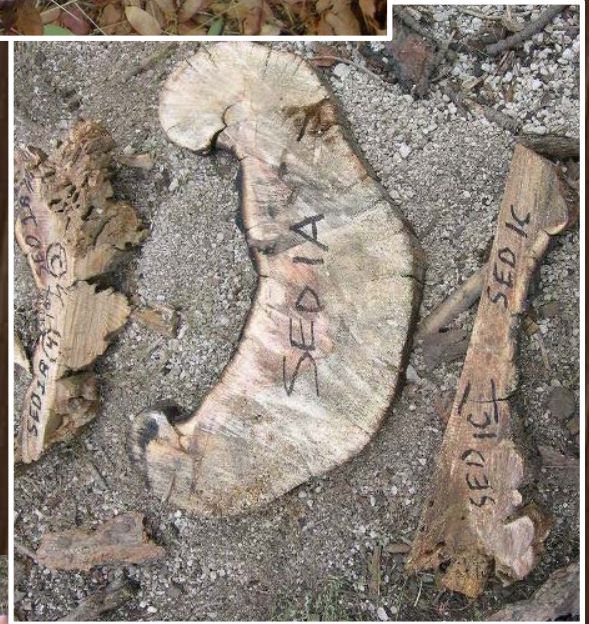
Reconstructing Patterns of Past Fire Occurrence



GBAD 2016 DEPO

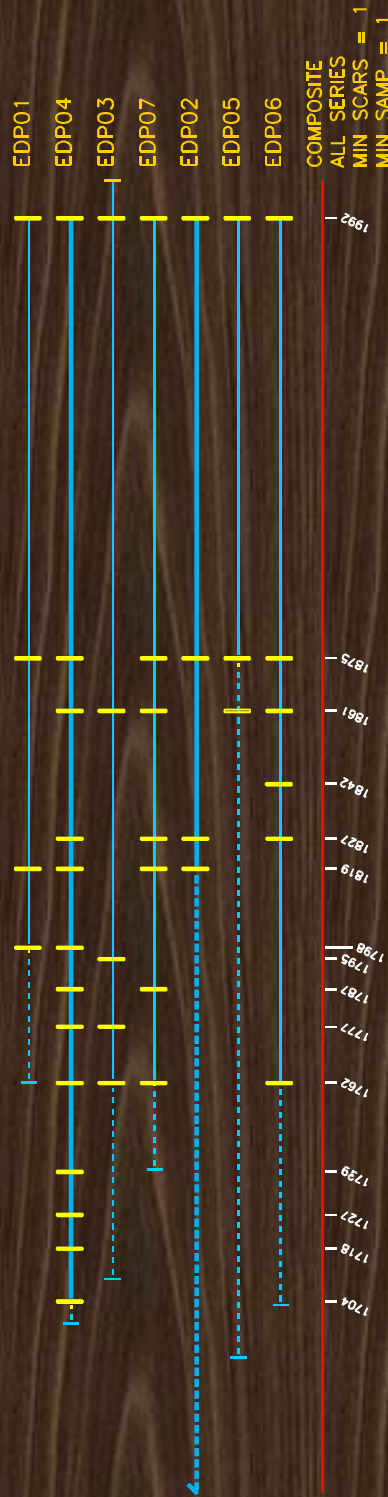
Collecting and Crossdating Fire History Samples

GBAD 2016 DEPO

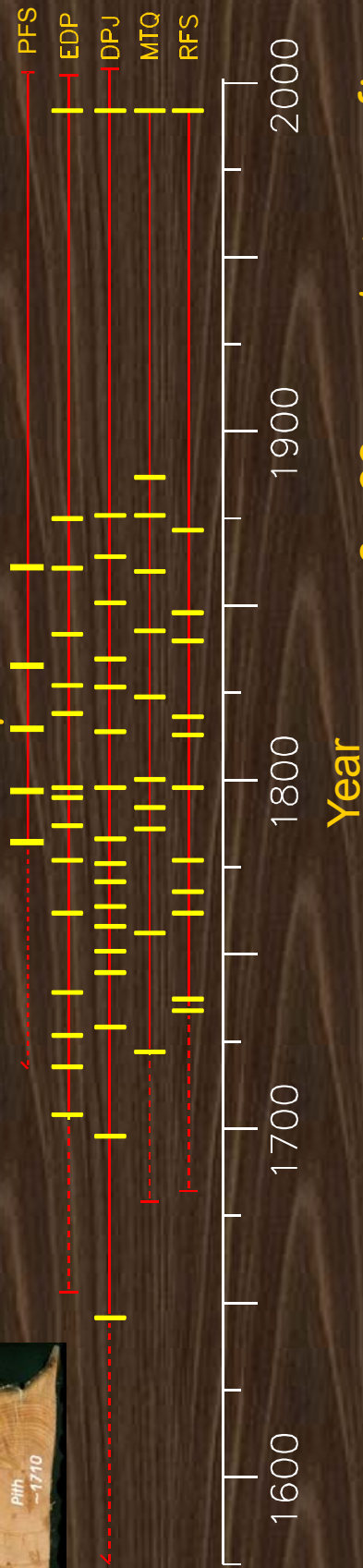


DEPO Fire History Chronologies

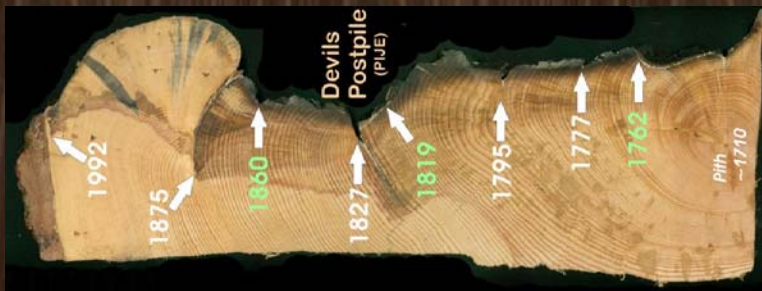
Site Chronology (EDP) - Showing Individual Trees Sampled



DEPO Composites Each Site

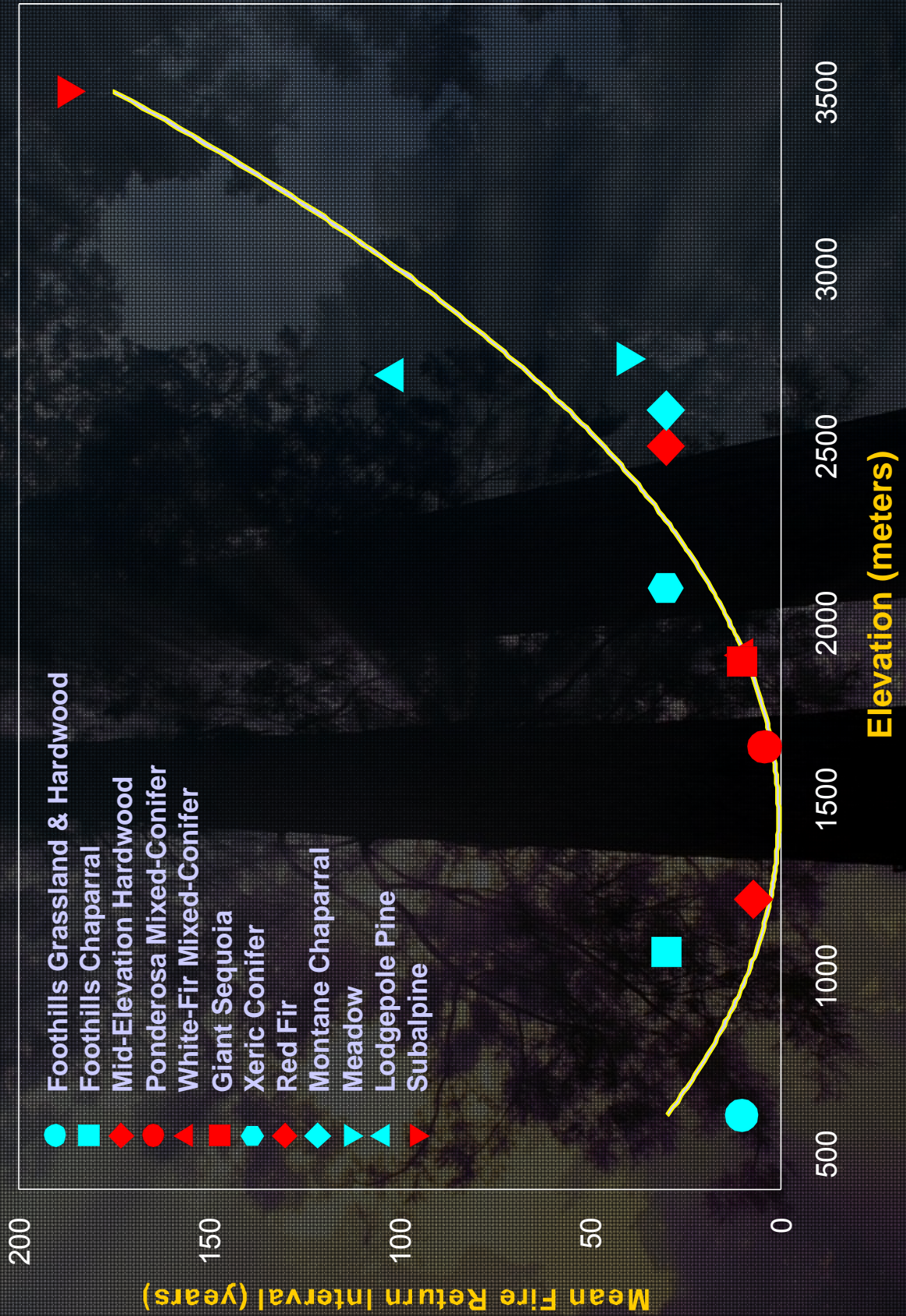


8 - 33 years between fires



Landscape Patterns of Fire Frequency

MFRI Across Elevation by Major Vegetation Class



(from Caprio & Lineback 2002)

FMH Plots (0.1 ha)

Six Burned Sites

- Low severity (2 plots)
- Moderate severity (2)
- High severity (2)

Four Unburned Sites

No PreBurn Data

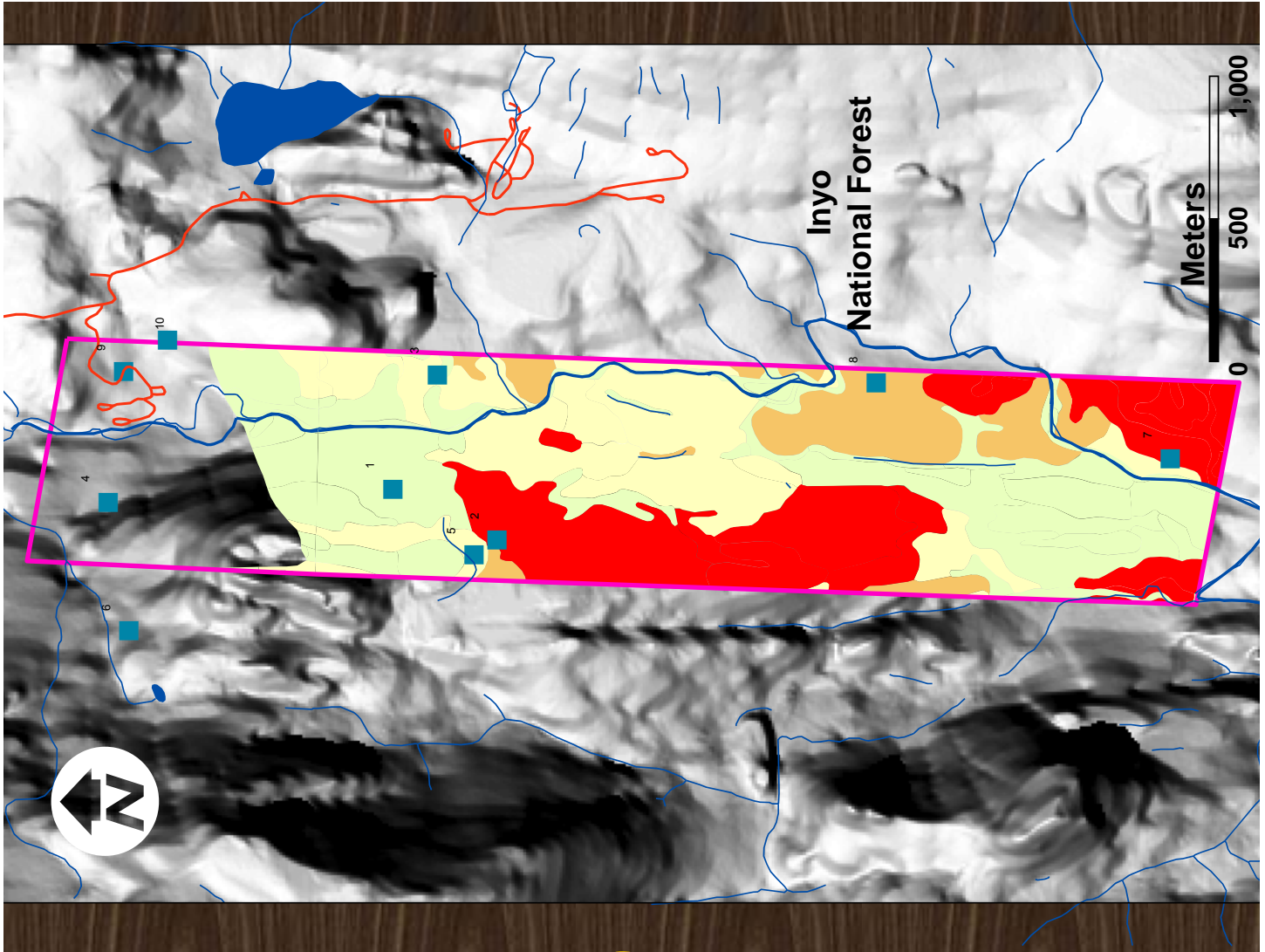
Regeneration Plots (0.1 ha)

No PreBurn Data

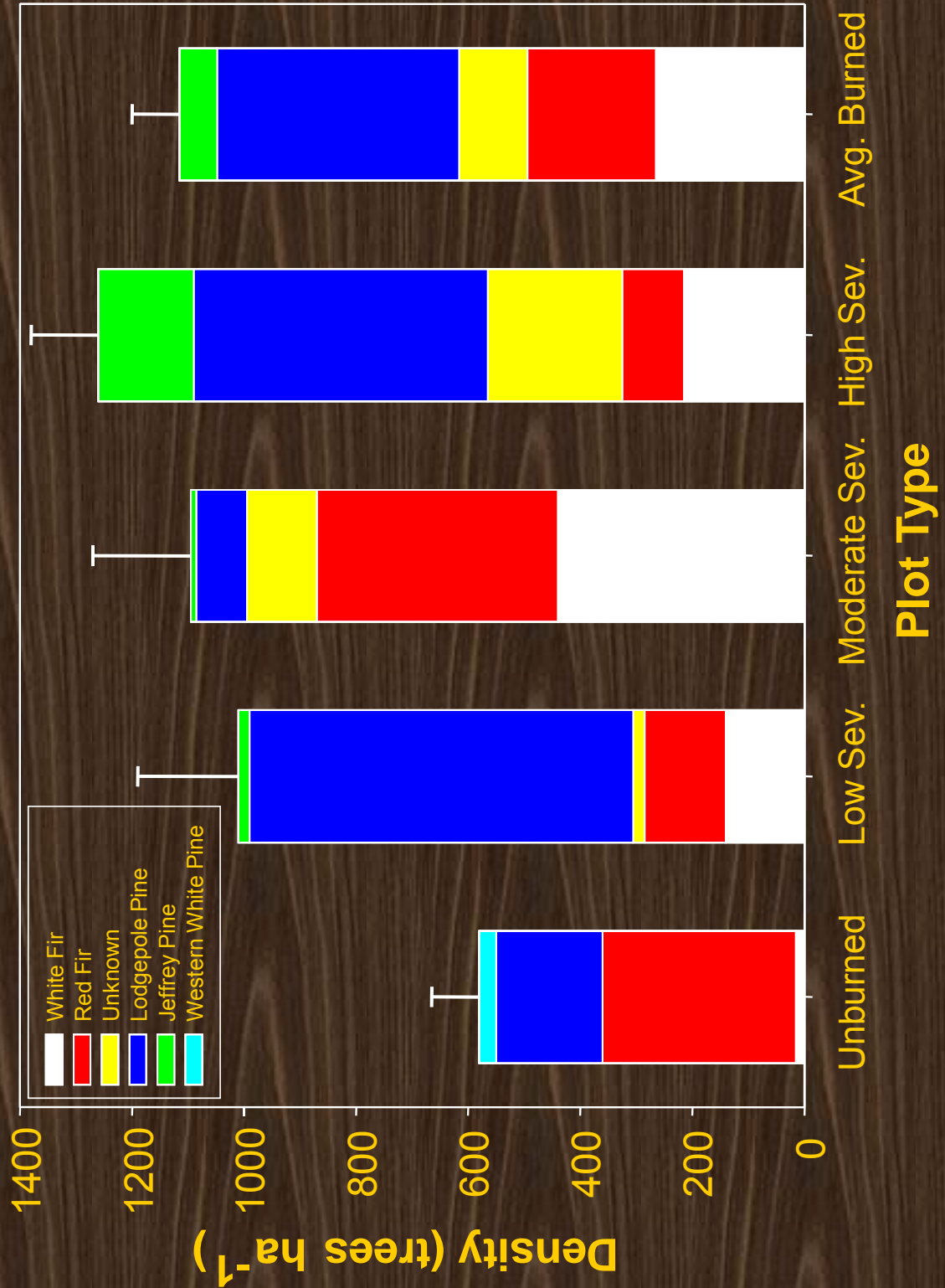
PostBurn Sampling in:

- 1) Unburned (9)
- 2) Low/Moderate Severity (some canopy remaining) (12)
- 3) High Severity <100 m from living canopy trees (9)
- 4) High Severity >100 m from living canopy (9)

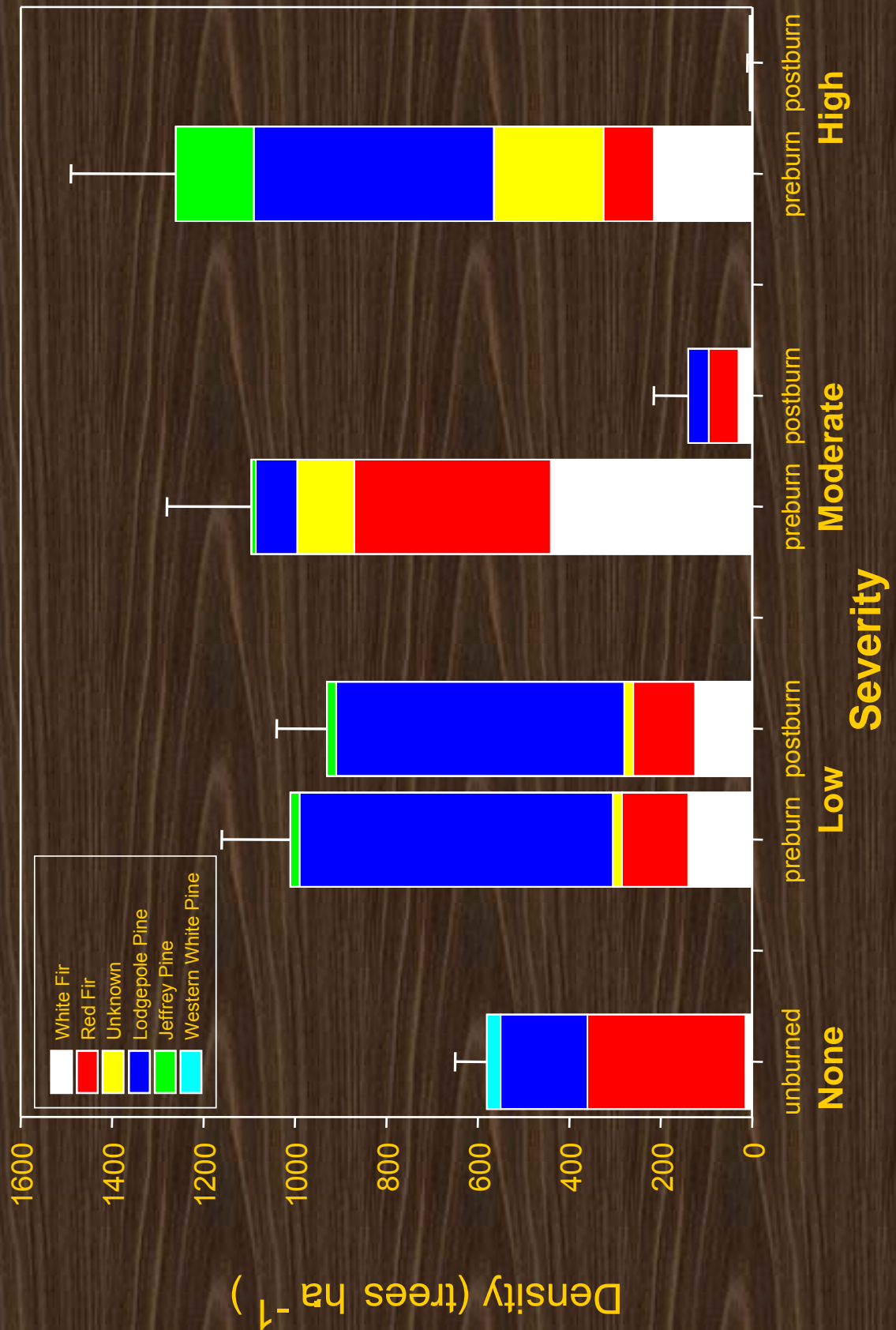
GBAD 2016 DEPO



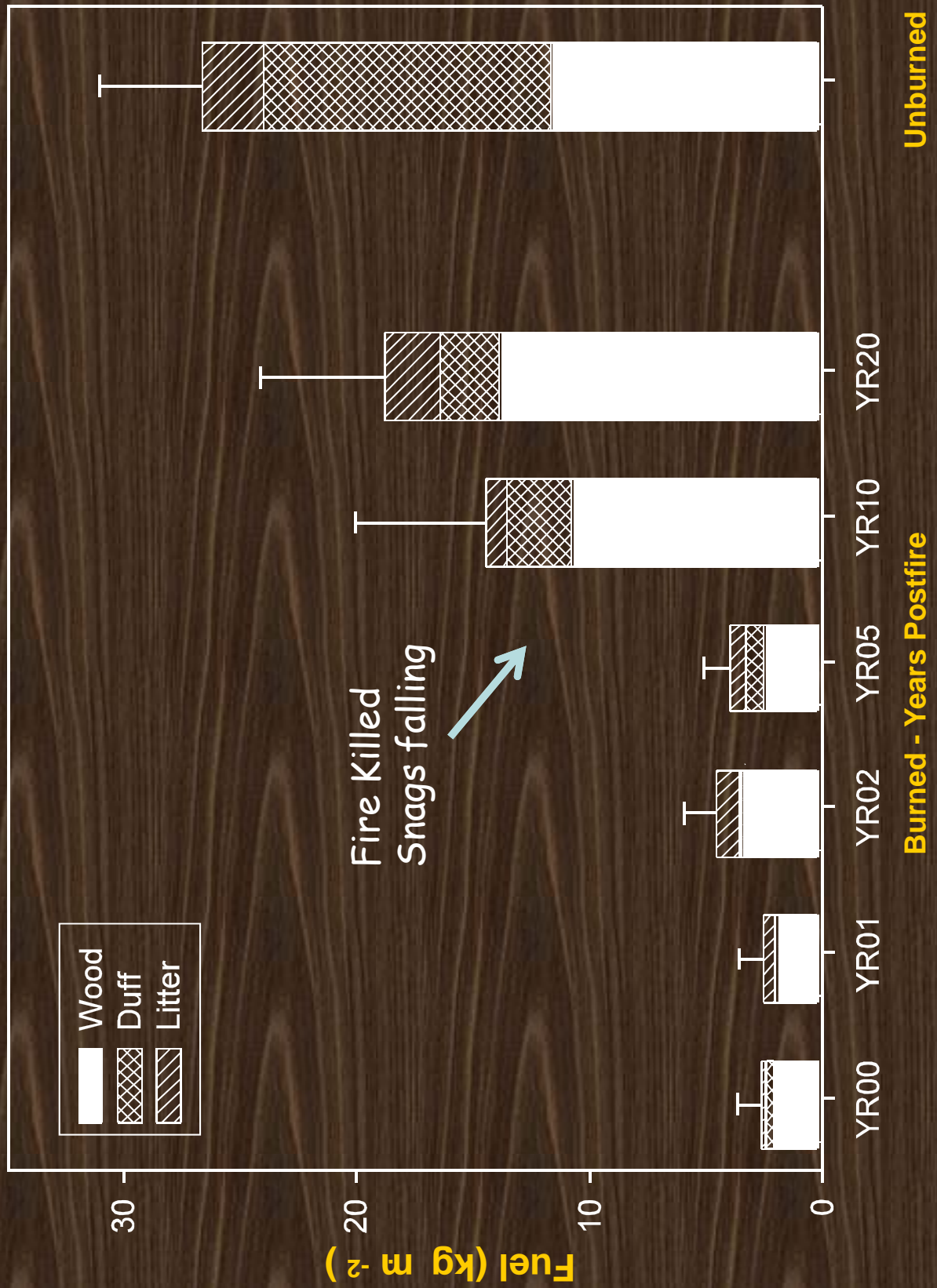
Reconstructed Prefire Tree Density in 1992 (YR00) - FMH plots



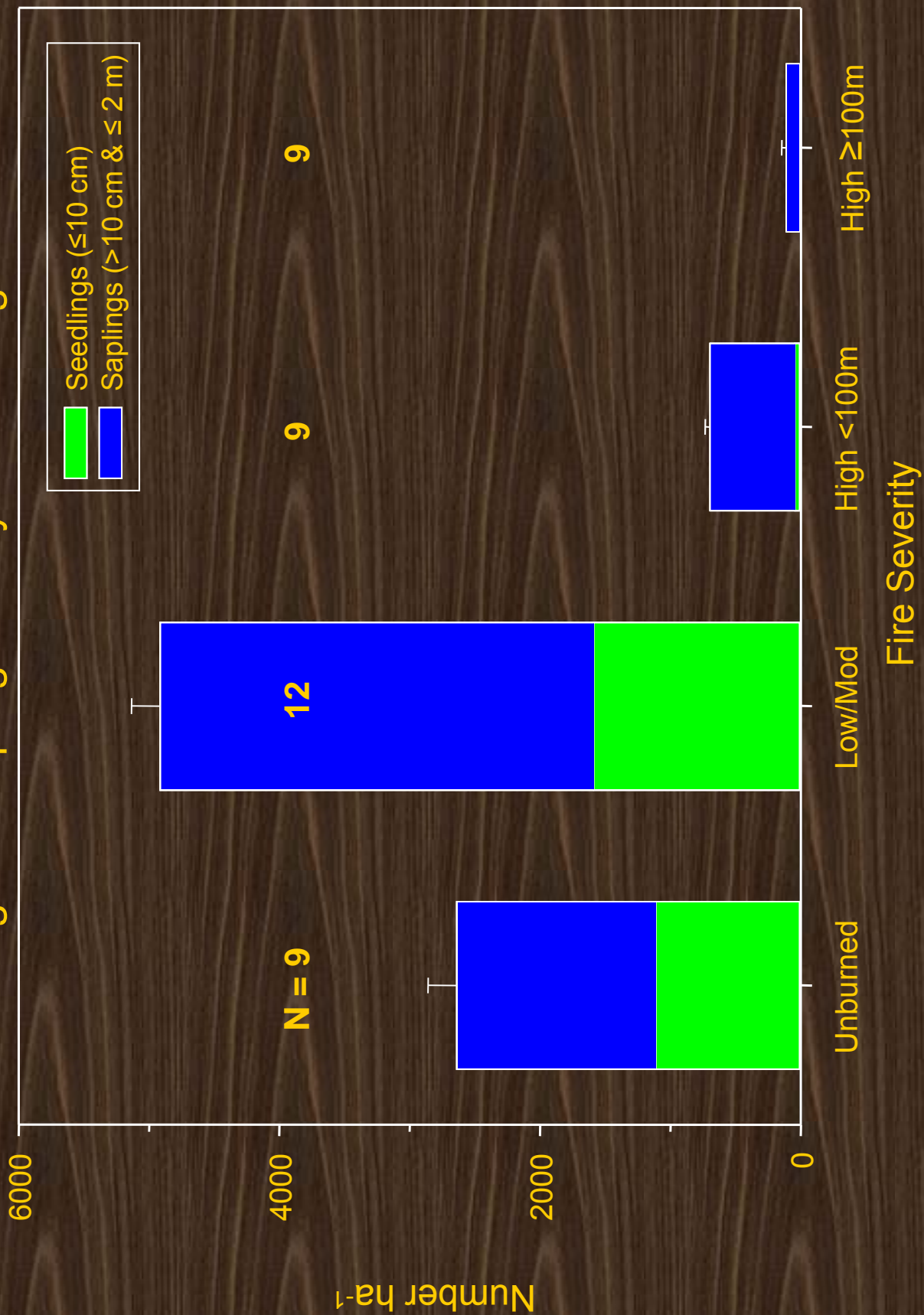
Pre and Postfire Tree Density - FMH Plots Reconstructed Preburn vs 1992 Postburn (YR00)



Fuel Loads - Burned and Unburned FMH Plots

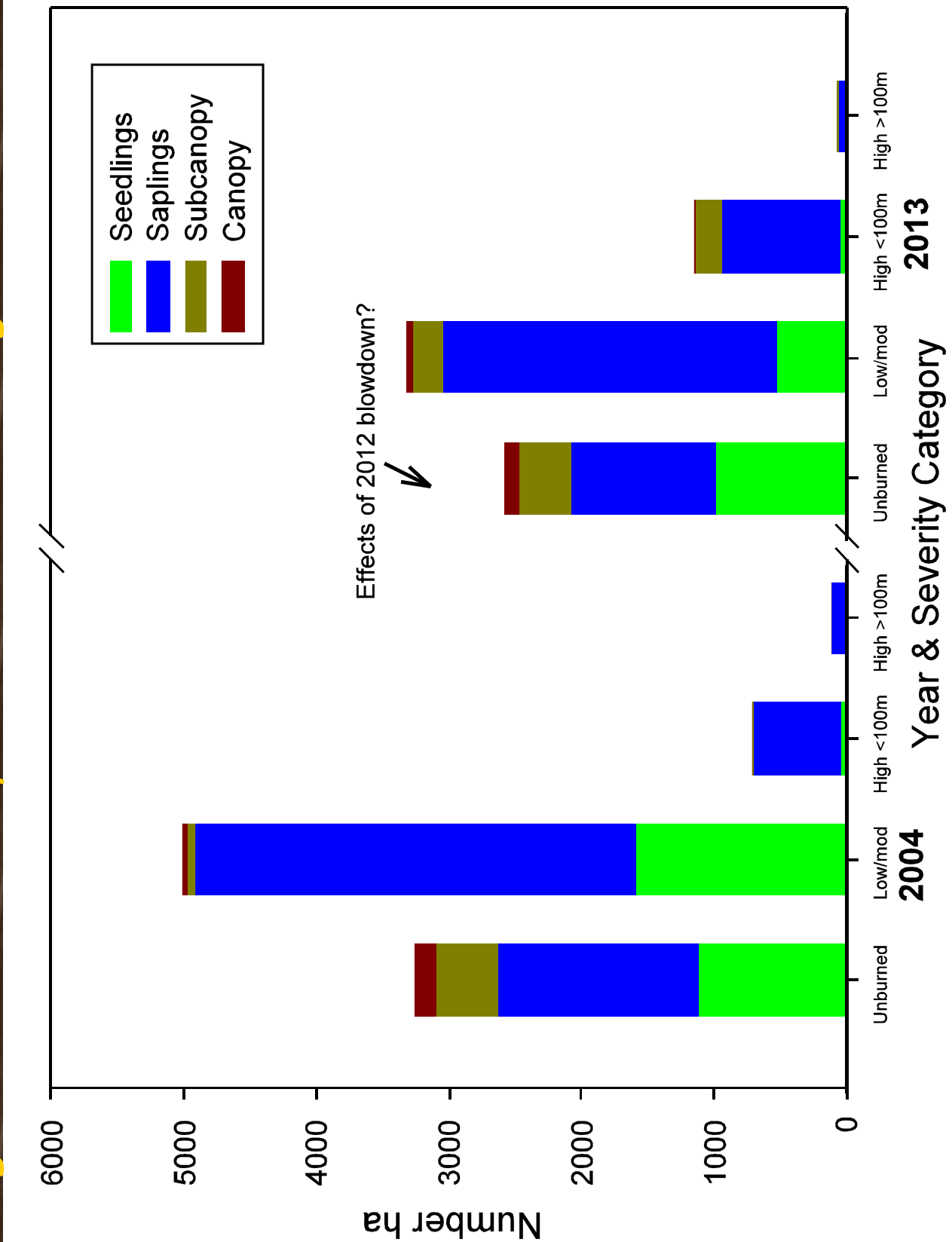


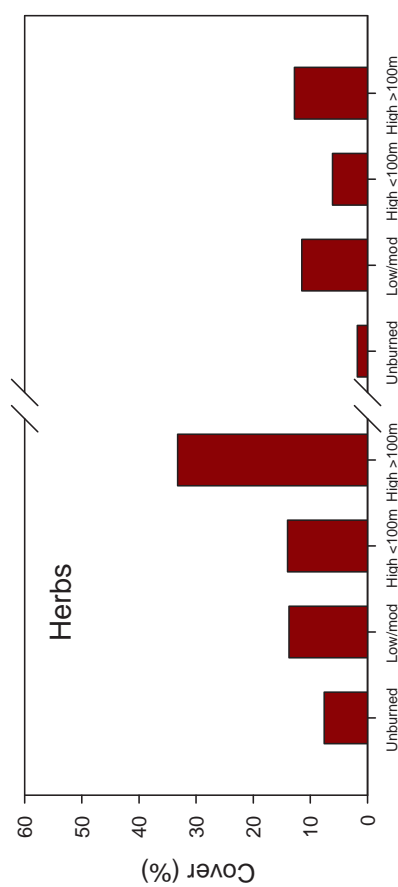
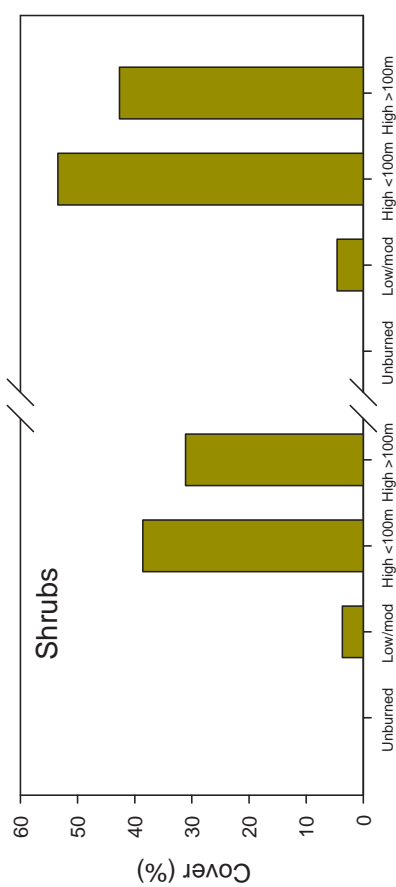
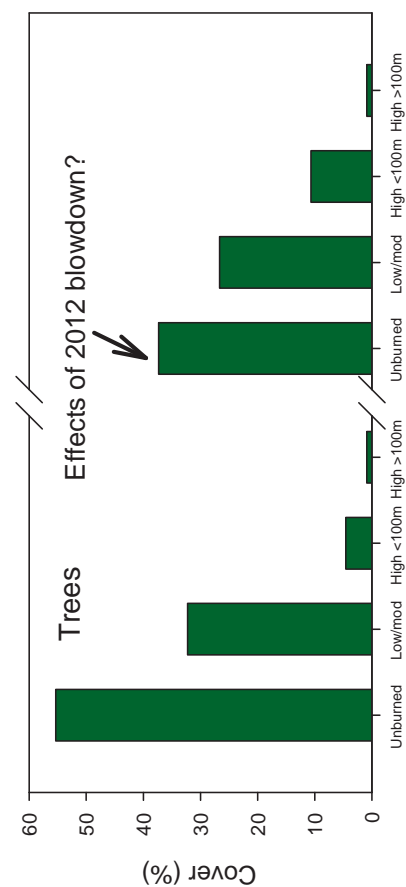
Seedling and Sapling Density 2004 - Regeneration Plots



AFE 2006 DEPO

Change in Tree Density 2004 - 2013 at Regeneration Plots





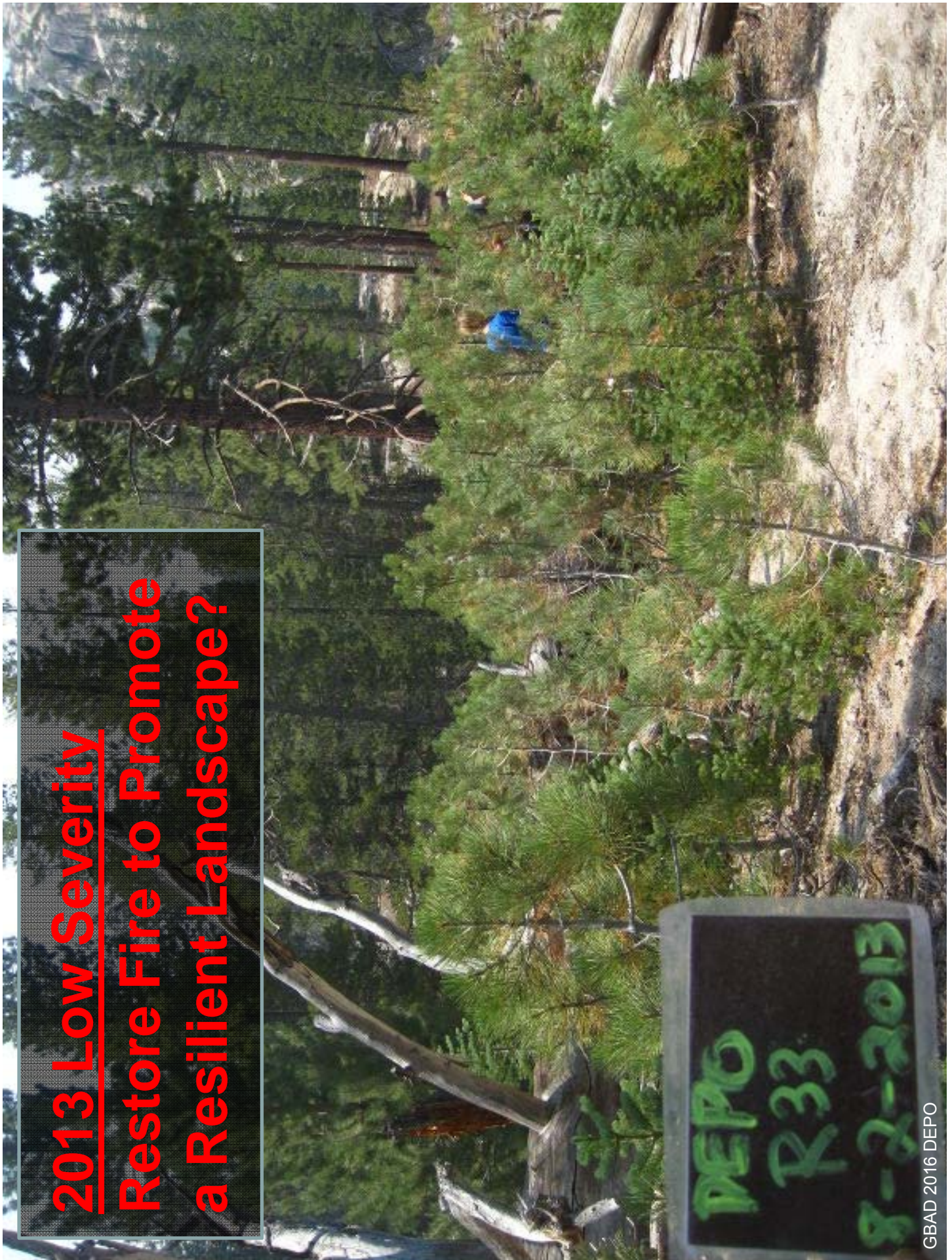
2013
Year & Severity Category

**Change in Cover by
Severity Type &
Change in Cover
from 2004 to 2013**

GBAD 2016 DEPO

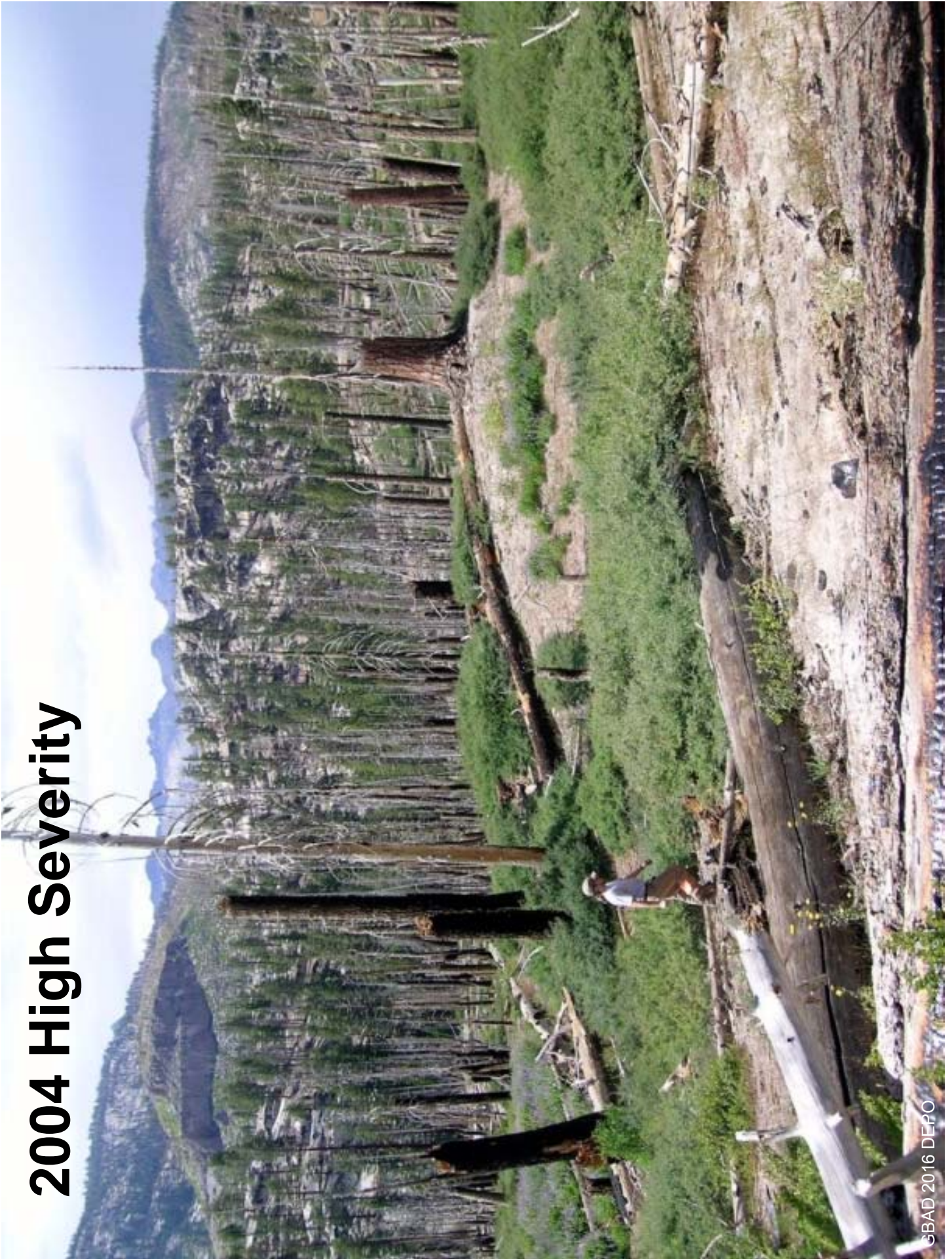


**2013 Low Severity
Restore Fire to Promote
a Resilient Landscape?**



GBAD 2016 DEPO

2004 High Severity

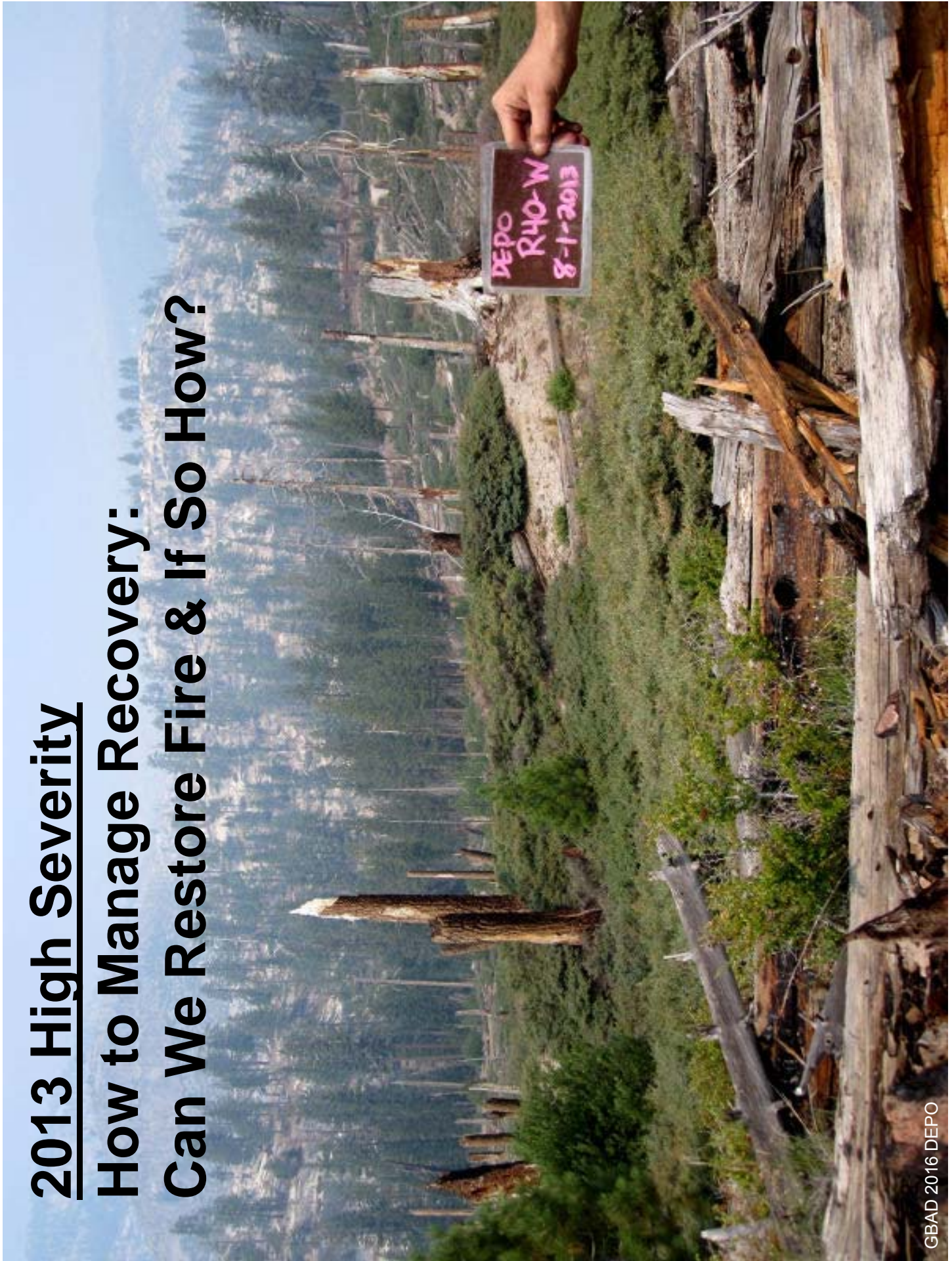


CBAD 2016 DEPO

2013 High Severity

How to Manage Recovery:

Can We Restore Fire & If So How?



GBAD 2016 DEPO

Postfire Seedling Ages – High Severity Sites ≥100m



Diameter vs Age Relationship Postfire Seedlings

Summary

- Continued fuel increases as decay of overstory occurs.
- Postfire tree regeneration:
 - Considerable postfire regeneration (particularly white fir) in areas of low to moderate fire severity
 - but in areas of high severity fire it is sparse (predominantly Jeffrey pine) and largely limited to seed on site prior to the burn.
- Fire History showed that pre-Euroamerican fire frequency was moderate (8 - 33 years between fires).
- Pre-Euroamerican fire type appeared to have been predominantly understory, indicating that the extent of high severity burn in the Rainbow Fire was unprecedented. Small patches of high severity might have occurred in the past but not to the extent of the 1992 Rainbow Fire.
- Portions of the monument unburned by the Rainbow Fire have missed fires due to 100+ years of fire exclusion.
- The 2011 blowdown affected forest structure and fuel loads in low severity or unburned areas of the Rainbow Fire. Overstory was reduced and fuel loads increased.

Management Implications

Results suggest:

- 1) Application of fire to areas of low-to-moderate severity or were unburned would be beneficial for maintaining lower fuel loads and forest conditions that promote a more resilient landscape while also reducing the chances of major future smoke impacts. Frequency of application would depend on forest type.
- 2) But in the large high-severity patches, additional fire in the near future could lead to long-term persistence of shrubs and loss of postfire tree regeneration. Would it be possible to reintroduce low severity prescribed fire into these areas without affecting the limited tree regeneration and eliminating the future tree seed source?

Note: Observations from recent large fires, such as the Rim and Rough, suggest shrub patches are maintained and can expand with subsequent fires, which combined with a changing climate, may affect long-term forest recovery.

- 3) Areas of blowdown will influence future forest structure, fire occurrence and fire effects, although the blowdown event was "natural".

Photo by David J. Leveson



AFE 2006 DEPO

References

- Caprio, A.C. 2006. Fire History of Lodgepole Pine in the Southern Sierra Nevada, California. Extended Abstract. AFE International Fire Ecol. Congress. 5pp.
- Caprio, A.C., M.B. Keifer, and K. Webster. 2006. Long-term Effects of the 1992 Rainbow Fire, Devils Postpile National Monument, California. Extended Abstract. AFE International Fire Ecol. Congress. 6pp.
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- Caprio, A.C. and T. Schmitt. In prep. Fire Effects Monitoring of 1992 Rainbow Fire, Devils Postpile National Monument: Forest Response Twenty Years Post-fire
- Caprio, A.C. and K. Webster. 2006. Fire Effects Monitoring of the 1992 Rainbow Fire: Vegetation Response Ten Years Postfire. NPS Report, April 2006, 37 pp.
- Hilimire, K., J.C.B. Nesmith, A.C. Caprio, and R. Milne. 2013. Attributes of Windthrown Trees in a Sierra Nevada Mixed-Conifer Forest. *Western J. Appl. For.* 28: 85-88.
- Hilimire, K., J. Nesmith, A. Caprio, R. Milne, and L. Mutch. 2012. Winds of Change: Characterizing Windthrown Trees in a Sierra Nevada Mixed Conifer Forest. *Mountain Views* 12 6(2):44-46
- Stephens, S.L. 2001. Fire history differences in adjacent Jeffrey pine and upper montane forests in the eastern Sierra Nevada. *International J. of Wildland Fire* 10:161-167
- Yosemite Vegetation Map. 2003. Unpublished data provided by Yosemite National Park on preliminary mapping of vegetation in Devils Postpile N.M. collected as part of the Yosemite National Park vegetation map (source of fire severity data).

Acknowledgements

MaryBeth Keifer, Georgia Dempsey, and Corky Conover established the postfire FMH plots in 1992 and collected several years of plot reads. Tyler Schmitt organized and assisted with the 20-year plot reads and many individuals on the SEKI fire effects field crews assisted in the data collection over the last two decades. We also thank Deanna Dulens and DEPO employees for assistance while working in DEPO over the years.



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Debra Schweizer, Public Affairs Officer, Inyo National Forest

Subject: Smoke and air quality Summary of the Inyo, Sequoia and Sierra National Forest Plan Revision

Summary:

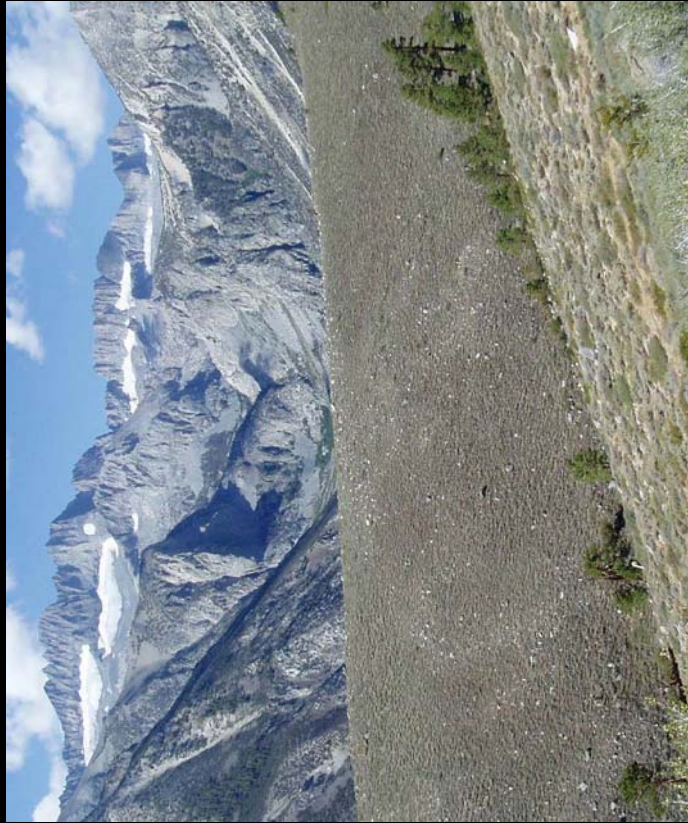
Discussion of the smoke and air quality summary of the Inyo, Sequoia and Sierra National Forest Plan Revision.

Board Action:

None.

Attachment: Slideshow presentation, "Forest Plan Revision Inyo National Forest"

Forest Plan Revision Inyo National Forest



Pacific Southwest Region

June 2016

Forest Plan Revision ~ Draft Environmental Impact Statement (EIS)



- An Environmental Impact Statement (EIS)
 - Explains proposed plan revisions
 - Presents spectrum of management alternatives
 - Analyzes environmental, social and economic effects
- 1 EIS = 3 Records of Decisions and 3 unique forest plans (early adopters in CA =Sierra NF, Sequoia NF, and Inyo NF)
- Natural resource topics for forest plan revisions
 - Fire Management
 - Ecological Integrity
 - Sustainable Recreation and designated areas



Forest Plan Revision ~ Background

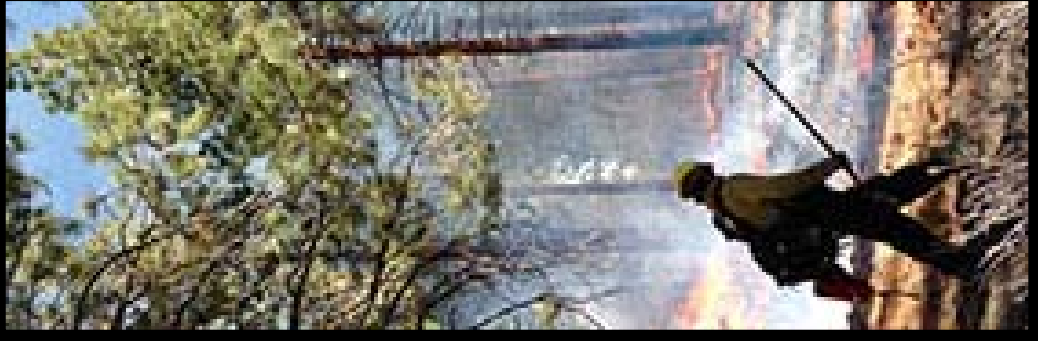


Fire Management– Desired Conditions:

- Fire management activities minimize the risk of loss of life and damage to property or ecosystem function. Firefighter and public safety is the first priority in every fire management activity.
- **Fire management activities reduce fuel buildup, help maintain and protect habitat for a variety of species, reduce smoke from larger fires, provide added protection for communities, and restore fire on the landscape. These actions are also an integral part of achieving sustainable recreation, particularly in maintaining scenic attractiveness, integrity and character.**
- Wildland fires burn with a range of intensity, severity and frequency that allows ecosystems to function in a healthy and sustainable manner. **Wildland fire is a necessary process, integral to the sustainability of fire-adapted ecosystems.**



Forest Plan Revision ~ Background



Fire Management– Desired Conditions:

- Fire management uses an all lands risk-based approach in planning and decision making, responsive to the latest fire and social sciences, and is adaptable to rapidly changing conditions, including climate change. Wildfire management is coordinated with relevant state agencies and adjacent federal agencies. The net gains to the benefit are an important component of the decision-making process.
- The forest contributes to increased awareness and understanding about wildfire risk among community leaders, service providers, homeowners, permittees and tribes who are invested in or adjacent to the forest. This includes an understanding about the need to adapt communities, properties and structures to wildfire, while also recognizing that wildland fire is a needed ecological process.
- Wildfire threat is reduced through management actions in areas where fuel conditions currently pose the highest threat to communities and community assets, such as power lines, communication towers and developed recreation sites.
- Education and enforcement have reduced the likelihood of human ignited wildfire.



Forest Plan Revision ~ Four Draft EIS Alternatives



Alternative A No Action	Alternative B Preferred Alternative	Alternative C	Alternative D
<ul style="list-style-type: none"> Continues direction of current forest plans. 	<ul style="list-style-type: none"> Increase pace and scale of ecological restoration using mechanical treatments, prescribed burning, and managing some wildfires; Recommended wilderness on Inyo NF only 	<ul style="list-style-type: none"> More use of prescribed fire and managing some wildfires; Recommended wilderness on all Inyo, Sequoia and Sierra NFs 	<ul style="list-style-type: none"> Greatest increase in pace and scale of all restoration; No recommended wilderness



Forest Plan Revision ~ What's Different in the Revised Plan?



- Community Wildfire Protection
 - General Wildfire Protection
 - Wildfire Restoration
 - Wildfire Maintenance
- Plan components allow for increase in:
 - Mechanical treatments
 - Prescribed burning
 - Use of wildfires managed to meet resource objectives





Questions?





GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Don Schweizer, US Forest Service Region 5

Subject: Smoke Transport in the Sierra Nevada

Summary:

Discussion of smoke transport in the Sierra Nevada with presentation to follow at the Board meeting.

Board Action:

None.



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
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BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Alan Abbs, Executive Director, California Air Pollution Control
Officer's Association

Subject: Air Curtain Incinerator Updates

Summary

Mr. Alan Abbs, Executive Officer for the California Air Pollution Control Officer's Association, will be giving a presentation on air curtain incinerator updates.

Board Action:

None.

Attachments: 1. Slideshow presentation, "Air Curtain Incinerators"
2. Temporary Air Curtain Incinerators correspondence from U.S. EPA, Region 9 to
California Air Pollution Control Officers Association

The background image shows an outdoor industrial setting. On the left is a large, dark-colored metal structure with a grid-like mesh, identified as an air curtain incinerator. To the right of this structure is a large, green industrial machine with the brand name "BurnBoss" printed on its side. Several people are present: two firefighters in orange protective gear are in the foreground, one looking towards the green machine. A man in a white short-sleeved shirt and dark trousers stands in the middle ground, looking at the green machine. In the background, another person is visible near some equipment. The scene is set against a backdrop of trees and a clear sky.

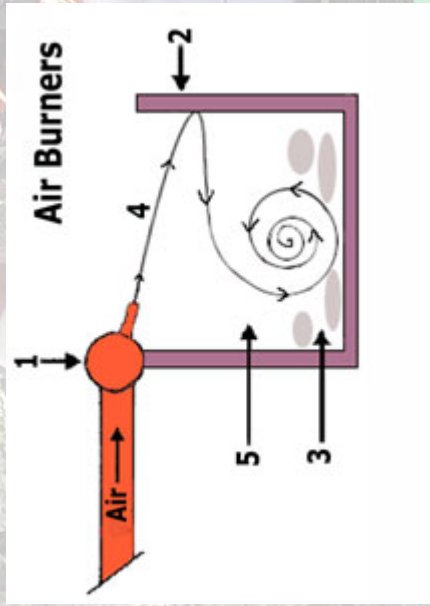
Air Curtain Incinerators

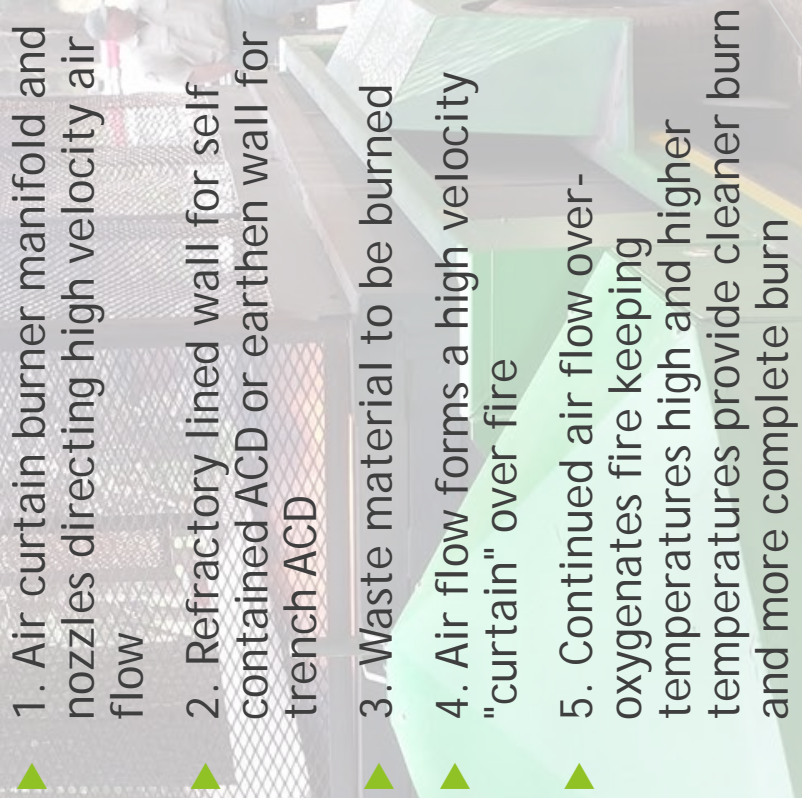
Alan Abbbs

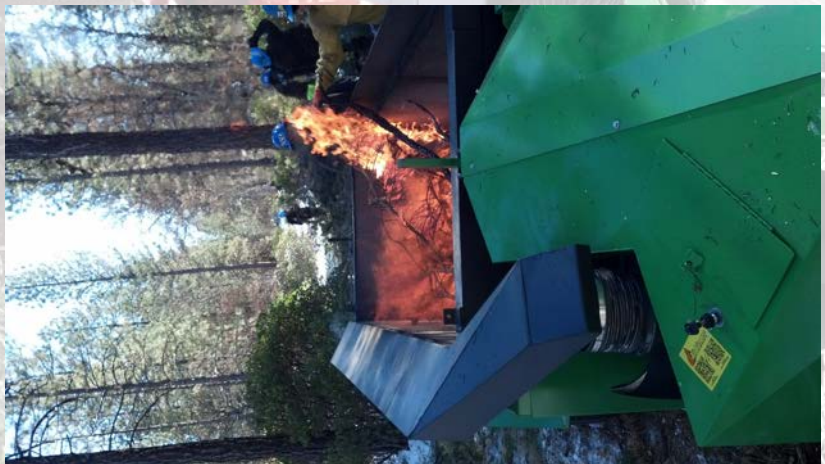
Executive Director

California Air Pollution Control Officers Association

What Are Air Curtain Incinerators?



- 
- 1. Air curtain burner manifold and nozzles directing high velocity air flow
 - 2. Refractory lined wall for self contained ACD or earthen wall for trench ACD
 - 3. Waste material to be burned
 - 4. Air flow forms a high velocity "curtain" over fire
 - 5. Continued air flow over-oxygenates fire keeping temperatures high and higher temperatures provide cleaner burn and more complete burn



Why use ACIs over Open Pile Burning?



- ▲ ACIs control emissions better than open pile burning by using forced air.
- ▲ Feed rate is more controllable.
- ▲ Fire is more contained.
- ▲ Operators can respond faster to changing weather using semi-enclosed device.



Current Status of ACIs in California

- ▲ ACIs have been intermittently permitted in California at the local district level for the last decade
 - ▲ Use has been limited to State Parks, a few private operators, and an occasional USFS ACI.
 - ▲ District permitting has varied from requiring only an agricultural burn permit, to a full authority to construct/permit to operate process, to a notification with no permit.
 - ▲ Depends on status of attainment for ozone and particulate standards, existing district requirements, location of device usage, and district discretion.
 - ▲ During Tree Mortality Emergency, CalFire purchased 10 ACIs. USFS additionally may bring units in from other parts of the country.
 - ▲ Question was raised about permitting, notification, and consistency between districts on allowing operation in order to allow movement through different parts of the state.

Sounds Easy, BUT ...

- ▶ USEPA Region 9 informed CAPCOA and districts that New Source Performance Standards issued in 2006 require Title V Permits for Air Curtain Incinerators.
 - ▶ 40 CFR 60 Subpart EEEE requires operation of ACIs that burn 35 tons or less of clean wood waste to have a Title V permit that includes opacity limits, monitoring and recordkeeping.
 - ▶ Allows for a temporary 8 week exemption during emergencies upon request, and an additional 8 week exemption upon a second timely request, then a permit application is required.
 - ▶ Letter dated April 12, 2016 from USEPA to CAPCOA provided 8 week exemption and contemplated an additional year to require ACIs to submit “application” because CalFire devices had not been previously subject to regulation.
 - ▶ Districts would have time per Title V program to process and issue Title V permit.
 - ▶ 8 week clock (and additional year) theoretically does not start until devices get first used
 - ▶ To date, we are not aware that devices have triggered this clock.

Developing the Permit

Easier said then done

- ▶ If a district issued a district specific permit, a device could not travel to another district and operate without getting a new permit.
- ▶ Title V permits themselves are complicated, require public notification, and require review by EPA staff before issuing.
 - ▶ EPA has suggested a “general permit” which is used by many states to streamline certain Title V permits that may require less rigorous analysis.
 - ▶ A general permit application and permit could be developed for use statewide that would be accepted at every district, if every district could agree on the forms and could incorporate their local conditions into the final permit.
 - ▶ Process would likely still require one time notification to inform public of the existence of the general permit process.
 - ▶ CAPCOA would likely form a group to develop the documents, or it could be developed and hosted by an individual district, such as San Joaquin.

Tree Mortality Task Force Activities

Regulations Workgroup

- ▶ Developed proposed letter for Governor's signature, to EPA Headquarters, to request a long term exemption.
 - ▶ Duration to be 5 years or until end of Emergency.
 - ▶ Cited bureaucratic burden of Title V process on a process that is being used to reduce pollution impacts of open burning.
 - ▶ California Health and Safety Code Section 41812 already allows APCOs to permit "mechanized burners" to process clean wood waste subject to opacity requirements.
 - ▶ Given that district regulations require recordkeeping and monitoring within existing ag burning and prescribed fire programs, Title V requirement does not appear to reduce emissions or impacts to public health.
- ▶ Governor has not yet signed letter.

Questions?

- ▶ Thank you
- ▶ Alan Abbs
- ▶ Executive Director
- ▶ California Air Pollution Control Officers Association
- ▶ 916-441-5700



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

April 12, 2016

Alan Abbs
Executive Director
California Air Pollution Control Officers Association
1107 Ninth Street, Suite 1005
Sacramento, CA 95814

Re: Temporary Air Curtain Incinerators

Dear Mr. Abbs:

Per your request, we are writing this letter regarding the requirements of Section 129 of the Clean Air Act (CAA) and 40 CFR Part 60 Subpart EEEE – Standards of Performance for Other Solid Waste Incineration (OSWI) Units for Which Construction Is Commenced After December 9, 2004, or for Which Modification or Reconstruction Is Commenced on or After June 16, 2006 – with respect to air curtain incinerators, as well as the timing for such operations to obtain a title V permit.

On October 30, 2015, California Governor Edmund G. Brown, Jr. declared a State of Emergency throughout the State of California to direct state agencies to take certain actions to protect the people of California from the dangers posed by dead and dying trees as a result of record drought conditions. Among the measures ordered by the Governor were directives to the California Air Resources Board (CARB) and the California Department of Forestry and Fire Protection (Cal Fire) to work with federal land managers and the United States Environmental Protection Agency (EPA) “to expand the practice of prescribed burns, which reduce fire risk and avoid significant pollution from major wildfires, and increase the number of allowable days on a temporary basis to burn tree waste that has been removed in high hazard areas.”

As an alternative to prescribed burning, Cal Fire, California State Parks, and the United States Forest Service (USFS) have proposed the use of air curtain incinerators for the destruction of dead and dying vegetation. Air curtain incinerators located at institutional facilities, such as a state or national forest or park, that burn less than 35 tons of fuel per day are regulated under 40 CFR Part 60 Subpart EEEE. Subpart EEEE requires air curtain incinerators that burn only wood waste, clean lumber, yard waste, or a mixture of only wood waste, clean lumber, and/or yard waste to meet opacity limits and comply with associated monitoring, reporting and recordkeeping requirements. *See* 40 CFR 60.2970 through 60.2974; *see also*, 40 CFR 60.2977, and 60.2888(b).

Subpart EEEE provides a temporary exclusion, set forth at 40 CFR 60.2887(o), for air curtain incinerators used in disaster recovery operations. In addition, 40 CFR 60.2969(o) specifies the requirements for units that are used to combust debris in an area declared a state of emergency by a local or State government, or the President. Additional information regarding temporary-use air curtain

incinerators may be found in the preamble to EPA's final rulemaking for Subpart EEEE. See 70 FR 74879-74880 (Dec. 16, 2005).


As a result of Governor Brown's October 30, 2015 emergency declaration, air curtain incinerators operating in California qualify for Subpart EEEE's temporary exclusion provided they comply with the requirements in 40 CFR 60.2969. Any notifications or requests required to qualify for this exclusion must be sent to EPA Region 9 Enforcement Division, Air Enforcement Office at AEO_R9@epa.gov. Following the conclusion of a temporary disaster exclusion, the unit must comply with all applicable requirements, including the requirement to submit a complete title V permit application to the permitting authority within 12 months of becoming subject to the requirements under 40 CFR 60.2970 through 60.2974.

Title V permits are generally required for all air curtain incinerators that are subject to Subpart EEEE, even if the unit combusts only wood waste, clean lumber, yard waste, or a mixture of only wood waste, clean lumber, and/or yard waste, or are used by the same owner or operator at multiple temporary locations. See 70 Fed. Reg. 74884-85 (Dec. 16, 2005). Title V permits for air curtain incinerators provide a basis to exclude air curtain incinerators from the other requirements applicable to solid waste incineration units under CAA Section 129. See 70 FR 74885.

Permitting authorities have the option of developing general permits pursuant to 40 CFR 70.6(d) to ease the administrative burden of issuing source-specific title V permits to air curtain incinerators. Pursuant to the requirements in 40 CFR 70.6(e), permitting authorities may issue a single permit to a source owner or operator for multiple temporary locations within any one jurisdiction. My staff are available to work with the California air districts to develop general permits for air curtain incinerators that would meet federal requirements.

If you have any questions concerning this matter, please contact me at 415-972-3974 or Rios.Gerardo@epa.gov, or Larry Maurin of my staff at 415-972-3943 or Maurin.Lawrence@epa.gov.

Sincerely,



Gerardo C. Rios
Chief, Permits Office

cc: Karen Magliano, CARB
Rob Griffith, USFS
Stephen Bakken, California State Parks



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Jon Becknell, Air Quality Specialist II

Subject: Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires

Summary:

The 2016 fire season was projected to be severe in the Sierra Nevada based on continued drought conditions and extensive tree mortality. However, the Great Basin Valleys Air Basin remained only moderately impacted in terms of wildland fires and smoke.

Two naturally ignited wildland fires in 2016, managed and allowed to burn because they were in remote areas, each had only light smoke impacts in their neighboring areas and even less in eastside communities. The Lakes Fire started June 12, 2016 in Yosemite National Park just over 6 miles northeast of Wawona, up a creek drainage and opposite to the predominant southwest winds. Smoke usually only impacted the community when it drifted down-valley in the early mornings. This fire grew slowly to about 1,000 acres. The Mokelumne Fire started August 19, 2016 in the Mokelumne Wilderness of Alpine County amid granite formations, so it burned lightly for a total of 655 acres over several weeks. A third naturally ignited wildland fire, the Slate Fire, started October 12, 2016 in a Sequoia National Forest area with 35-75% tree mortality. This fire did not carry readily, so land managers have decided to add supplemental planned ignitions in October to effectively treat about 1,600 acres. Dispersion of its expected smoke emissions for October 18-20, modeled in a Forest Service online tool called BlueSky Playground, was projected to stay on the west side of the Sierra Nevada and not impact the Great Basin airshed.

When the Clark Fire started on August 4, 2016, it ignited amongst numerous recently burned prescribed fire areas in the Crestview vicinity, the Smoke Management Plans which I have reviewed, approved and authorized daily ignitions for over the past 15 years. The Clark Fire (2,819 acres) and the subsequent Owens River Fire (5,443 acres) that started on September 17, 2016, each burned intensively through untreated forest areas and then abated in a day or so upon reaching areas treated by thinning and prescribed fire. This behavior was in stark contrast to the Soberanes Fire (132,127 acres) that started on July 22, 2016 and soon spread into the Los Padres National Forest, where relatively sparse fuel treatment had been done, burning sometimes thousands of acres per day for up to two months after its start.

Board Action: None.

Attachment: Slideshow presentation, "Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires"

Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires (No Action)
November 10, 2016 – Agenda Item No. 3g – Page 1

JON BECKNELL

AIR QUALITY SPECIALIST II

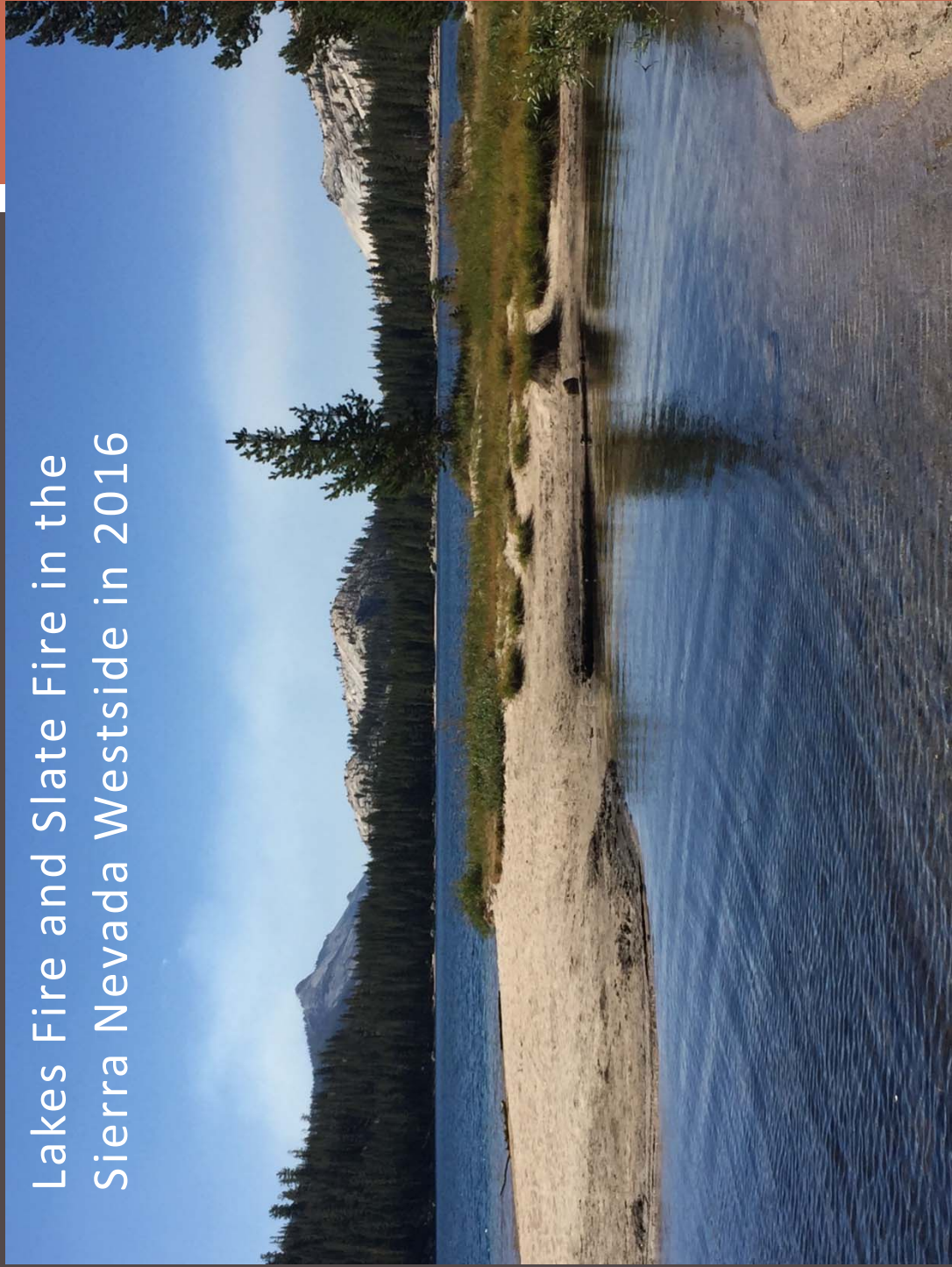
Naturally Ignited Wildland Fires and Case Studies of the Clark and Owens River Fires

Great Basin Unified Air Pollution Control District



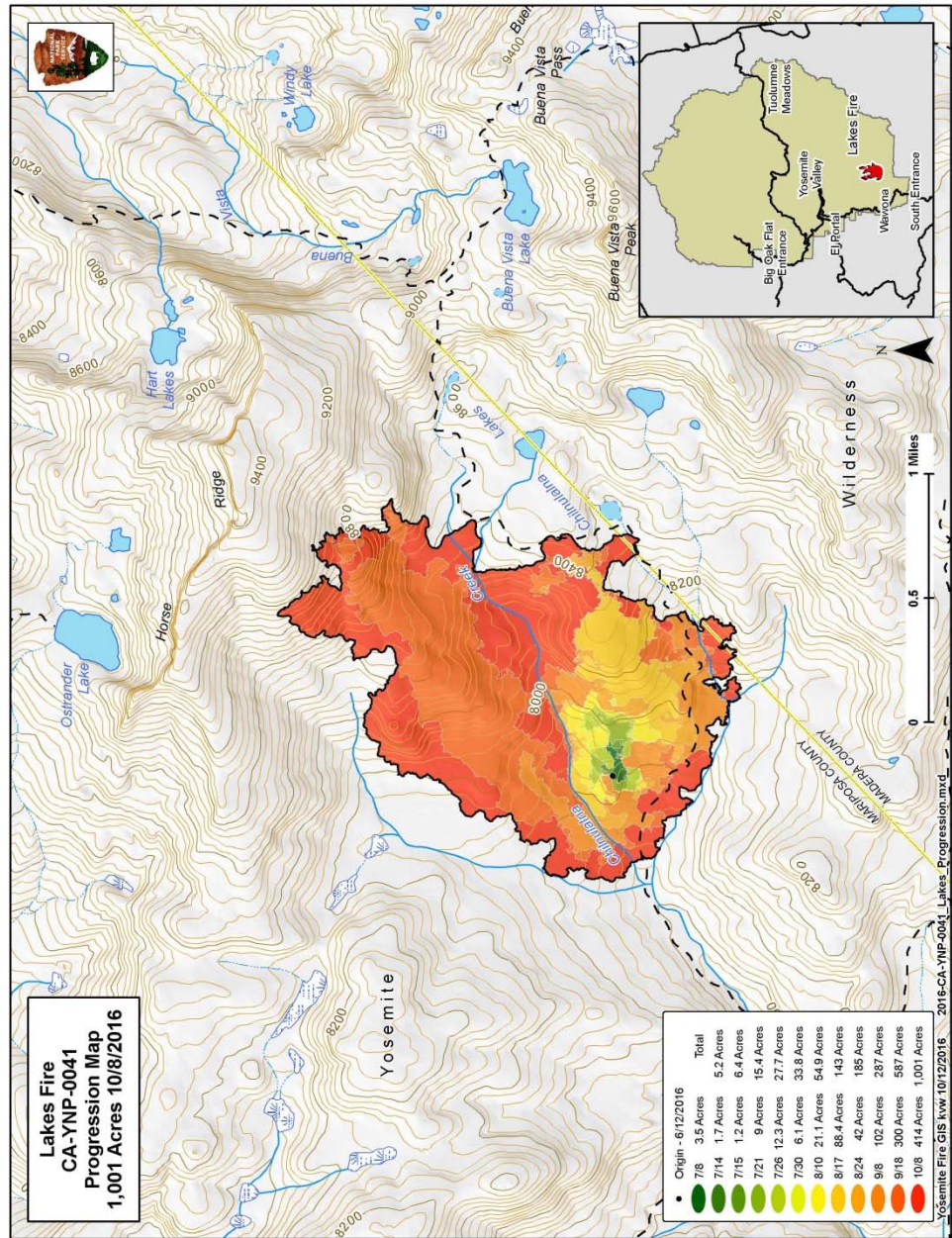
NATURALLY IGNITED FIRES 2016

Lakes Fire and Slate Fire in the
Sierra Nevada Westside in 2016

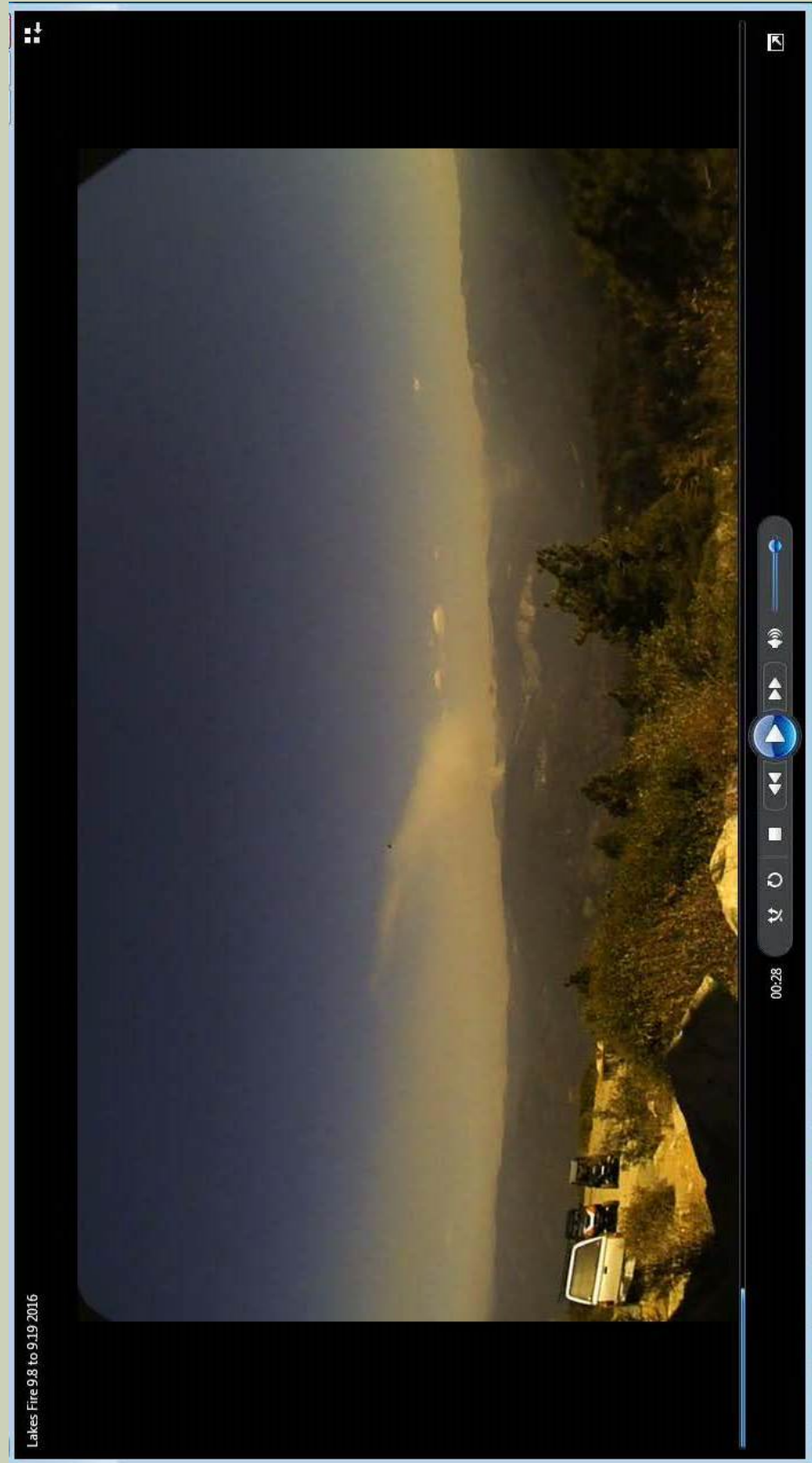


Lakes Fire Smoke from Tenaya Lake 9/12/2016

LAKES FIRE NEAR WAWONA

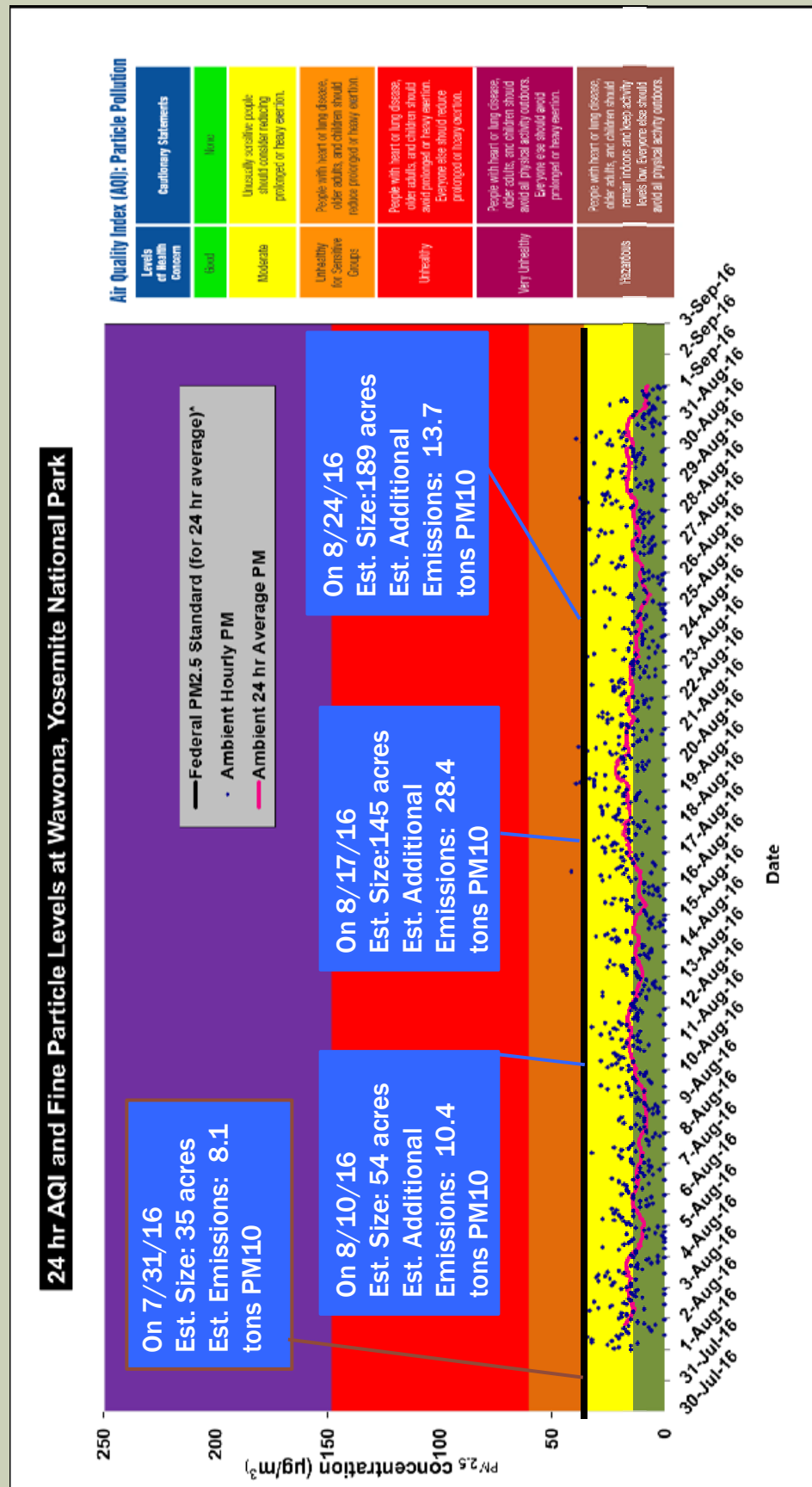


LAKES FIRE TIME-LAPSE VIDEO



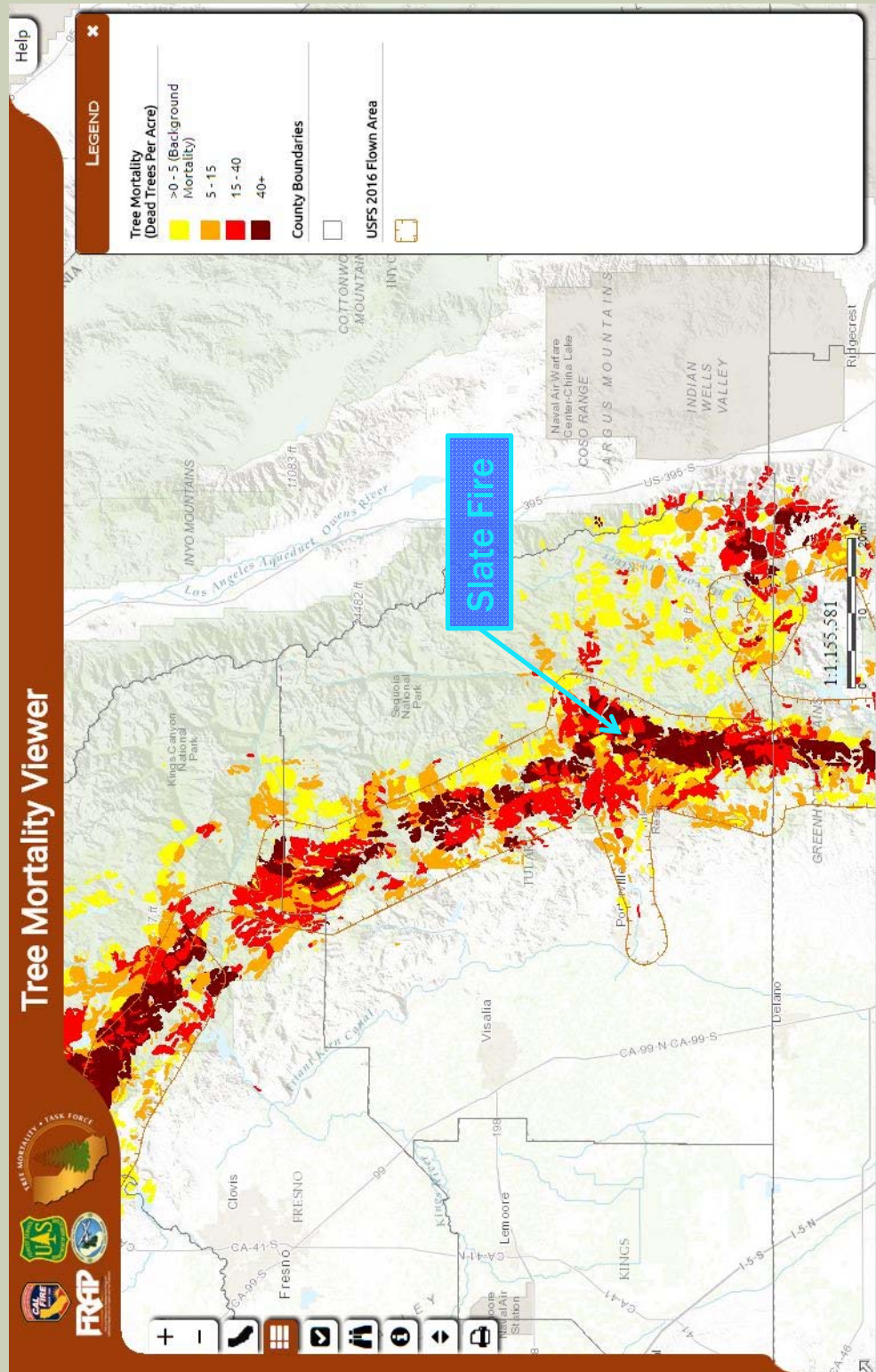
Webcam at Signal Peak

LAKES FIRE SMOKE LEVELS IN WAWONA




Graphics Provided by Jim McNitt, Air Resource Specialist, Yosemite National Park

TREE MORTALITY NEAR SLATE FIRE



SLATE FIRE BLUESKY INPUTS


 playground **2.0 beta**
 Home | My Emissions | My Dispersions | Feedback | Help | Credits | Logged in as GBJonB | Log Out

Home » My Emissions » Slate (Broadcast)

Size and Location | Fuels | Moisture | Consumption | Timing | Emissions | Notes

Use Fuels From
☒ FCCS Fuelbed #17 From Map
☐ FCCS Fuelbeds
☐ LANDFIRE Fuel Loading Models
☐ Custom Fuel Loading

Fuel Loading Results

	1-hr	10-hr	100-hr	1,000-hr	10,000-hr	>10,000-hr	Total Sound Woody	Duff Depth
Canopy	0.9	3.1	3	1	1	1	10.00	4.6
Shrubs								
Grasses								
Litter								
Rotten								
Total Above Ground	24.97	0	0.04	0.02	1.8	26.83		
Total Fuel Loading	92.58							

tons/acre
 tons/acre
 tons/acre
 tons/acre
 tons/acre
 tons/acre
 tons/acre
 tons/acre
 inches

Discard Changes | Apply

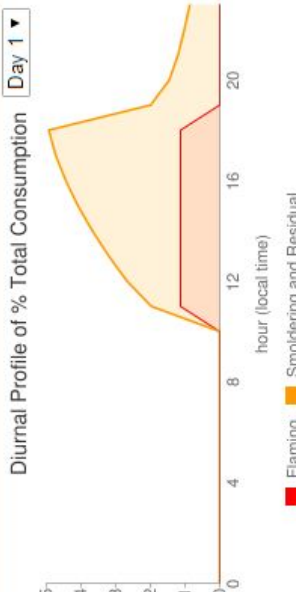
View Totals

Fuels and Emissions per Acre

Fuel	Consumed	GHGs	PM2.5	PM10
Fuel	100	100	100	100
Consumed	60	60	60	60
GHGs	40	40	40	40
PM2.5	20	20	20	20
PM10	10	10	10	10

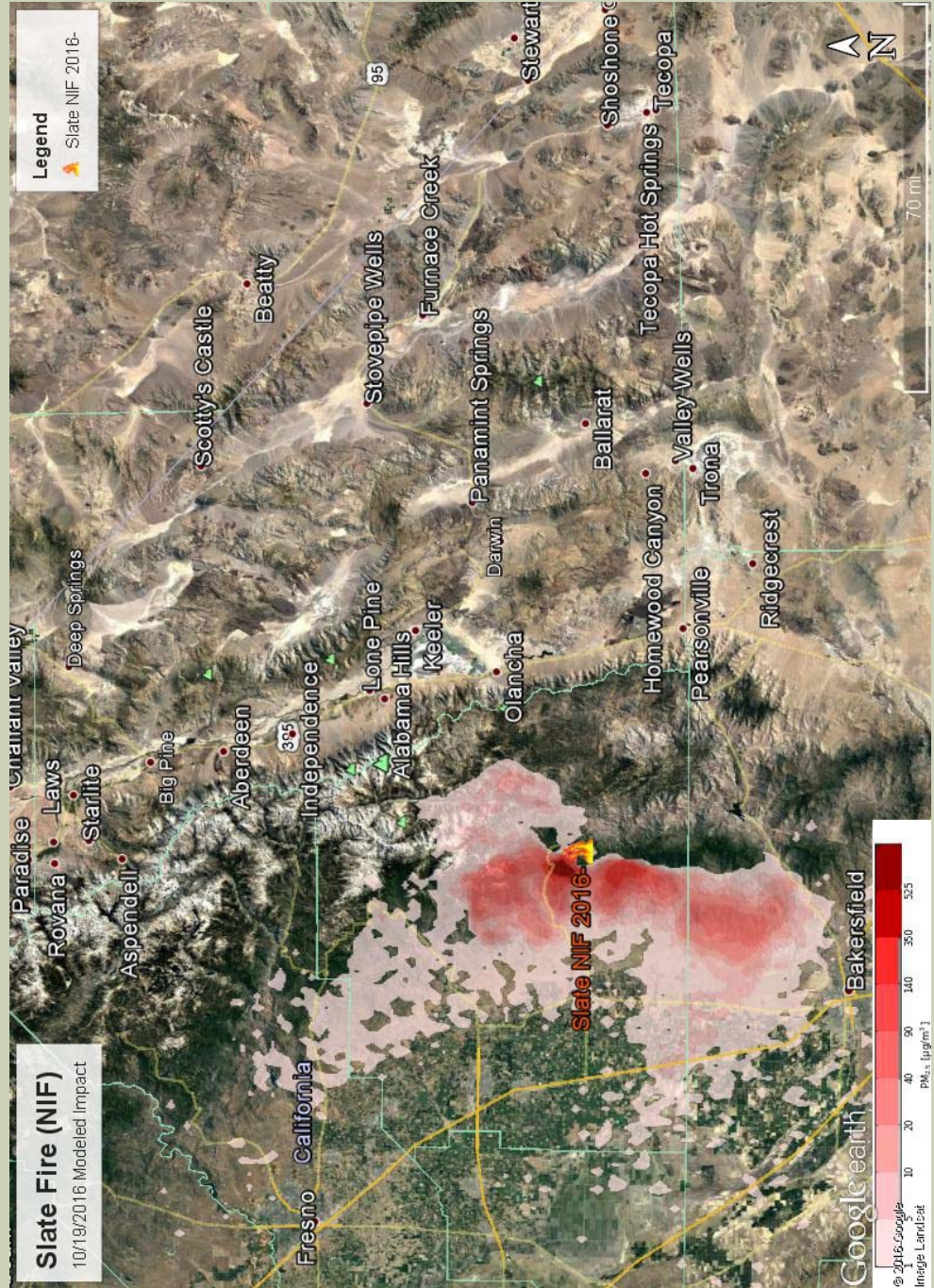
tons/acre
 tons/acre
 tons/acre
 tons/acre
 tons/acre

Diurnal Profile of % Total Consumption Day 1



percent of total consumption
 hour (local time)
 Flaming
 Smoldering and Residual

SLATE FIRE BLUESKY OUTPUT



CLARK AND OWENS RIVER

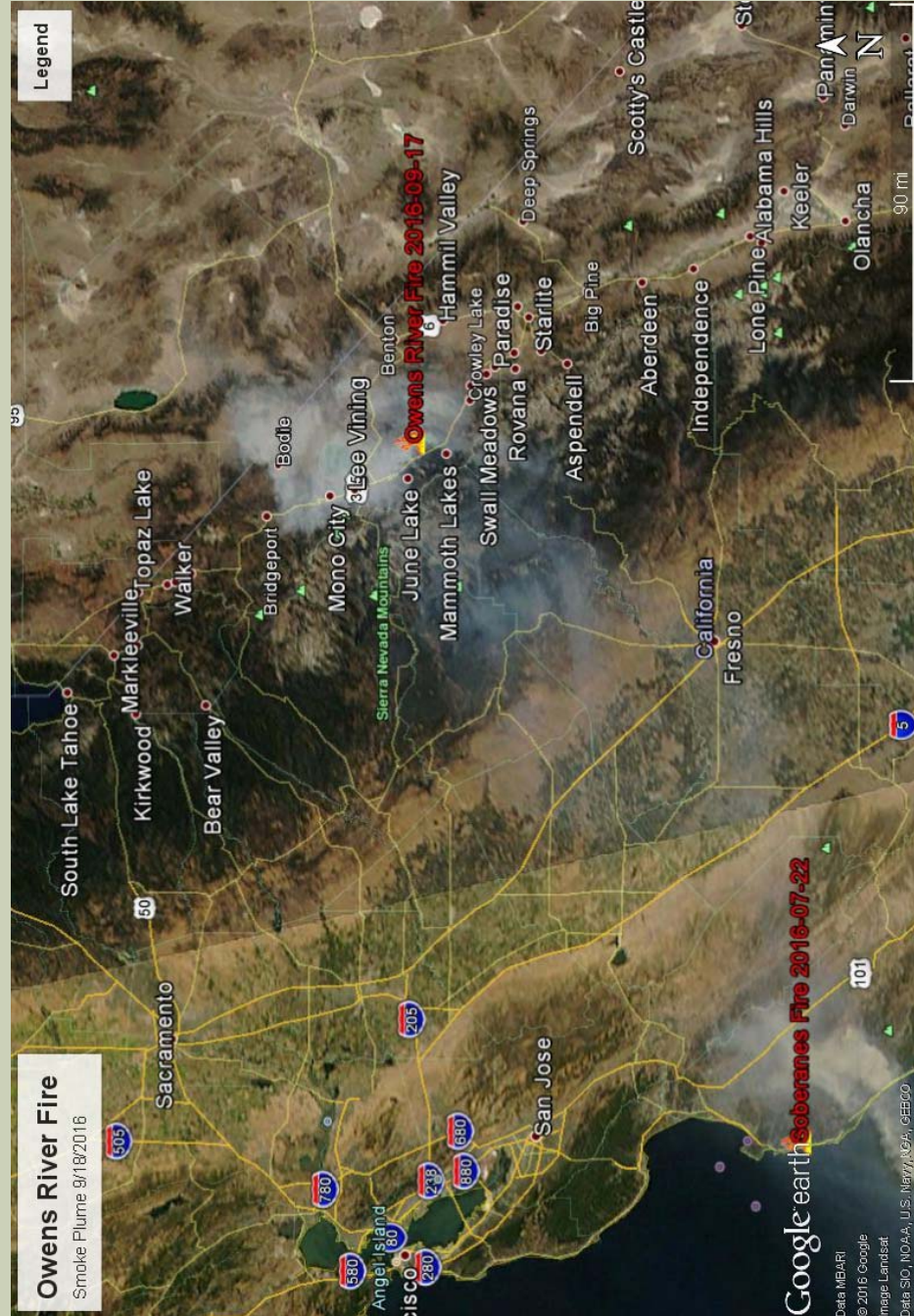
FIRES

Examples of Decreased Wildfire
Behavior and Emissions
Resulting from Past
Fuel Treatments

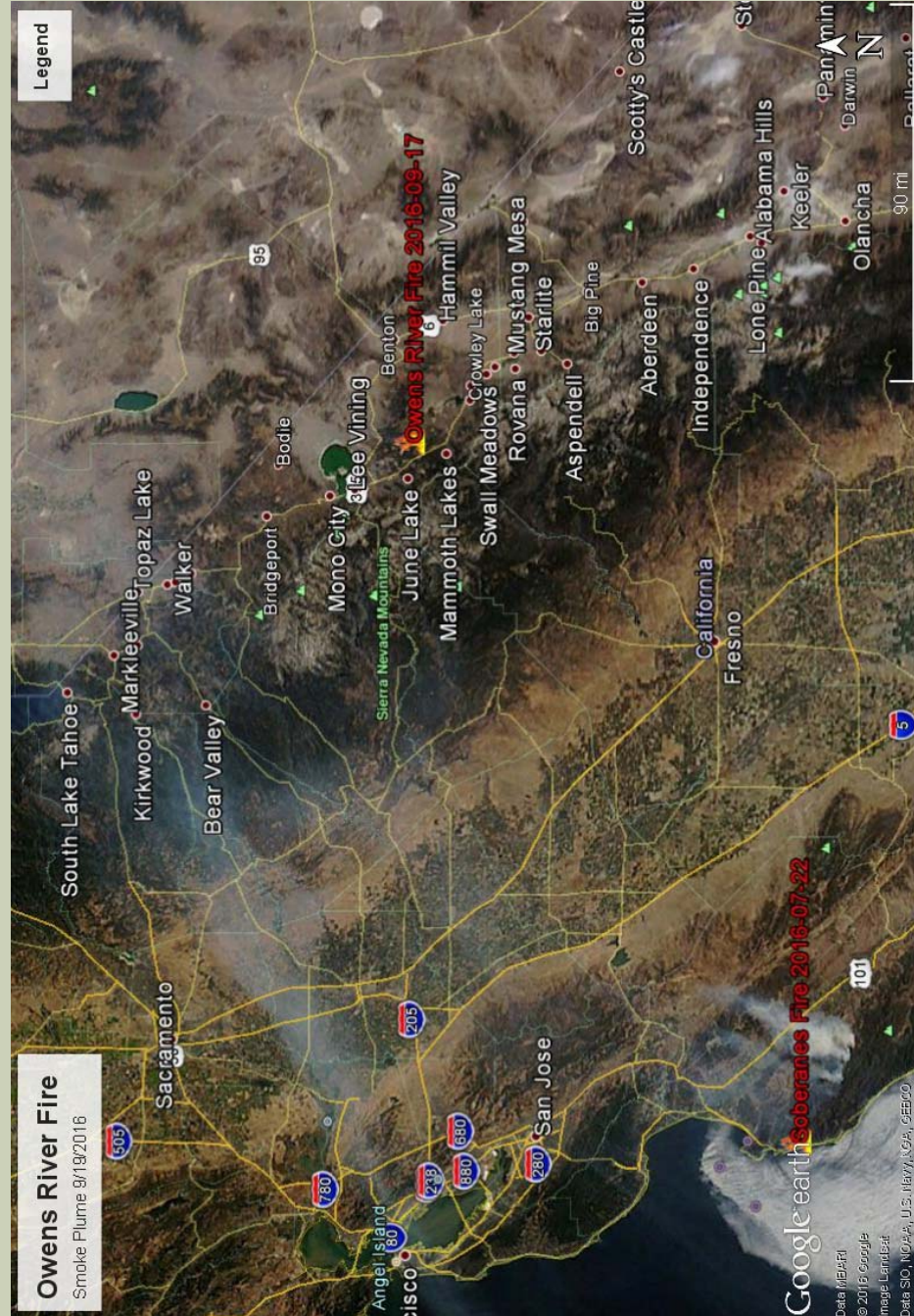


Owens River Fire Smoke from Hwy 168 on Saturday, 9/17/2016

SMOKE IMPACTS OF OWENS RIVER FIRE



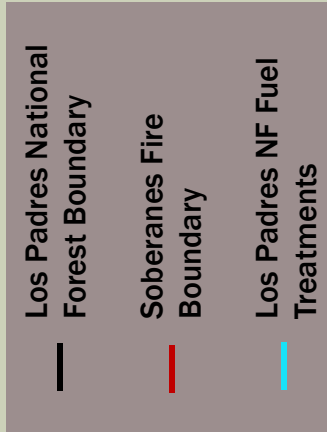
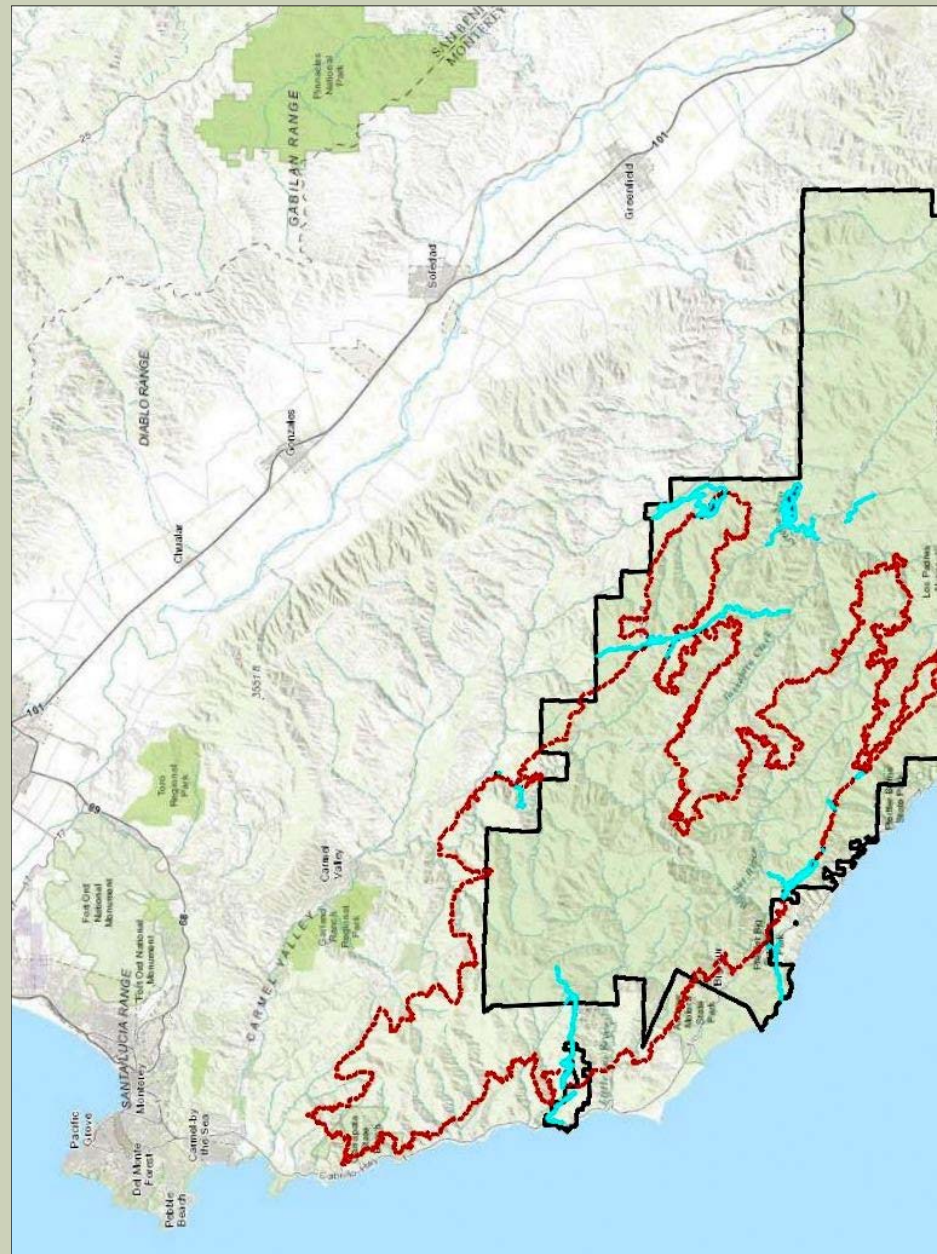
OWENS RIVER FIRE FIRE DISPERSED SMOKE



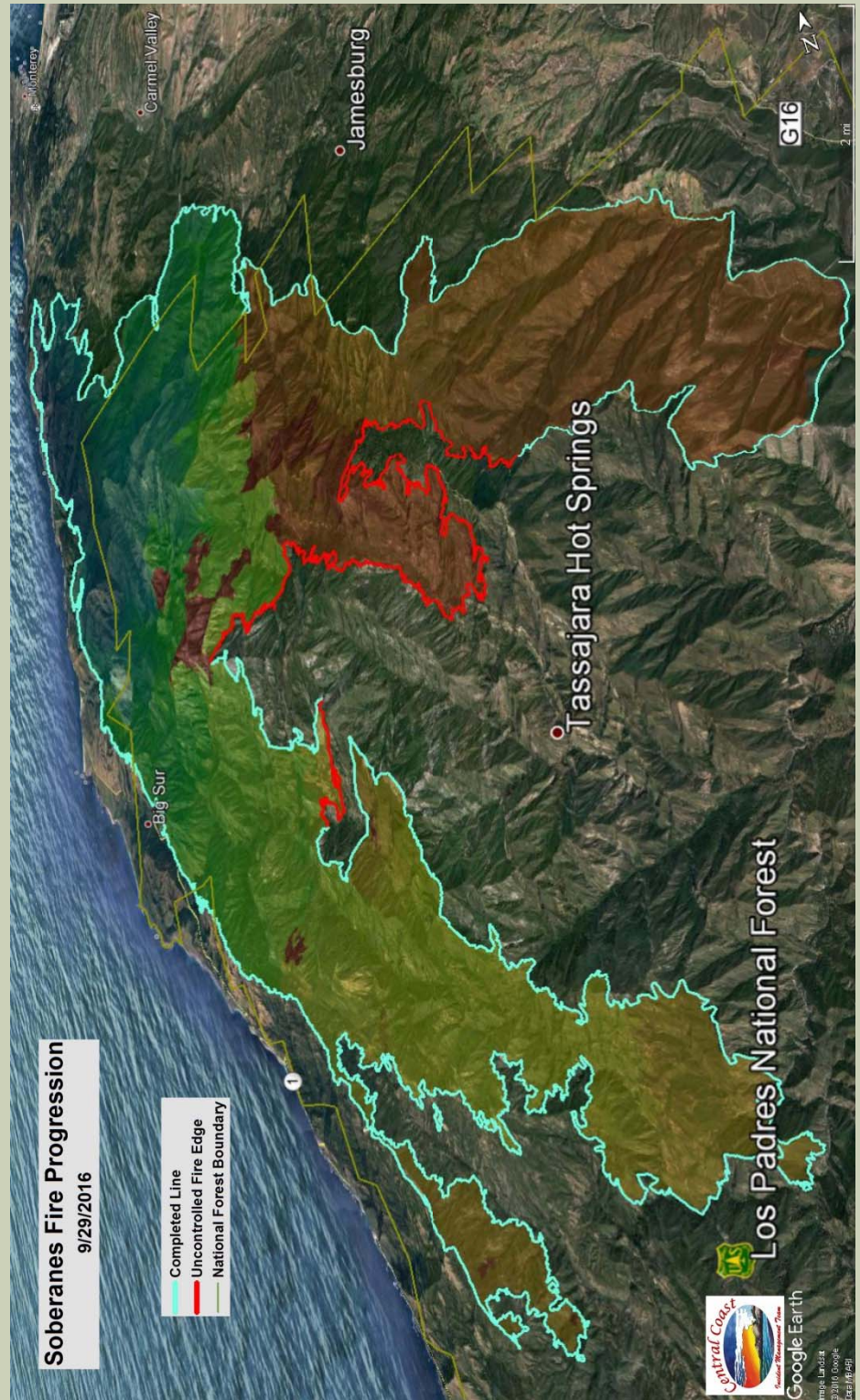
SOBERANES FIRE GROWTH

Date	Total Acres	Acres Growth	Date	Total Acres	Acres Growth	Date	Total Acres	Acres Growth
7/22/2016	774	774	8/14/2016	1,371	1,371	9/6/2016	101,490	510
7/23/2016	6,642	5,868	8/15/2016	2,674	1,303	9/7/2016	102,499	1,009
7/24/2016	10,193	3,551	8/16/2016	4,122	1,449	9/8/2016	103,242	743
7/25/2016	14,860	4,668	8/17/2016	4,790	668	9/9/2016	103,847	605
7/26/2016	19,243	4,383	8/18/2016	7,343	2,552	9/10/2016	105,642	1,795
7/27/2016	22,067	2,824	8/19/2016	9,738	2,396	9/11/2016	105,705	63
7/28/2016	27,207	5,140	8/20/2016	12,172	2,434	9/12/2016	107,050	1,323
7/29/2016	31,211	4,004	8/21/2016	13,553	1,381	9/13/2016	107,375	325
7/30/2016	33,393	2,182	8/22/2016	14,635	1,082	9/14/2016	107,479	104
7/31/2016	37,796	4,402	8/23/2016	15,657	1,022	9/15/2016	108,031	552
8/1/2016	40,490	2,695	8/24/2016	16,994	1,338	9/16/2016	109,603	1,572
8/2/2016	45,140	4,650	8/25/2016	18,399	1,405	9/17/2016	113,259	3,656
8/3/2016	45,621	481	8/26/2016	19,444	1,044	9/18/2016	117,656	4,397
8/4/2016	50,777	5,156	8/27/2016	19,928	484	9/19/2016	121,050	3,394
8/5/2016	53,421	2,644	8/28/2016	20,374	445	9/20/2016	123,241	2,191
8/6/2016	53,474	53	8/29/2016	21,370	997	9/21/2016	125,230	1,989
8/7/2016	57,577	4,103	8/30/2016	21,837	467	9/22/2016	126,323	1,093
8/8/2016	60,179	2,601	8/31/2016	22,308	471	9/23/2016	126,593	270
8/9/2016	67,049	6,870	9/1/2016	22,875	567	9/24/2016	126,658	65
8/10/2016	68,681	1,632	9/2/2016	23,855	980	9/25/2016	127,428	770
8/11/2016	69,345	664	9/3/2016	26,559	2,704	9/26/2016	127,617	189
8/12/2016	70,562	1,217	9/4/2016	100,428	2,008	9/27/2016	127,743	126
8/13/2016	71,861	1,299	9/5/2016	100,979	551	9/29/2016	132,050	4,307

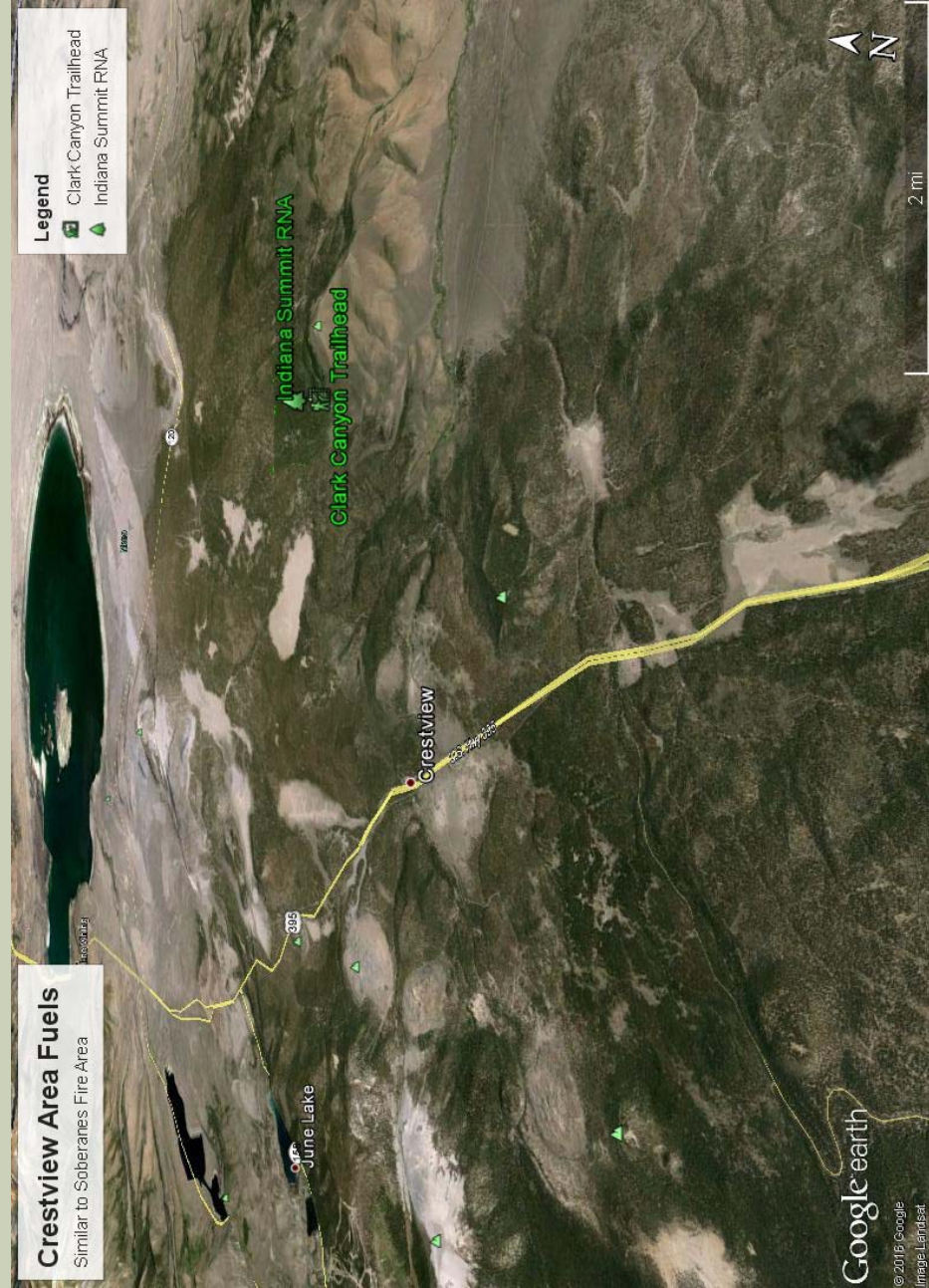
LOS PADRES NF FUEL TREATMENTS IN SOBERANES FIRE AREA



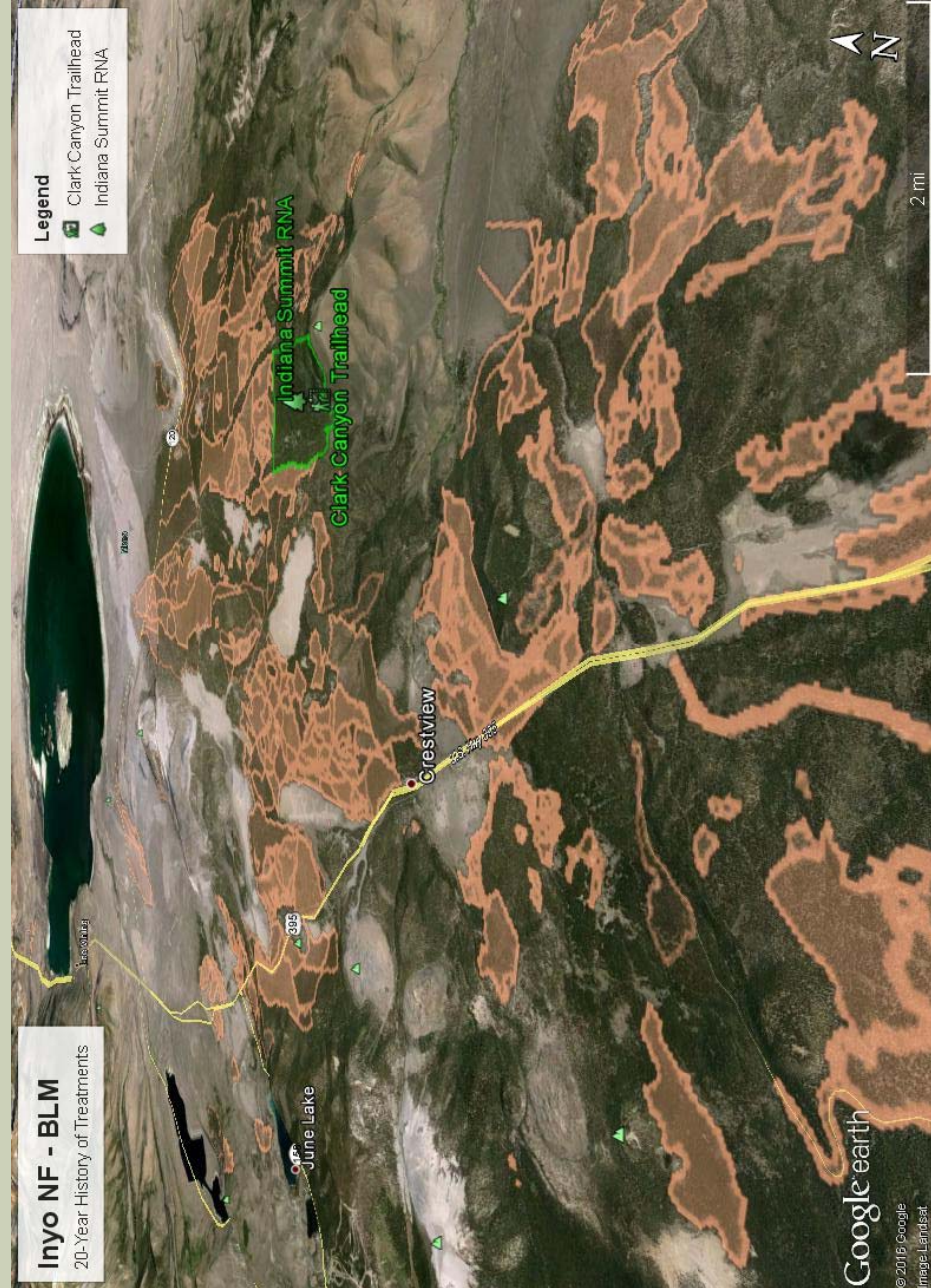
SOBERANES FIRE PROGRESSION



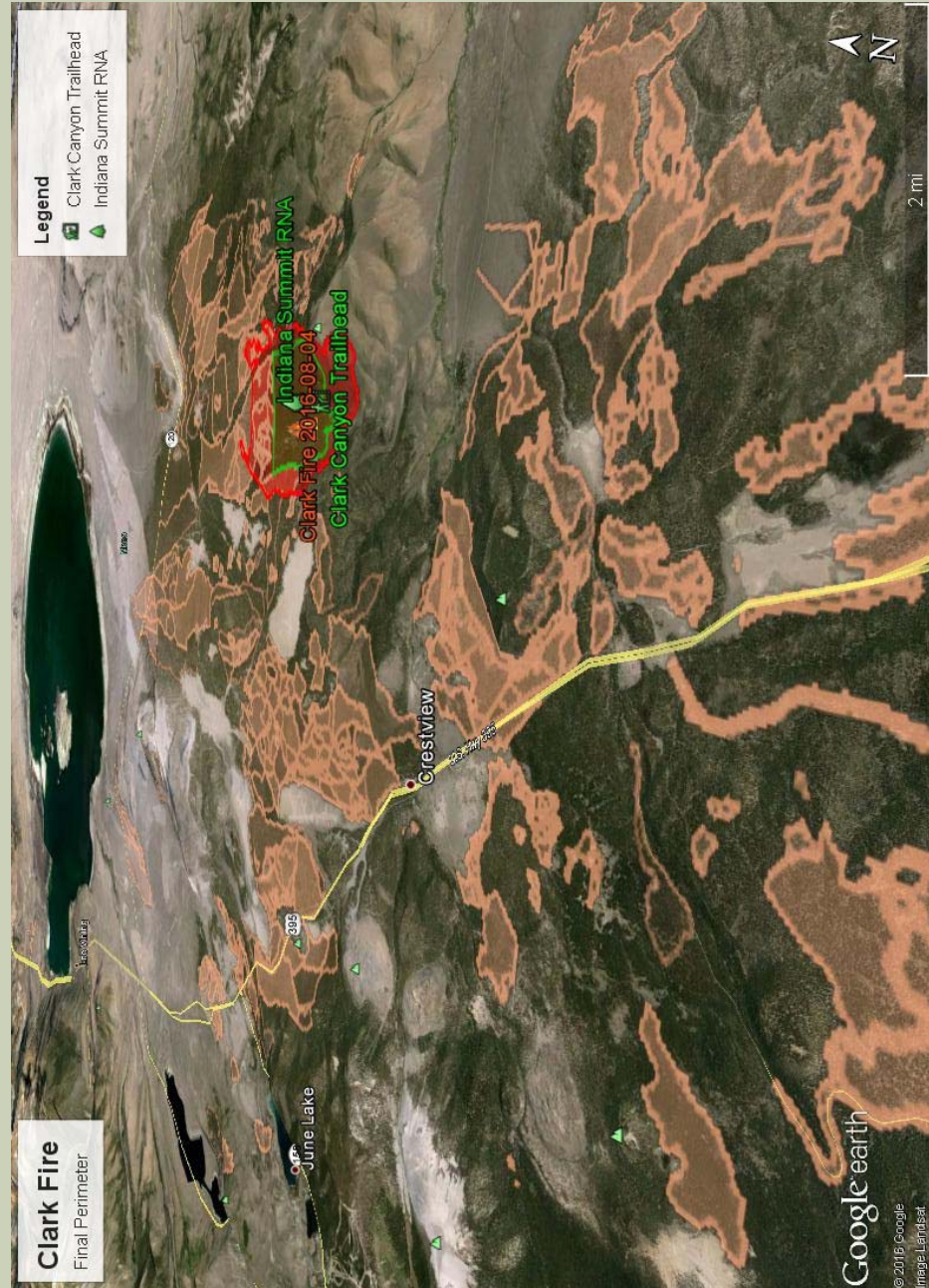
CRESTVIEW AREA



CRESTVIEW AREA FUEL TREATMENTS



CLARK FIRE



CLARK & OWENS RIVER FIRES





GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board
From: Ann Piersall, Air Monitoring Technician II
Subject: Emergency Air Quality Monitoring Program

Summary:

During the summer of 2015, Great Basin Unified Air Pollution Control District initiated an Emergency Air Quality Monitoring program. The program was created to provide real-time air quality information to local communities during air quality emergencies by installing portable monitors during emergencies in areas not covered by the District's permanent monitoring stations. The program consists of two portable particulate matter (PM) monitors, E-BAMs from Met One Instruments, and satellite telemetry units. The units are compact and durable and may be rapidly deployed to areas not covered by the District's permanent air monitoring network or to areas with known sensitive receptors such as schools, hospitals or emergency shelters. The air quality monitors collect continuous real-time data that may be used to issue public health advisories.

The program was created in response to increasing frequency of wildfires affecting communities that do not have permanent monitoring stations. In addition to wildfire smoke, the monitors may also be for other events that produce particulate matters, such as dust storms. The monitors can be configured to measure PM 2.5 or PM 10.

Since the program's inception, monitors have been deployed to 8 locations for 6 wildfires including:

- Washington Fire: June 2015, monitors deployed by Topaz and Markleville with ARB
- Walker Fire: August 2015, monitor deployed in Lee Vining
- Rough Fire: August 2015, monitor deployed Aspendell
- Marina Fire: June 2016, monitor deployed in Lee Vining
- Clark Fire: August 2016, monitor deployed in Lee Vining
- Owens River Fire- September 2016, monitors deployed in Lee Vining and Crowley Lake

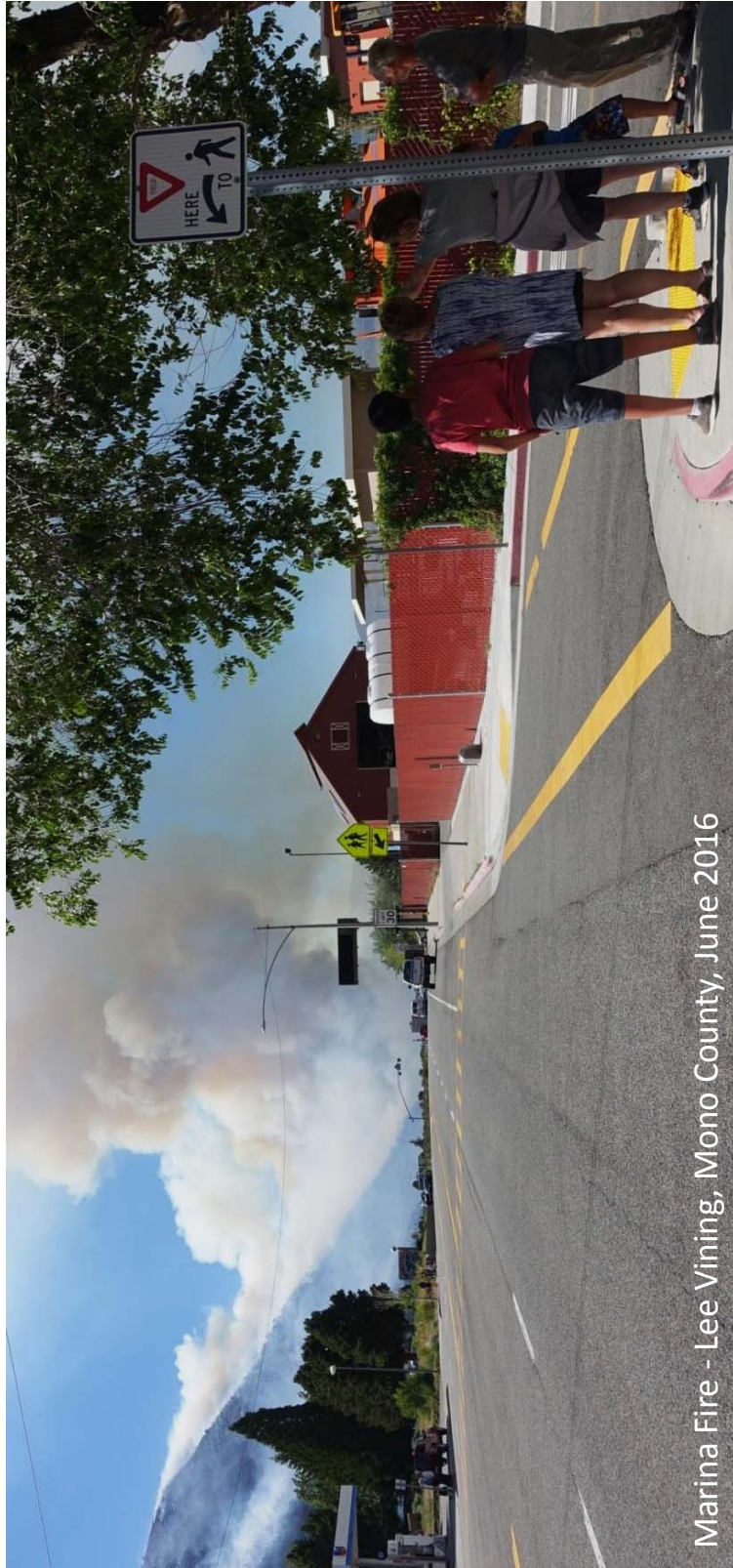
Information from the portable monitors are used to issue public health advisories, to post information on real-time conditions to the District's website and are also disseminated through other local and regional agencies and sources of air quality information including AirNow, the California Smoke Blog, the BlueSky smoke model, USFS AirFire Research Team and other agencies websites and social media outlets.

Board Action:

None.

Attachment:

Slideshow presentation, "Emergency Air quality Monitoring Program"



Emergency Air Quality Monitoring Program

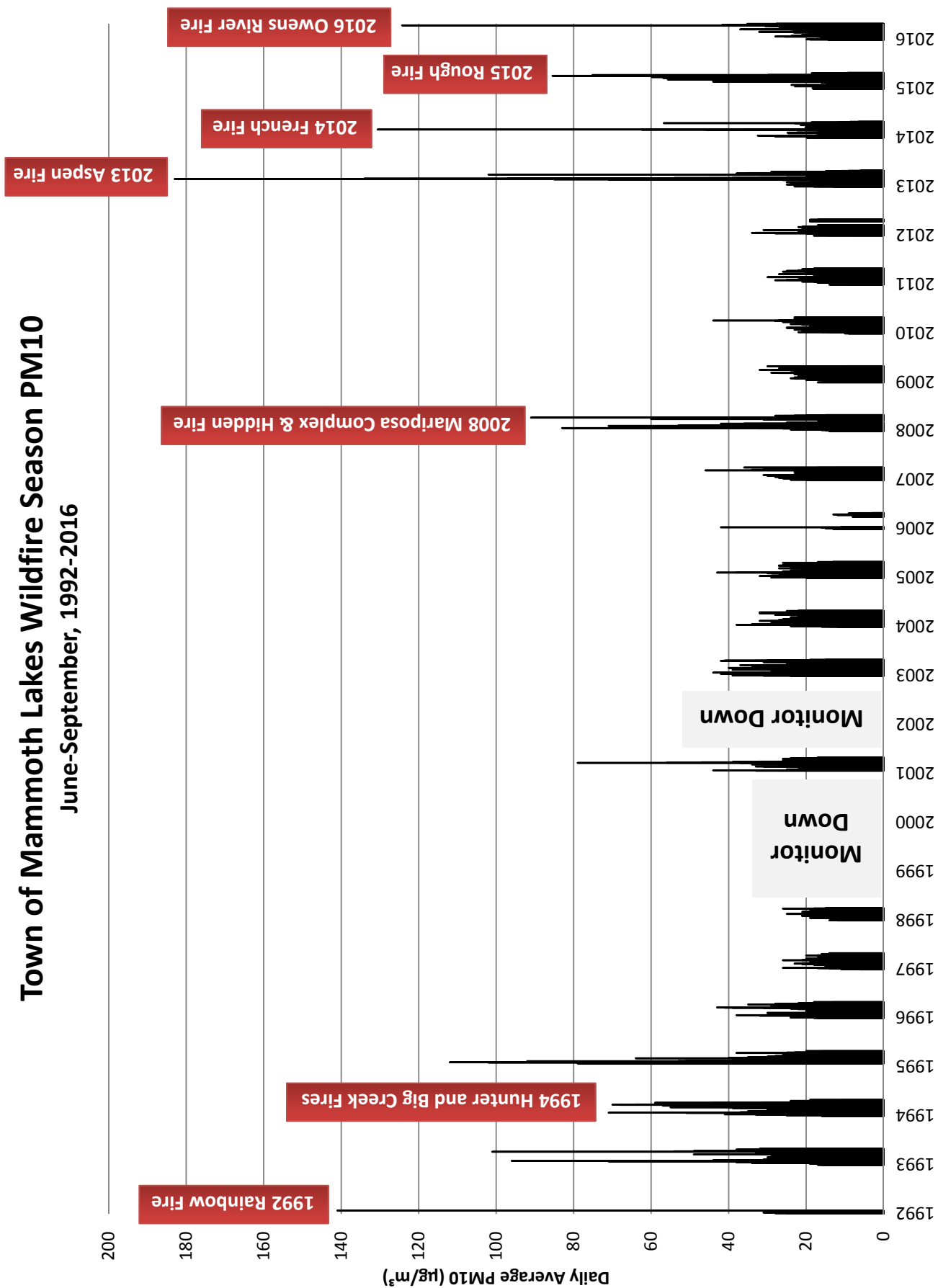
Great Basin Unified Air Pollution Control District

Ann Piersall - Air Monitoring Technician



Town of Mammoth Lakes Wildfire Season PM10

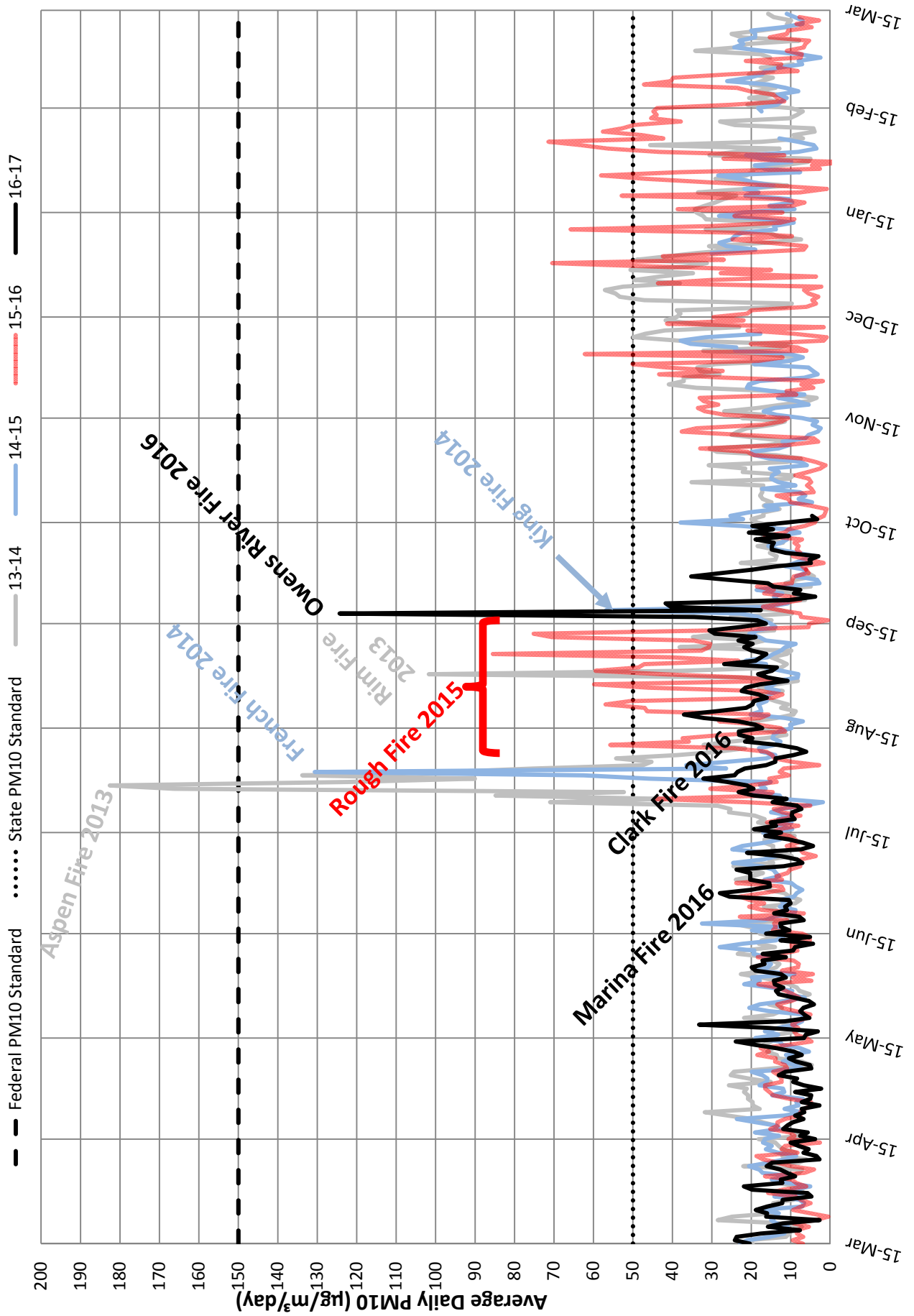
June-September, 1992-2016





Town of Mammoth Lakes – Average Daily PM10

March 16, 2016 - Oct 17, 2016, compared with the previous three years



Bishop, CA Rough Fire Impacts August 29th, 2015

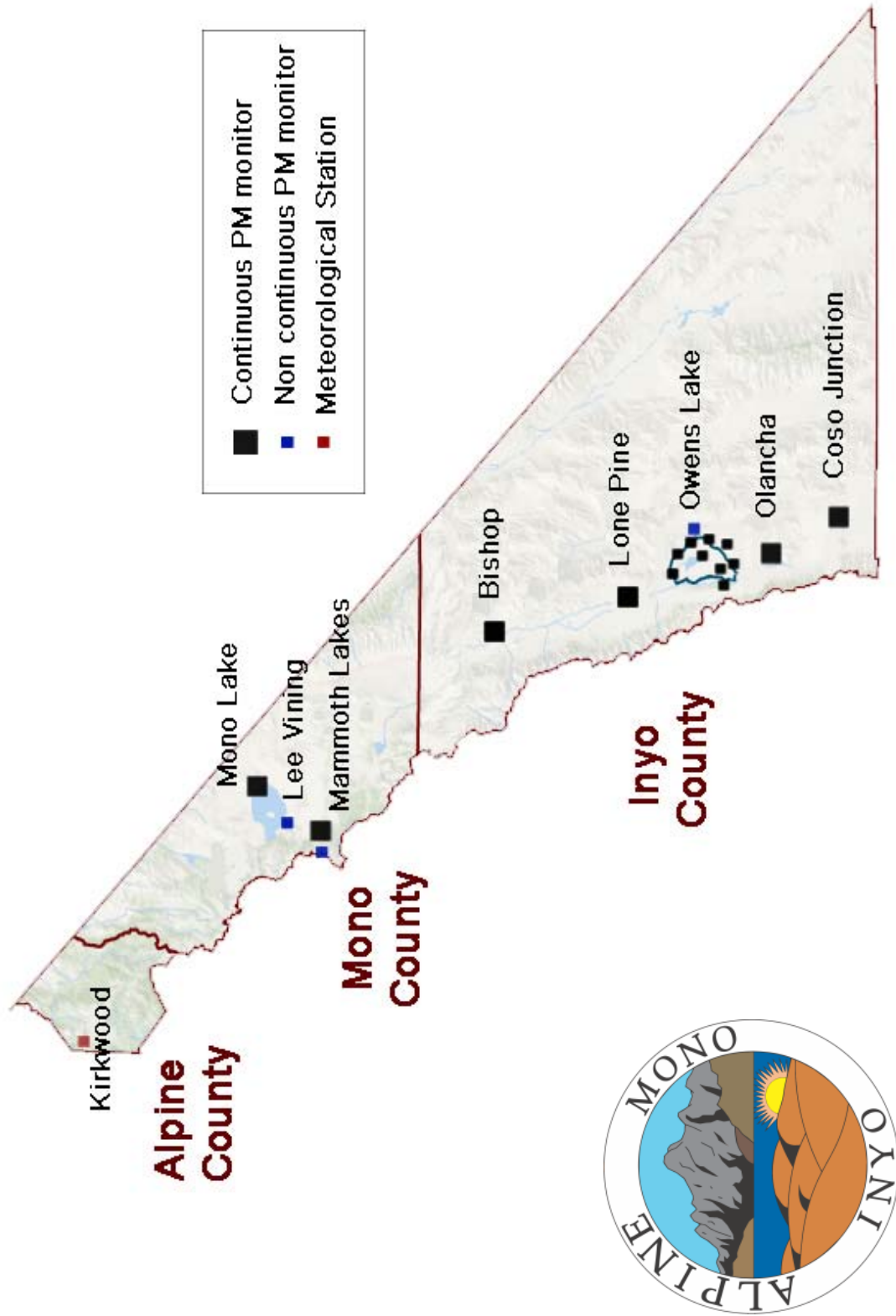


Laws South
Sat Aug 29, 2015
Elev: 5,115 ft

Laws South
Aug 29, 2015 0:14:59 AM

Daily Average PM10 107 $\mu\text{g}/\text{m}^3$
Daily Average PM2.5 97 $\mu\text{g}/\text{m}^3$

GBUAPCD Permanent Air Monitoring Network



Washington Fire, Alpine County, 2015



Cedar Fire, Impacts to Inyo County, 2016



Marina Fire, Mono County, 2016



MISSION

Provide real-time air quality information to local communities during air quality emergencies to protect public health



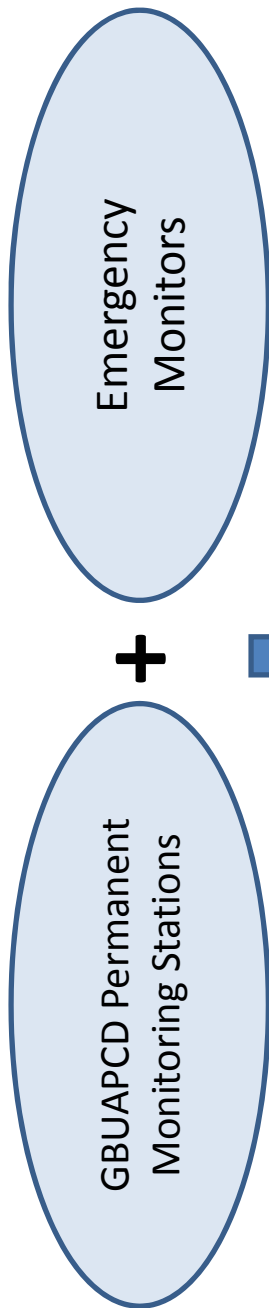
Owens River Fire, Mono County, 2016



Rough Fire, Impacts to Inyo & Mono Counties, 2015



Walker Fire, Mono County, 2015



Public Health Advisories
(Online, email and text alerts)

Website Information

Smoke Models, Regional Information

Stage 2 Health Advisory

**Affected Communities: Mammoth Lakes
Smoke Source: Owens River Fire**

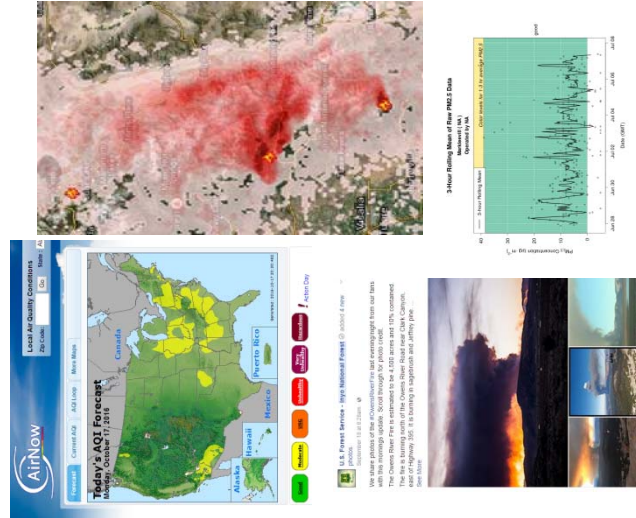
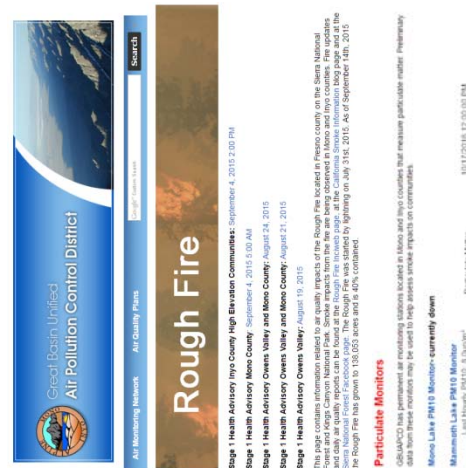
Based on air pollution levels between 1:00 AM and 9:00 AM PDT on September 18, 2016 a Stage 2 Air Pollution Health Advisory has been issued for Mammoth Lakes. Smoke is being seen throughout Mono and Inyo Counties. Other communities may be impacted throughout the day.

Due to elevated particulate pollution levels, everyone is advised to refrain from strenuous outdoor activities in the impacted areas.

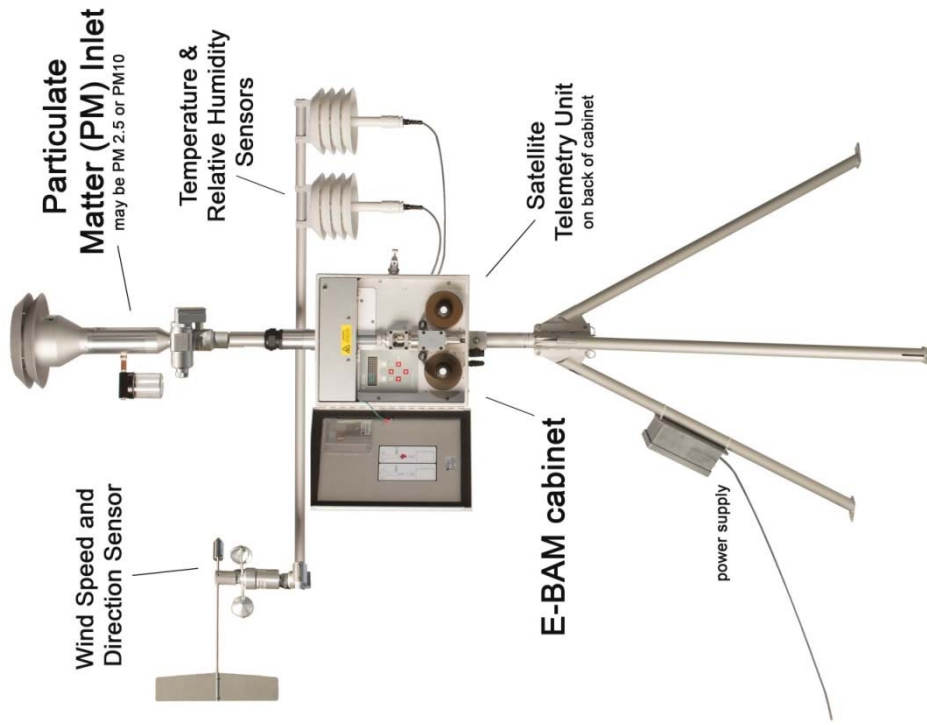
Recommendations for Outdoor Physical Activity during Smoky Conditions

This guide is intended to help you make decisions on outdoor activities when it's smoky outside.

Length of Outdoor Activity	Good for Groups (1-10)	Moderate for Groups (1-10)	Unhealthy for Groups (1-10)	Very Unhealthy for Groups (1-10)	Severe for Groups (1-10)
30 Minutes	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should avoid outdoor physical activity.
1 Hour	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should avoid outdoor physical activity.
2 Hours or More	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should monitor for symptoms and reduce physical activity.	Individuals should avoid outdoor physical activity.



Emergency Monitors



- Portable
- Small footprint
- 1 hour set-up
- Simple power requirements
- Possible solar operation

E-BAM

Met One Instruments

BAM= Beta Attenuation Monitor

GBUAPCD DEPLOYMENTS

INCIDENT	DATE	LOCATION
Washington Fire	June 2015	Topaz Markleville
Walker Fire	August 2015	Lee Vining
Rough Fire	August 2015	Aspendell
Marina Fire	June 2016	Lee Vining
Clark Fire	August 2016	Lee Vining
Owens River Fire	September 2016	Crowley Lake Lee Vining



Crowley Lake
Owens River Fire, Sept 2016



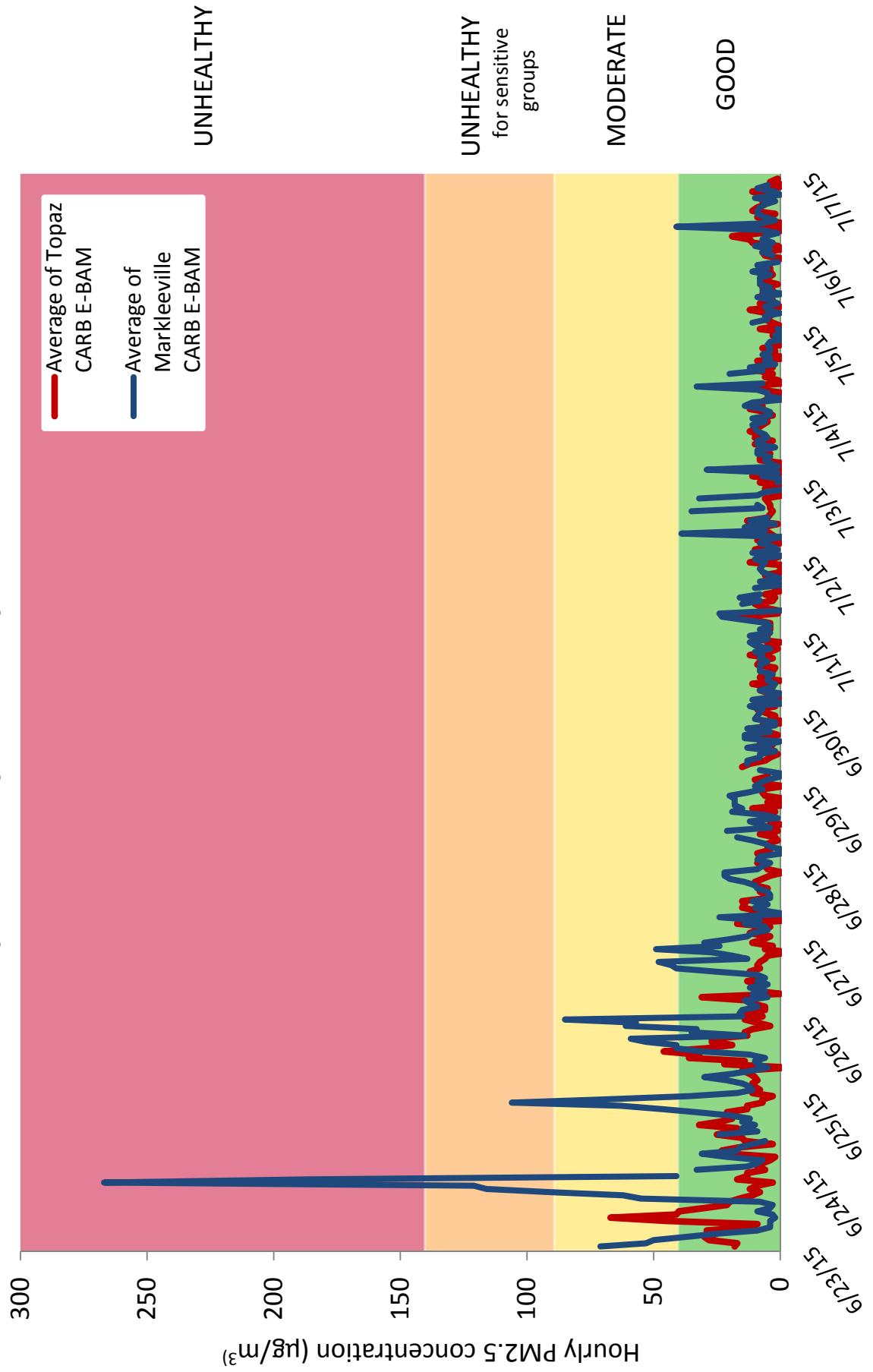
Lee Vining
Walker Fire, Aug 2015



Aspendell
Rough Fire, Aug 2015

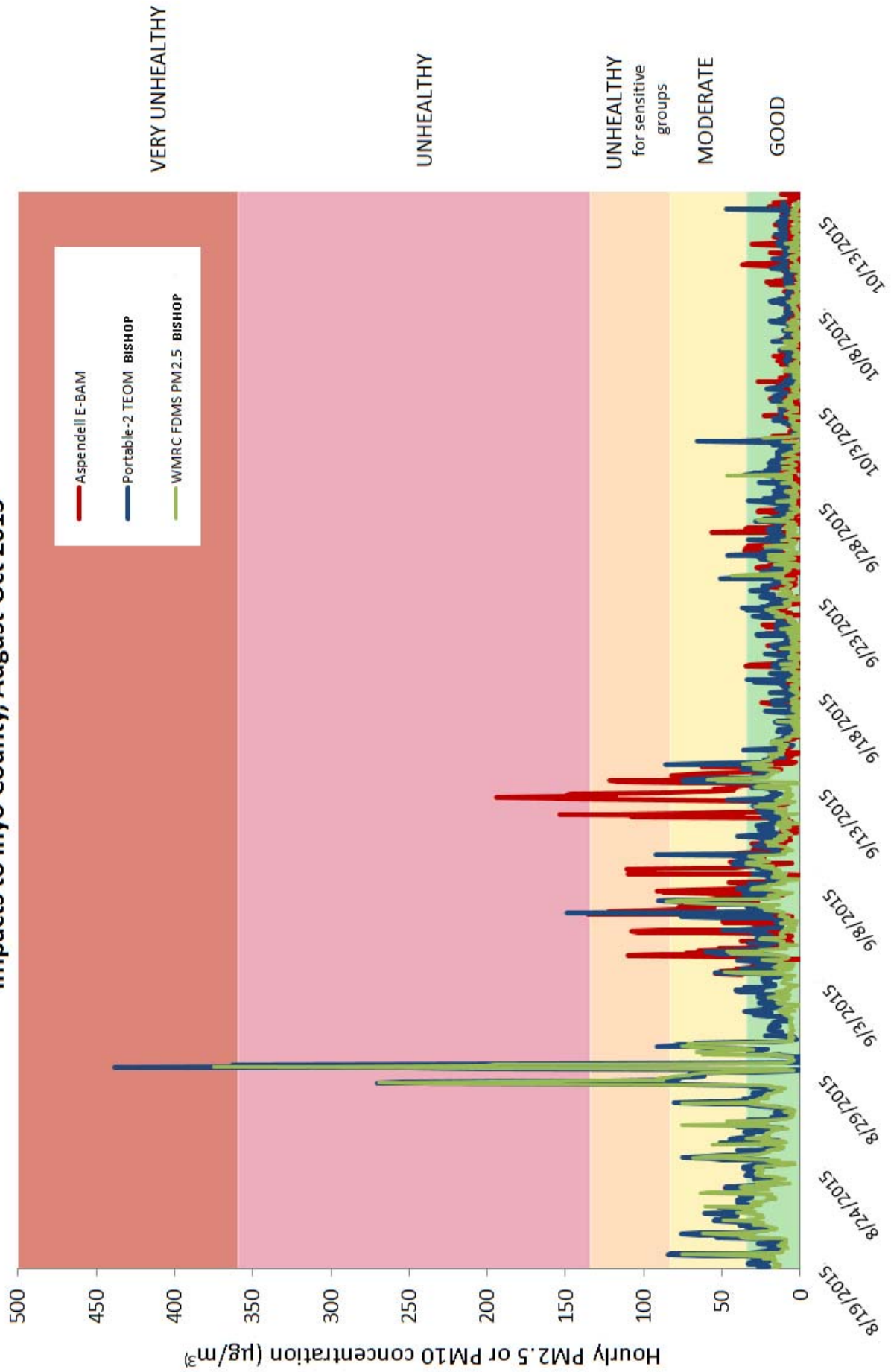
Washington Fire

Alpine County , June-July 2015



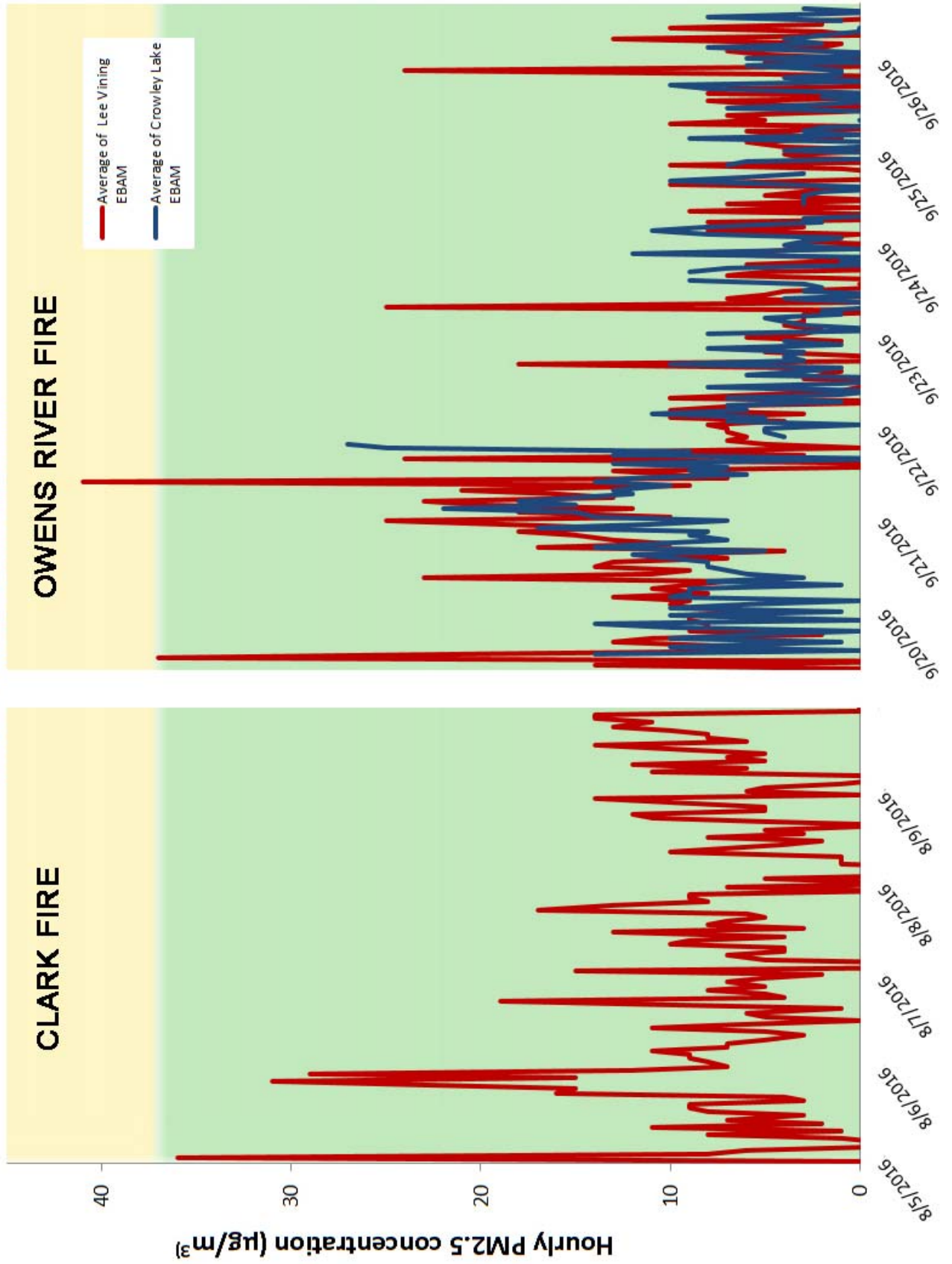
Rough Fire

Impacts to Inyo County, August-Oct 2015



Clark & Owens River Fire

Mono County, August-Sept 2016



QUESTIONS?





GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Kimberly Mitchell, Research and Systems Analyst

Subject: Rule 701 – Air Pollution Episode Plan, Public Health Alert Notifications and Website Updates

Summary:

In March of 2014, the Great Basin Unified Air Pollution Control District (GBUAPCD) adopted Rule 701 - Air Pollution Episode Plan. This rule established advisory procedures and specific pollutant criteria levels (see Table 1) used to alert the public of air contaminants that may be harmful to health, and recommendations to reduce exposure for populations who may be at risk. This rule expanded on the District's Owens Lake Health Advisory Program, which began in 1995 by introducing criteria levels for PM2.5 and wildfire smoke and expanding the program beyond Owens Lake.

Table 1.

Pollutant Criteria Levels			
Air Pollutant	Averaging Time	Stage 1 Health Advisory	Stage 2 Health Advisory
PM10 – Dust	1 Hour	400 µg/m ³	800 µg/m ³
PM2.5 – Dust	1 Hour	150 µg/m ³	300 µg/m ³
PM2.5 or PM10 – Wildfire Smoke	1 Hour	100 µg/m ³	200 µg/m ³

Two Air Quality Health Advisory lists are maintained for episode notifications. The dust advisory list notifies 180 subscribers by email and 58 by text message and the smoke advisory list notifies 199 subscribers by email. Subscribers include schools, health officials, media, Owens Lake workers, and members of the public. This year there have been 27 Air Quality Health Advisories issued between January 1, 2016 and October 18, 2016 (see table 2.)

Table 2.

Number of Notifications – January 1, 2016 to October 18, 2016				
Community	Smoke		Dust	
	Stage 1	Stage 2	Stage 1	Stage 2
Mammoth	0	1	0	0
Bishop	0	0	4	0
Lone Pine	0	0	1	1
Keeler	0	0	7	4
Olancho	1	0	4	3
Other	1	0	0	0
	Northern Mono County			

In addition to issuing Air Quality Health Advisories, the District keeps the public updated on air quality conditions via the GBUAPCD website (www.gbuapcd.org.) Current conditions, health advisories, pollutant levels and links to pertinent information are updated hourly.

Several improvements to the Air Quality Health Advisory program are currently in development including:

- Ability to select specific geographic areas of interest for notifications
- New Agilaire data acquisition system
 - o Hourly access to more accurate pollutant data
 - o Near real-time maintenance invalidation, allowing for more confidence in early reporting
 - o Advanced alert technology to assist with non-business hour events
- New continuous particulate matter (PM) monitor in Lee Vining

Parties who are interested in receiving dust or smoke health advisories should subscribe at <http://gbuapcd.org/healthadvisory/HealthAdvisorySignUp.php>

Board Action:

None.

Attachments:

1. Useful Websites for Smoke and Dust Events
2. Slideshow presentation, “Rule 701 Air Pollution Episode Plan”



USEFUL WEBSITES FOR SMOKE AND DUST EVENTS

Great Basin Unified Air Pollution Control District Websites

- Health Advisory Status: www.gbuapcd.org/healthadvisory
- Current Air Quality Conditions: www.gbuapcd.org/data
- GBUAPCD Air Blog: airblog.gbuapcd.org/
- Webcams: www.gbuapcd.org/dustcam/DustcamReview/animations.php
- Air Quality Visibility Chart: www.gbuapcd.org/healthadvisory/AQI_Visibility.pdf
- Particulate Matter Air Pollution – A Threat to Our Health: www.gbuapcd.org/pm10.htm
- Open Outdoor Burning: www.gbuapcd.org/burn

Other Websites

- 72 hour smoke predictions (US Forest Service's BlueSky Daily Run):
viewer.smoke.airfire.org/run/standard/CANSAC-2km/current/
- AirNow Current Fire Conditions: airnow.gov/index.cfm?action=topics.smoke_wildfires
- California Smoke Information: californiasmokeinfo.blogspot.com/
- Current Federal Fire Information (InciWeb): inciweb.nwcg.gov/
- Sierra Nevada Webcams: rockyags.cr.usgs.gov/dashboards/WebCam.htm
- Smoke Monitoring (EBAM monitors): tools.airfire.org/monitoring/v3



Rule 701

Air Pollution Episode Plan

Kimberly Mitchell
Great Basin Unified Air Pollution Control District
Research & Systems Analyst

GBUAPCD's Air Pollution Episode Plan is a system designed to alert the public of air contaminants that may be harmful to health and to protect that portion of the population at risk. It establishes advisory procedures when specified levels are reached.

Dust Health Advisory

- Automatically triggered
- Notifications are issued by email and/or text message
- www.gbuapcd.org/healthadvisory
- **Stage 1:** Issued when hourly PM_{2.5} is over 150 µg/m³ or PM₁₀ is over 400 µg/m³
 - 16 issued in 2016 (Bishop, Keeler, Lone Pine & Olancho)
- **Stage 2:** Issued when hourly PM_{2.5} is over 300 µg/m³ or PM₁₀ is over 800 µg/m³
 - 8 issued in 2016 (Keeler, Lone Pine & Olancho)

Smoke Health Advisory

- Manually triggered
- Notifications are issued by email
- www.gbuapcd.org/healthadvisory
- **Stage 1:** Issued when hourly PM_{2.5} or PM₁₀ is over 100 µg/m³
 - 2 issued in 2016 (Olancho & Northern Mono County)
- **Stage 2:** Issued when hourly PM_{2.5} or PM₁₀ is over 200 µg/m³
 - 1 issued in 2016 (Mammoth)

Health Alert Actions

Stage 1 Health Advisory

- Minimize outdoor activity.
- Children, the elderly, and people with heart or lung problems refrain from strenuous outdoor activities in the impacted area.
- Outdoor physical education classes, sports practices, and athletic competitions should be rescheduled or cancelled if practicable.

Stage 2 Health Advisory

- Eliminate outdoor activities in impacted area.
- Remain indoors with doors and windows closed until the episode is terminated.
- Avoid all activities that produce aerosols, dust, fumes and other irritants.

Health Alert Notifications

Dust Subscribers

Text: 58

Email: 180

Smoke Subscribers

Email: 199

Grand Staircase-Escalante National Monument
Stage 2 Health Advisory
Affected Communities: Marmoth, Lakes
Smoke Source: Owens River Fire

Based on air pollution levels between 1:00 PM and 3:00 AM (PST) on September 15, 2016 a Stage 2 Air Pollution Health Advisory has been issued for Marmoth Lakes. Smoke is being seen throughout Mono and Inyo Counties. Other communities may be impacted throughout the day.

Due to elevated particulate matter from atmospheric conditions, smoke conditions may be visible. Visit www.gbuapcd.org for more information. District office in Bishop. Health advisories on Owens River Fire at thebigdipper.com. US Forest Service at thebigdipper.com. Hourly PM10 & PM2.5



View of the Owens River Fire - September 17

Recommendations for Outdoor Physical Activity during Smoke Conditions

Activity	Level 1 (PM10 < 150)	Level 2 (PM10 150-250)	Level 3 (PM10 > 250)
Walking	OK	OK	OK
Jogging	OK	OK	OK
Light exercise	OK	OK	OK
Strenuous exercise	OK	OK	OK
Working	OK	OK	OK
School	OK	OK	OK
Travel	OK	OK	OK
Other	OK	OK	OK

Air Quality Health Advisory Alert @23:15:32 on: 16-Oct-2016

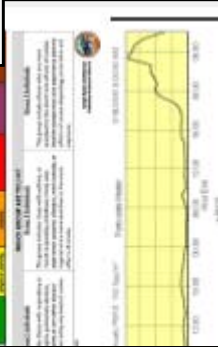
healthadvisory@gbuapcd.org

to me

PM10 Level 2 dust exceedance for: Keeler @ 2016-10-17 00:00
1774.1 micrograms/cubic meter hourly average

It is recommended that you:

1. Eliminate outdoor activities in impacted areas.
2. Remain indoors with doors and windows closed until the episode is terminated.
3. Avoid all activities that produce aerosols, dust, fumes and other irritants..



Verizon 9:21 AM Health Details

Messages 403.58 micrograms/cubic meter

Thu, Sep 22, 7:27 PM

(Air Quality Health Advisory Alert @18:26:13 on: 22-Sep-2016) PM10 Level 1 dust exceedance for: Bishop NCore @ 2016-09-22 19:00
461.9 micrograms/cubic m

Yesterday 10:26 PM

(Air Quality Health Advisory Alert @21:25:09 on: 16-Oct-2016) PM10 Level 2 dust exceedance for: Lone Pine @ 2016-10-16 22:00
1956 micrograms/cubic meter

Today 12:26 AM

(Air Quality Health Advisory Alert @23:25:01 on: 16-Oct-2016) PM10 Level 2 dust exceedance for: Keeler @ 2016-10-17 00:00
1774.1 micrograms/cubic meter

Text Message Send

Sign up at:
<http://www.gbuapcd.org/healthadvisory/HealthAdvisorySignUp.php>

Additional Communication Methods

Event Webpages

[Home](#)
[Air Quality](#)
[Permitting & Programs](#)
[Deer Camp](#)
[Owens Lake](#)

[PM2.5 Monitor](#)
[Monitor](#)
[AQI](#)
[Local Fire](#)
[Weather/Lake](#)
[Sign Up](#)

[Air Monitoring Network](#)
[Air Quality Plans](#)
[Emergency Action Levels](#)
[Search](#)

Rough Fire

- EVENT CLOSED -

Per Inciweb, the Rough Fire is at 95% containment on October 15th, 2015. Air quality monitoring for surrounding communities, including the portable monitor at Aspendell, was suspended October 14th, 2015.

Stage 1 Health Advisory Inyo County High Elevation Communities: September 4, 2015 2:00 PM
 Stage 1 Health Advisory Mono County: September 4, 2015 5:00 AM
 Stage 1 Health Advisory Owens Valley and Mono County: August 24, 2015
 Stage 1 Health Advisory Owens Valley and Mono County: August 21, 2015
 Stage 1 Health Advisory Owens Valley: August 19, 2015

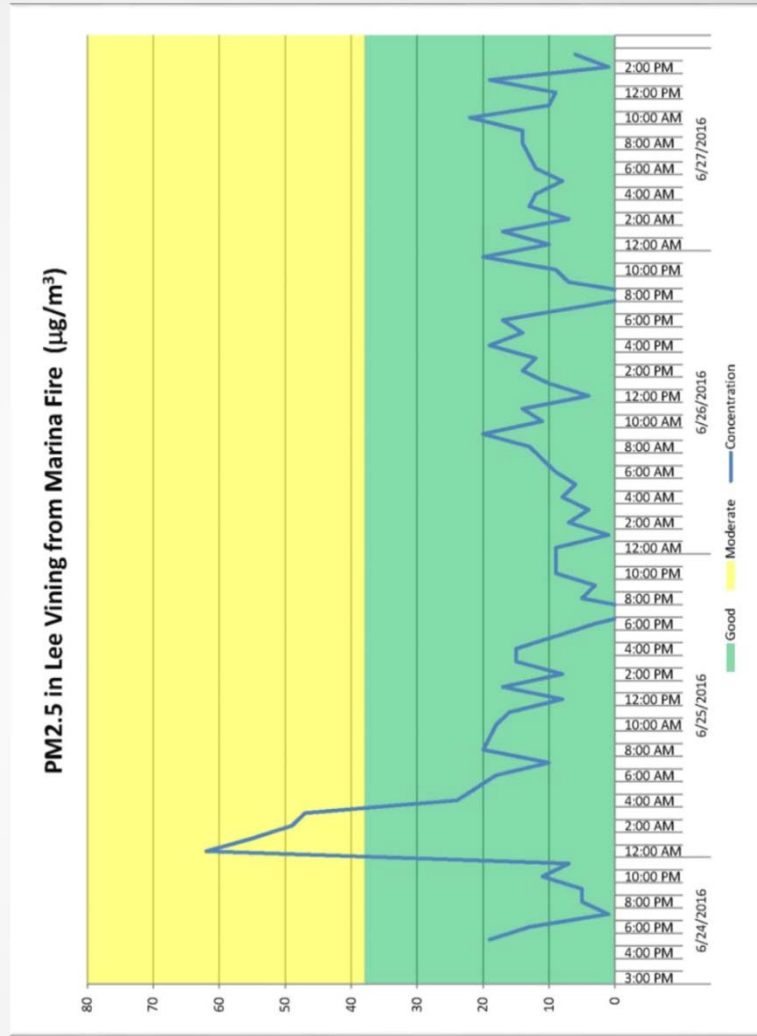
This page contains information related to air quality impacts of the Rough Fire located in Fresno County on the Sierra National Forest and Kings Canyon National Park. Smoke impacts from the fire are being observed in Mono and Inyo counties. Fire updates and daily air quality reports can be found at the Rough Fire Inciweb page, at the California Smoke Information blog page and at the Sierra National Forest Facebook page. The Rough Fire was started by lightning on July 31st, 2015. As of October 14th, 2015 the Rough Fire has grown to 151,622 acres and is 95% contained.

To receive daily updates on the Rough Fire sign up here.

[Click to see current smoke forecast from USFS Surface Firewatch Team](#)


[Video of the Rough Fire from Eagle Lake, INCIWEB on 8/9/15](#)

Mobile Monitoring



Improvements to the Health Alert Notification Process

Community Specific Notifications



Thank you for your interest in air quality in and around the Owen's Valley. Please fill out the following information to begin receiving email and/or sms alerts for poor air quality events.

I would like to receive alerts via sms message

I would like to receive the following alerts:

☐ All dust and smoke alerts

Dust

☐ Bishop dust alerts

☐ Mammoth dust alerts

☐ Keeler dust alerts

☐ Olandha dust alerts

☐ Lone Pine dust alerts

Smoke

☐ Inyo County smoke alerts

☐ Mono County smoke alerts

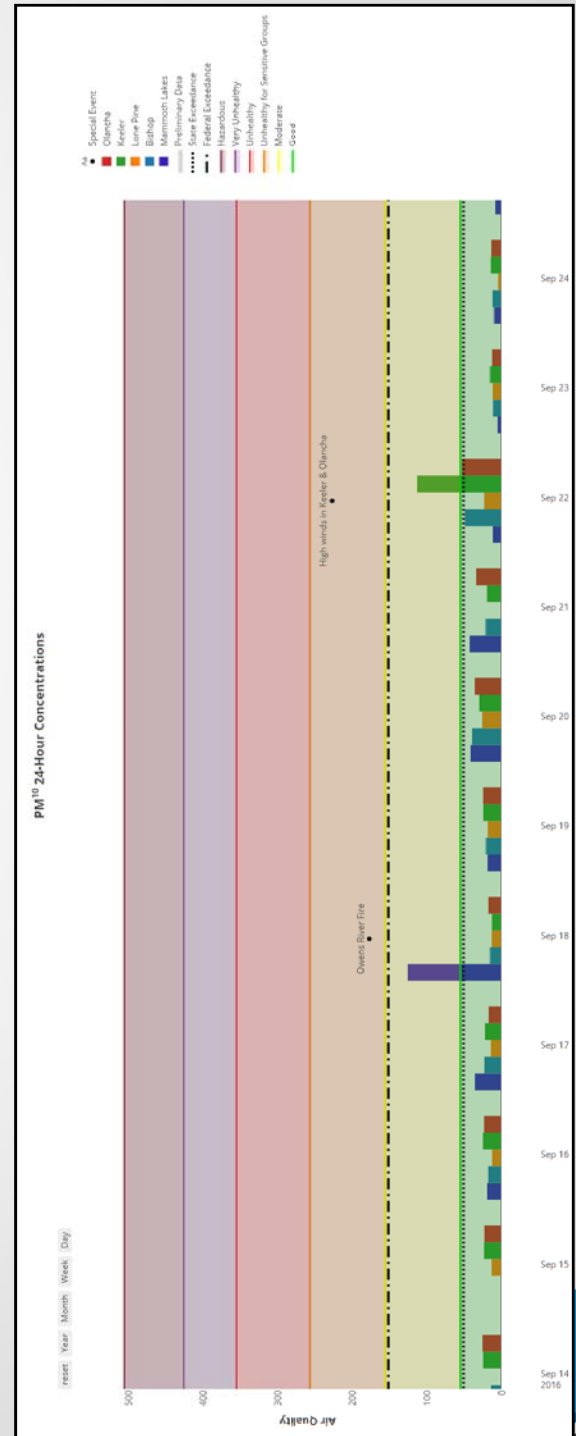
☐ Alpine County smoke alerts

Sign me up

Improvements to the Health Alert Notification Process

Increased Accuracy for Early Reporting

Date	Coso Junction PM_1HR 001h	Dirty Socks PM_1HR 001h	Keeler PM_1HR 001h	Keeler PM25 1HR 001h	Lizard Tail PM_1HR 001h	Lone Pine PM_1HR 001h	Mammoth Lakes PM_1HR 001h	MHI PM_1HR 001h	Mono Shore PM_1HR 001h	North Beach PM_1HR 001h	Olancho PM_1HR 001h	Portable 2 PM_1HR 001h	Shell Cut PM_1HR 001h	Stanley PM_1HR 001h
Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value	Final Value
9/28/2016 0100	18.6	17.9	13.9	15.1	5.9	17.1	18.4	10.5	10.6	11.8	22.4	14.7	16.4	19.4
9/28/2016 0200	16.2	15.7	17.7	18.8	3.1	18.9	11.2	15.6	6.3	14.5	20.2	15.7	18.7	20.2
9/28/2016 0300	17.5	17.9	15.9	15.9	2.4	17.9	7.7	10.9	9.3	15.5	28.8	17.9	17.4	19.1
9/28/2016 0400	41.7	23.6	20.5	21.6	4.7	17.6	11.5	10.5	19.6	7.6	24.1	25.9	12.6	19.5
9/28/2016 0500	21.6	148.0	27.3	28.1	8.3	18.2	14.0	17.2	10.0	30.3	60.2	15.3	21.4	19.1
9/28/2016 0600	21.6	33.4	41.0	42.5	7.9	22.1	27.7	22.1	9.8	15.9	124.9	16.2	20.5	21.0
9/28/2016 0700	27.7	19.6	29.4	32.7	8.5	19.9	68.3	0.0	22.0	16.9	25.2	20.6	23.5	21.1
9/28/2016 0800	27.1	20.5	136.5	127.2	26.8	17.4	19.1	53.1	7.8	18.1	18.7	18.8	17.9	29.0
9/28/2016 0900	21.4	27.5	36.2	35.0	10.9	16.2	21.9	31.6	7.0	17.6	18.2	12.8	17.8	0.0
9/28/2016 1000	18.1	20.0	38.8	41.2	7.3	31.9	24.3	29.7	5.4	17.6	23.4	18.4	26.9	21.0
9/28/2016 1100	23.8	19.9	83.7	77.1	13.0	22.2	20.5	21.5	3.3	18.9	31.5	17.6	23.4	22.3
9/28/2016 1200	16.8	20.3	33.6	33.5	6.7	22.0	49.5	18.2	3.9	18.7	36.8	50.0	23.4	16.8
9/28/2016 1300	12.8	15.2	41.2	41.6	6.4	12.7	20.2	17.2	6.3	11.2	18.9	27.8	19.3	18.9
9/28/2016 1400	17.1	17.7	65.5	72.1	4.5	15.8	36.6	12.9	11.0	9.0	19.7	25.2	15.6	16.0
9/28/2016 1500	14.7	13.2	54.9	47.4	9.2	17.8	38.3	10.1	13.6	13.6	18.2	20.6	15.7	15.7



Improvements to the Health Alert Notification Process

New Continuous Monitor in Lee Vining





GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Tori DeHaven, Clerk of the Board

Subject: Approval of Minutes of the September 14, 2016 Governing Board Regular Meeting

Summary

Attached for the Board's approval are the minutes from the September 14, 2016 regular meeting held in Mammoth Lakes, California.

Board Action:

Staff recommends that the Board review and approve the minutes from the September 14, 2016 meeting.

Attachment: September 14, 2016 minutes

Approval of the September 14, 2016 Regular Governing Board Meeting Minutes (Action)
November 10, 2016 – Agenda Item No. 4a – Page 1

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
GOVERNING BOARD MINUTES
September 14, 2016

(All Meetings Are Mechanically Recorded)

The Great Basin Unified Air Pollution Control District Governing Board of the Counties of Alpine, Inyo and Mono, State of California met at 10:00 am on September 14, 2016 at the Town of Mammoth Lakes Council Chambers, 437 Old Mammoth Road (Suite Z), Mammoth Lakes, California 93546.

The following Board members were present: Board Chair Johnston, Mono County; Board member Stump, Mono County; Board member Kingsley, Inyo County; Board member Griffiths, Inyo County; Board member Rawson, Alpine County; Board member Hames, Alpine County; and Board member Wentworth, Town of Mammoth Lakes.

GBUAPCD staff present: Phill Kiddoo, Air Pollution Control Officer; Susan Cash, Administrative Projects Manager; Nik Barbieri, Director of Technical Services; Grace Holder, Senior Scientist; and Tori DeHaven, Clerk of the Board.

Agenda Item #1
Call to Order
Pledge of Allegiance

Board Chair Johnston called to order the regular meeting of the Governing Board at 10:03 a.m.

Board member Rawson then led the Pledge of Allegiance.

Agenda Item #2
Public Comment on
Items not on the
Agenda
(No Action)

Board Chair Johnston asked for public comment on items not on the agenda at 10:04 am.

No comment was offered.

Agenda Item #3
Election of
Governing
Vice Chair for 2016
(Action)

Motion (Griffiths/Hames) electing Board member Wentworth to the position of Governing Board Vice Chair for 2016.

Ayes: Johnston, Stump, Hames, Rawson, Kingsley, Griffiths, Wentworth

Noes: 0

Abstain: 0

Absent: 0

Motion carried 7/0 and so ordered.

B/O 160914-03

Agenda Item #4
Adopt and Authorize
the Board Chair to
Sign Resolution
2016-05
Recognizing Duane
Ono, Deputy Air
Pollution Control

APCO Kiddoo read Resolution 2016-05 noting Deputy Air Pollution Control Officer Ono's contributions and career highlights. DAPCO Ono will be retiring after more than 27 years of service, on December 27, 2016.

Motion (Kingsley/Stump) adopting and authorizing the Board Chair to sign Resolution 2016-05 recognizing Duane Ono, Deputy Air Pollution Control Officer, upon his retirement.

Discussion:

Board Chair Johnston commented, *“Duane is a special individual and he deserves a lot of the credit for the work that has been done on the Owens dry lake as well as on other significant projects. Duane is a great example of how a public servant can really step up and do great service for the public and everyone involved. It was a tough, tough time during the last five to ten years, working with DWP and Duane’s been right there all along. So I just really want to pass on my congratulations on his retirement.”*

Board member Hames added, *“The Great Basin really has been benefited by his experience and his dedication but you are sorely going to be missing his skillset and dedication as well, and I think it behooves you to try and come up to his level, which, I think, is going to be very hard. He really was one of the most important parts of this...agreements that we’ve had and to get that air control, under control.”*

Board member Kingsley said, *“Duane I think played, In my tenure here, played really a special role in that he always advocated for the strictest and most enforceable negotiations or...I’m not sure exactly how to characterize it, the Owens took...you knew he was going to give you the bottom line; the hardline. And whether or not I agreed with that on every occasion or not, and I didn’t, that’s an important role for somebody to play so that you have that perspective, because otherwise it’s hard to actually, to sometimes do the...you don’t know where the bottom line is and it’s hard to negotiate in some cases. So I really did appreciate, do appreciate, Duane’s role that he played. I think it’ll be...well, he will be missed in some ways, in many ways but in that particular way, I think. He played a really important role for the District and he’s done it for a lot of years, too.”*

Board member Rawson also added, *“I would just like to express my thanks to him for stepping up to the general manager role for as long as he did, as we were without leadership, and he did it with professionalism. I appreciate that.”*

APCO Kiddoo noted, *“In personal communications with Duane, he did express his gratitude and enjoyment in working with District staff and the work that we’ve done for twenty-seven and a half years. He also indicated that the work has been extremely satisfying, which is a neat way to go, and he also expressed that he really enjoyed working with the District Board and doing the right thing and doing it the right way.”* APCO Kiddoo then showed the Board the handcrafted replica of a PM₁₀ monitoring shelter that staff had made for Duane commemorating his retirement. The PM₁₀ monitoring shelter represents something that Duane always said, *“If it isn’t monitored, it didn’t happen.”*

Ayes: Johnston, Stump, Hames, Rawson, Kingsley, Griffiths, Wentworth

Noes: 0
Abstain: 0
Absent: 0

Motion carried 7/0 and so ordered.

B/O 160914-04

Agenda Item #5
Consent Items
(Action)

Motion (Stump/Hames) approving consent agenda items b through f as follows:

- b. Authorize the Air Pollution Control Officer to sign and submit application for state subvention funds
- c. Approve and authorize Board Chair to sign Memoranda of Understanding with District Management and Non-Management Employee Groups regarding changes to District employee wages and benefits
- d. Approve and authorize Board Chair to sign amendment to contract with Phillip L. Kiddoo for the provision of a personal services as the District Air Pollution Control Officer
- e. Approve purchase of a monitoring shelter from EKTO Manufacturing, a District sole-source provider, for the Lee Vining Monitoring Station for \$42,000
- f. Approve exchange of District Teledyne API Model 602 Continuous Particulate Monitor for two Thermo Model 1405 PM10 Monitors from San Joaquin Valley APCD

Ayes: Johnston, Stump, Hames, Rawson, Kingsley, Griffiths, Wentworth
Noes: 0
Abstain: 0
Absent: 0

Motion carried 7/0 and so ordered.

B/O 160914-05b

Motion (Rawson/Stump) approving consent agenda item a, with amendments to pages 2 and 3, as attached:

- a. July 13, 2016 Governing Board meeting minutes

Ayes: Johnston, Stump, Hames, Rawson, Kingsley, Griffiths
Noes: 0
Abstain: Wentworth
Absent: 0

Motion carried 6/0 and so ordered.

B/O 160914-05a

Agenda Item #6
Keeler Dunes Project
Update
(No Action)

Dr. Grace Holder, Senior Scientist, gave a slideshow presentation updating the Board on progress made for the Keeler Dunes Project.
(the presentation is available upon request to the Clerk of the Board)

Agenda Item #7
Owens Lake Phase
9/10 Construction
Update
(No Action)

Nik Barbieri, Director of Technical Services, gave a slideshow presentation updating the Board on Owens Lake Phase 9/10 Construction.
(the presentation is available upon request to the Clerk of the Board)

Agenda Item #8
Informational Items
(No Action)

No comment or questions.

Agenda Item #9
Board Member
Reports
(No Action)

Board member Stump noted that he would have to leave at 11:50 this morning.

Agenda Item #10
Air Pollution Control
Officer's Reports
(No Action)

APCO Kiddoo gave a report on the following topics:

- 1) Various agency representatives have been contacted to invite them to speak at a Forest & Air Workshop scheduled for November 10, 2016, at the Board's next regular meeting. Representatives include Unit Chief Glenn Barley, CALFire San Bernardino/Inyo/Mono; Anthony Caprio, Fire Ecologist, Sequoia, Kings and Devil's Postpile National Parks; Deb Schweizer, Public Affairs Officer, Inyo National Forest; and Don Schweizer, who specializes in smoke transport, US Forest Service Region 5.
- 2) Staff has invited Tina Suarez from the California Air Resources Board to speak at a California Regional Haze SIP/Plan revision workshop to be held at the Board's regular meeting on January 12, 2017.
- 3) On September 13, 2016 the United States Environmental Protection Agency published a notice in their federal registrar of their proposed intent to adopt Rule 433 – Control of Particulate Emissions at Owens Lake. This is now in the 30-day comment period, and after this period, this is the first step in approval of our 2016 SIP.
- 4) The T28 Gravel Inundation – shallow flood area which was transitioning to a hybrid BACM area which consists of gravel and shallow flood. Prior to the sprinkler systems being turned on in adjacent areas that were going to be managed vegetation, large sand deposits inundated on top of the gravel. This happened in November and December (2015) during three large wind events. Staff sent a letter of concern to DWP in December, and as should happen, DWP promptly responded. Their response was, 'we realize we have a major problem on our hands, what can we do to fix it, let's work together.' Staff met with DWP out there shortly after. It's taken six months but now all of the areas are back to a functional BACM state. Staff went

out there in early August (2016) and confirmed. A letter was issued by staff to DWP notifying them that they are now in compliance.

- 5) NOV 473 – This was a NOV that was written to the DWP back in 2011 regarding the Channel Area for non-compliance of BACM. Subsequently, the dust control mitigation efforts out there have been sufficient. As it has been the District's desire to resolve the outstanding NOV, staff asked DWP for early vegetation monitoring of the Phase 7a areas. They will do this two years earlier than anticipated which will be helpful in monitoring the progression of the vegetation growth. Staff will also be collecting DWP's Channel Area data and incorporating that into our Dust ID model. DWP has agreed to the settlement offer and accepted it.
- 6) NOV 461 – This is a NOV for Phase 7a areas of shallow flooding in which DWP was using sprinklers to meet the shallow flood compliance which they were unable to meet previously. District staff worked with DWP for six months to try and get area wetness up to compliance standards which DWP was unable to do. DWP later tested the system in July and was able to achieve compliance. Initial DWP response was very strongly worded and they weren't intent on meeting compliance. Since receiving District staff response detailing requirements of the law and requirements of our agreements, DWP has indicated that they will meet compliance and will pay an emissions offset fine. The fine has to be put into the District's Owens Lake emissions offset fund in accordance with the 2011 Stipulated Order for Abatement (2011 SOA). Staff will be coming to the Board on how to spend that money; it has to be prioritized for the OVPA (Owens Valley Planning Area) according to the 2011 SOA. Staff will recommend that the money be transferred to the Keeler Dunes Dust Control Project. The money cannot be used for any DWP projects.

Agenda Item #11
Confirm Date and
Location of Next
Regular Meeting
(November 10, 2016
in Mono County, CA)

The next regular meeting of the District Governing Board will convene at 10:00 am on November 10, 2016 in Mammoth Lakes, California. The District's Clerk of the Board will find and reserve a handicap accessible meeting room and contact the District Board members as to its location.

Agenda Item #12
CLOSED SESSION

Board Chair Johnston convened the Board into closed session at 11:24 am.

12. CLOSED SESSION - The Board will recess into closed session for a conference call with legal counsel regarding existing litigation in the following matters:

- a. Russell Covington; Robert Moore; Randy Sipes; Randal Sipes, Jr.; Laborers' International Union of North America Local Union No. 783 vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140075; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.
- b. Mammoth Community Water District vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No.

CV140076; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.

- c. Mammoth Community Water District vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140076; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.

The Board reconvened into open session at 11:50 am. The Board reported as follows:

There was nothing to report, however, it was noted that closed session item 12.c was a duplicate.

Adjournment

The meeting was adjourned by Board Chair Johnston at 11:50 am. The Board will reconvene in open session at 10:00 am, on Thursday, November 10, 2016 in Mammoth Lakes, California.

Larry Johnston, Board Chair

Attest:

Tori DeHaven, Board Clerk

GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT
GOVERNING BOARD MINUTES

July 13, 2016

(All Meetings Are Mechanically Recorded)

The Great Basin Unified Air Pollution Control District Governing Board of the Counties of Alpine, Inyo and Mono, State of California met at 10:00 am on July 13, 2016 at the Alpine County Administrative Center, 99 Water Street (State Highway 89), Markleeville, California 96120.

The following Board members were present: Board Chair Larry Johnston, Mono County; Board member Stump, Mono County; Board member Kingsley, Inyo County; Board member Griffiths, Inyo County; Board member Rawson, Alpine County; and Board member Hames, Alpine County. Board member Wentworth, Town of Mammoth Lakes, was absent.

GBUAPCD staff present: Phill Kiddoo, Air Pollution Control Officer; Susan Cash, Administrative Projects Manager; Chris Lanane, Air Monitoring Specialist; Nik Barbieri, Director of Technical Services; Mike Slates, Research & Systems Analyst II; and Tori DeHaven, Clerk of the Board.

Members of the public included: Liz O'Sullivan, Mono County Resident.

Agenda Item #1 Call to Order Pledge of Allegiance	Board Chair Johnston called to order the regular meeting of the Governing Board at 10:10 a.m.
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Board members Kingsley and Griffiths were absent.

Board member Stump then led the Pledge of Allegiance.

Agenda Item #3 Election of Governing Vice Chair for 2016 (Action)	The Board determined that a Vice Chair would be elected at the September meeting.
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Agenda Item #4 Consent Agenda (Action)	It was determined that the Board would decide on consent agenda item 'a' with the arrival of Board members Kingsley and Griffiths.
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Motion (Rawson/Hames) approving consent agenda items b through i as follows:

- b. Approve consulting and service contracts for fiscal year 2016-2017 (effective July 1, 2016)
- c. Approve office and monitoring leases and rental agreements for fiscal year 2016-2017 (effective July 1, 2016)
- d. Approval of annual sole-source determination
- e. Approve travel and expenditures related to Washington D.C. trip to accept EPA Award

- f. Out-of-state travel authorization: USEPA National Ambient Air Monitoring Conference, August 8-11, 2016, St Louis, Missouri
- g. Approve update to Discrimination and Harassment Policy
- h. Approve the transfer of funds from capital asset reserves and approve the purchase of one (1) new 2016 high-clearance 4 door 4 wheel drive sports utility vehicle in the amount of \$35,117.39 from Perry Motors, Inc
- i. Approve purchase orders with Campbell Scientific and Sensit Company for the total amount of \$62,021.20 for the purchase of sand motion monitors and radios for the Owens Lake and Mono Lake Dust ID networks

Ayes: Johnston, Stump, Hames, Rawson

Noes: 0

Abstain: 0

Absent: Kingsley, Griffiths, Wentworth

Motion carried 4/0 and so ordered.

B/O 160713-04b

Board members Kingsley and Griffiths arrived at 10:13 am.

Motion (Rawson/Hames) approving consent agenda item a as follows:

- a. Approval of the May 16, 2016 regular Governing Board meeting minutes

Ayes: Johnston, Griffiths, Hames, Rawson

Noes: 0

Abstain: Kingsley, Stump

Absent: Wentworth

Motion carried 4/0 and so ordered.

B/O 160713-04a

Agenda Item #5
Informational Items
(No Action)

APCO Kiddoo gave a brief summary on each informational item. The Board congratulated staff on its receipt of an award from the U.S. Environmental Protection Agency. The Board then directed discussion toward concerns about tree mortality issues currently being discussed by local agencies. APCO Kiddoo noted that although not everyone is on the same page when it comes to solutions in addressing these issues he suggested that perhaps this topic be listed on a future agenda for the Board to discuss.

Deleted: begin

Agenda Item #2
Public Comment on
Matters not on the
Agenda

Board Chair Johnston asked for public comment on items not on the agenda at 10:38 am.

(No Action)

Ms. Liz O'Sullivan, Mono County Resident, noted her concerns regarding the US EPA's intention to amend the Clean Air Act specifically in regards to the Regional Haze Rule. Ms. O'Sullivan's concerns can be summarized as follows:

(Ms. O'Sullivan provided a copy of the presentation she gave to the GBUAPCD Board in 2011; a copy is available upon request to the Clerk of the Board)

- 1) It is disturbing that we have to weaken and/or dismantle environmental laws in order to protect and restore the environment.
- 2) Humans are part of the environment and we should not degrade human health and welfare at the expense of the environment.
- 3) The human body does not distinguish between natural vs. human made pollution.
- 4) We need to treat urban wildland interface to ensure that human life and property is not lost, however, is the best available science which is being used to treat the forests really the best available science?
- 5) Humans fail to fully understand the nuances of the environment and perhaps Mother Nature should be left to do what needs to be done to take care of her own.
- 6) There is an opportunity for the District to weigh in on this issue and ask the big questions specifically why human health has to be sacrificed to restore wildland.

The Board requested that this topic be a future agenda item or as a workshop. The Board then asked APCO Kiddoo to address the Regional Haze Rule in his APCO report.

Board Chair Johnston closed the public comment period at 10:46 am.

Agenda Item #6
Adoption of the 2016
Great Basin Unified
APCD Air Quality
Monitoring Network
Plan for Air
Monitoring Efforts
in the District
(Action)

Board member Kingsley left at 10:46 am.

APCO Kiddoo gave a brief report on the AQMNP as well as a summary of the comments as submitted by the LADWP.

Deleted: City

Board member Kingsley returned at 10:50 am.

Motion (Stump/Rawson) adopting the District's Annual Air Quality Monitoring Network Plan for submission to the US EPA Region IX administrator for approval.

Ayes: Johnston, Griffiths, Hames, Rawson, Kingsley, Stump

Noes: 0

Abstain: 0

Absent: Wentworth

Motion carried 6/0 and so ordered.

B/O 160713-06

Agenda Item #7
Approve Resolution
Setting Regular
Board Meeting dates,
Times, and
Locations
(Action)

Motion (Griffiths/Kingsley) approving a resolution setting the time, place, and location for regular meetings in compliance with the Brown Act. Regular meetings will occur at 10:00 am on the second Thursday of odd months.

Ayes: Johnston, Griffiths, Hames, Rawson, Kingsley, Stump

Noes: 0

Abstain: 0

Absent: Wentworth

Motion carried 6/0 and so ordered.

B/O 160713-07

Agenda Item #8
Board Member
Reports
(No Action)

Board member Rawson – Burn Boss delay due to nesting birds.

Board member Hames – added that the birds that are nesting are seasonal migratory birds that are nesting in the burn pile.

Board member Stump – stated that he was enjoying relatively clean air this summer.

Board member Griffiths – noted that he toured the Rough Fire area and met with the coalition that is forming regarding tree mortality and fire on the landscape.

Board member Kingsley – nothing to report.

Board Chair Johnston – explained that he had recently visited forest area on the west side that has been devastated by tree mortality.

Agenda Item #9
Air Pollution Control
Officer's Reports
(No Action)

APCO Kiddoo gave a report on the following topics:

- 1) The Board approved the 2016 SIP and staff transmitted it to the California Air Resources Board who has since submitted it to the U.S. Environmental Protection Agency for approval.
- 2) The District was part of a six-part series published by Greenwire, entitled *Dead Seas* (link available on the District website www.gbuapcd.org)
- 3) Although staff wasn't given much time to research and fully understand the Regional Haze Rule, as introduced by Ms. O'Sullivan, staff noted that the rule was first adopted in 1990 with monitoring efforts occurring beginning in 1980. The last revision was done in 1999 and is now being reviewed for possible revision. Staff will continue to research this issue with plans for a future agenda item and/or workshop.
- 4) On July 8, 2016 Notice of Violation (NOV) 461 (*failure to install, operate and maintain fully compliant BACM in Phase 7a transition areas by*

December 31, 2015) and Notice to Comply (NTC) 1113 (request to submit quarterly reports for the Phase 7a areas as required by SOA #110317-01, paragraph 9).

- 5) After more than 27 years of service as the Deputy Air Pollution Control Officer, Duane Ono will be retiring as of the end of this year.

Agenda Item #10
Set Date and
Location of Next
Regular Meeting
(September in Mono
County, CA)

Due to the Board members being unavailable to attend the regularly scheduled meeting, in accordance with the newly adopted Board meeting schedule, the Board will hold a special meeting at 10:00 am on September 14, 2016 in Mammoth Lakes, California. The District's Clerk of the Board will find and reserve a handicap accessible meeting room and contact the District Board members as to its location.

**Agenda Item #11,
12, & 13**
CLOSED SESSION

Board Chair Johnston convened the Board into closed session at 11:38 am.

11. CLOSED SESSION - The Board will recess into closed session for a conference call with legal counsel regarding existing litigation in the following matters:

- a. Russell Covington; Robert Moore; Randy Sipes; Randal Sipes, Jr.; Laborers' International Union of North America Local Union No. 783 vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140075; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.
- b. Mammoth Community Water District vs. Great Basin Unified Air Pollution Control District; Mono County Superior Court, Case No. CV140076; pursuant to subdivision (a) of Section 54956.9 of the California Government Code.

12. CLOSED SESSION

- a. Evaluation of performance – Section 54957(b)(1) of the California Government Code. Employee being evaluated: Air Pollution Control Officer
- b. Conference with labor negotiators – Section 54957.6 of the California Government Code: Changes regarding the salaries, salary schedules or compensation paid in the form of fringe benefits. Employee: Air Pollution Control Officer

13. CLOSED SESSION

- a. Conference with labor negotiators – Section 54957.6 of the California Government Code: Changes regarding the salaries, salary schedules or compensation paid in the form of fringe benefits. Employee groups: Management Employees and Non-Management Employees. Board-designated representative: Air Pollution Control Officer.

The Board reconvened into open session at 1:14 pm. The Board reported as follows:

Regarding item #11, nothing to report.

Regarding item #12, negotiations have been completed. A contract will be coming back.

Regarding item #13, a contract will be coming back.

Adjournment

The meeting was adjourned by Board Chair Johnston at 1:15 pm. The Board will reconvene in open session at 10:00 am, on Wednesday, September 14, 2016 in Mammoth Lakes, California.

Attest:

Larry Johnston, Board Chair

Tori DeHaven, Board Clerk



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Susan Cash, Administrative Projects Manager

Subject: Award of Contract for Purchase and Servicing of Multifunction Copier

Summary:

Staff determined that it was time to replace the main multifunction copier at the District office. The current copier is 7 years old and has become unreliable.

Bids were solicited in accordance with the District's Purchasing, Bidding, and Contracting Policy. The bid opening took place in the Bishop office on Tuesday, October 18 after a closing of bid receipts at 5:00 PM the prior day. The District staff ran bid announcements in 4 newspapers (Inyo Register, The Sheet, Daily Independent, and Tahoe Daily Tribune) as well as on the District's website and at the office from September 19th through October 15th.

Only one bid was received. The bidder is the current service provider for the copier to be replaced. The bid appears compliant and meets the District's specifications which includes disposal of the District's current ImageRUNNER C5185i.

Fiscal Impact:

The equipment cost for the new multifunction copier and accessories will be \$13,687.92. The per page service charge is \$0.0076 black & white, \$0.0502 color, and covers all parts, drums, labor, toner, and staples. At current usage, this is approximately \$1,400/year. The funds (15% District, 85% SB270) are budgeted in the >\$5,000 Materials & Equipment budget for FY 2016-17.

Board Action:

Approve the purchase of one (1) new Cannon ImageRUNNER ADVANCE C5560i and accessories detailed in the bid received from American Business Machines in an amount not to exceed \$13,687.92 and authorize the APCO to sign any service agreements for the copier.



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Susan Cash, Administrative Projects Manager

Subject: Designation and disposal of surplus equipment

Summary:

The District's Purchase, Bidding and Contracting Policy (Rule 1101) contains a section that sets forth a procedure for the disposal of surplus materials (Section 4.3). The procedure requires District staff to prepare a list of surplus materials with a disposal justification and an estimated value for each item. The list must then be submitted to the Board for their review and approval. Upon approval of the list, the items may be offered to local schools, governments or non-profit organizations. Valueless items may be disposed of as refuse. The remaining materials are disposed of via public auction sale to the highest bidder. Any items remaining after the public auction may be disposed of as refuse.

The District currently has vehicles, computers, office equipment and miscellaneous scientific equipment that have been replaced, are inoperable, or are obsolete. The equipment is listed on the following page and with the exception of the vehicles, are estimated to have little or no value or would cost more to dispose through the bidding process than the District would recoup. Staff requests that the Board declare this equipment as surplus and authorize the Air Pollution Control Officer to dispose of all equipment except the vehicles by offering it at no-cost to local schools, other government agencies or to charitable non-profit organizations and disposing of remaining equipment.

The vehicles will be offered at a minimum bid of 70% of their low Blue Book value. The bidding procedure is set forth in Section 4.3 and requires publication of notice in the newspaper and the submission and opening of sealed bids. The proceeds from the sale of the equipment will be credited to the budget from which the equipment was purchased (if known).

Board Action:

Staff recommends that the Board declare as surplus all the equipment and vehicles listed in the staff report and authorize the APCO to dispose of such as provided in the District's Purchase, Bidding and Contract Policy (Section 4.3 of Rule 1101).

2 Desk Chairs, high-back	DSL Modem - Verizon	Nikon SLR
Desk	TP-Link wifi router	Nikon SLR
Side Chair	HP LaserJet P2035 printer	2 56K modems
Side Chair	7 Flex grip headsets	2 phone cords
Side Chair	2 portable lamps	~1,200 capillary pipettes
HP ScanJet 5590	Fujifilm digital camera	post-it note dispenser
HP DeskJet 5850	small portable safe	2 paperclip dispensers
Kodak PlaySport Zx3	VCR	2 desk supply organizers
Desk Chair	2 side chairs	microcassette recorder & tapes
File Cabinet	Partition wall	10 rolls cash register tape
File Cabinet	Coil binder supplies	7 bookends
Kodak playsport video/camera	Coil-Mac EPI 41	2 large plastic totes
Fujifilm AX200 video/camera	10 ballasts	9 wall shelf brackets
Panasonic SV-AV250 video/camera	suction cups	2 office chairs
Canon camera charger	Books	1 small office chair
Coso water bottle	Binders 1"-5" (100)	1 short roll around printer table
5 hard hats	Telex Replica	1 HP laserjet pro M1530
5 hardhat sweatbands	Metal sorter	1 Epson Printer Color 980
2 pairs steel toes	Plastic sorters (8)	1 Epson Printer C42UX
10" level	Plastic magazine storage	3 R&P 2000 FRMS
Magnahelic gage	Plastic hanging wall box	Lot of BGI PQI FRM
safety glasses	Metal folding copy holder	2 Chair Mat (for carpet)
HP 0950-4404 A/C power adapter	Heavy duty stapler	1 Panasonic Answering Machine
iGo universal charger	4 desk staplers	2 Honda Fortrax 300 (see next page)
Griffin Gc17055 Aux cable	mini stapler	1 2001 Tacoma 4x4 (see next page)
telephone cable	4 2-hole punches	1 1999 4 Runner (see next page)
telephone cable	2 Rolodexes + blank cards + colored covers	1 2000 Ford Ranger (see next page)
Desk return/receiver	1-hole punch	1 iPad
HP LaserJet 4MP	4 staple removers	1 iPad
Hanging folder frames (3)	11 keyboards	1 iPad Mini
Typewriter table	2 mice	1 CamOne Infinity (action camera)
Highback office chair	wristpad for keyboard	4 Trango receiver antenna
Cork board	Universal NiCd/Ni-MH battery charger	1 HP plotter
chair	Sharp adding machine	7 Dell Desktop computers
side chair	4 landline phones	3 Dell keyboards
metal bookshelf	Dictaphone	5 computer monitors
Office chair	1 regular desk tape dispenser	1 HP deskjet 6122 printer
Office chair	1 large desk tape dispenser/2 rolls of tape	2 drawer large desk
APC Universal Power Supply	desk drawer organizer	17 Mini Macs
Land Line Phones (18)	3 clipboards	
Drying Oven	Panasonic tape transcriber	
MiniMac	5 large heavy duty baking sheets	

VEHICLE VALUATIONS			
VEHICLE	MILEAGE	KBB/NADA VALUE	MINIMUM BID
2000 Honda Fourtrax 300	5,911	\$855	\$ 600
2000 Honda Fourtrax 300	4,320	\$855	\$ 600
2001 Tacoma 4 X 4	159,841	\$3,444	\$2,400
1999 Toyota 4 Runner	202,226	\$3,049	\$2,125
2000 Ford Ranger	160,560	\$2,060	\$1,425



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

Date Prepared: October 3, 2016

To: District Governing Board

From: Tori DeHaven, Clerk of the Board

Subject: Re-appointment of Hearing Board Members

Summary:

The District Hearing Board is an independent, five-member quasi-judicial body that conducts public hearings to grant variances from District Rules, and makes decisions on permit appeals. The Hearing Board meets on an as needed basis and the Chairman is authorized to act alone for short-term and emergency variance matters.

The Governing Board, as provided by the California Health & Safety Code Section 40800, appoints members of the Hearing Board to three-year terms. The District's Unification Agreement requires that the Hearing Board consist of at least one member from each county in the District; current composition includes two members from Inyo County, one member from Mono County and one member from Alpine County.

Currently, there are three Hearing Board members whose term will expire in December 2016: Mr. Peter Pumphrey (Mono County), Ms. Ceal Klingler (Inyo County) and Mr. Tom Sweeney (Alpine County). With the exception of Ms. Klingler, the above mentioned Hearing Board members have indicated that they would like to be considered for re-appointment to the Hearing Board for another term of three years. Ms. Klingler has submitted her resignation and staff will be advertising for at least one more Hearing Board position.

Fiscal Impact: Hearing Board members are compensated \$100 per meeting and reimbursed for travel expenses.

Board Action:

District Staff recommends that Hearing Board members Pumphrey and Sweeney be re-appointed to the Hearing Board for a three year term ending December 31, 2019.

This action complies with the Unification Agreement.

Re-appointment of Current Hearing Board Members (Pumphrey, Sweeney)
(Action)

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GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

www.gbuapcd.org

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Grace A. McCarley Holder, Senior Scientist

Subject: Project update and approval of amendment to purchase order 1433 in an amount of \$28,998.00 with Greenheart Farms Inc. for the purchase of an additional 15,000 plants for the Keeler Dunes Project.

This Board report provides the District Governing Board with an update and information on the Keeler Dunes dust control project at the beginning of the fall construction season and requests approval of an amended purchase order with Greenheart Farms for purchase of 15,000 additional plants for the project.

Project Update

Work activities begin again in the Keeler Dunes dust control project on September 19, 2016. The first task was to irrigate the approximately 90,000 plants that have been planted in the project over the past two years. The plants are provided supplemental water twice a year, once in the spring and again in the fall. The fall irrigation event was finished on October 13, 2016 taking just over four weeks to complete.

The second task for the project this fall is to plant approximately 112,000 additional plants in the northern portion of the project. Most of the plants (92,000) are being grown out by Greenheart Farms Inc (Greenheart) from Arroyo Grande, CA with the remainder (20,000) coming from the Antelope Valley Resource Conservation District Nursery in Lancaster, CA. The first delivery of plants from Greenheart was made on October 11, 2016 with planting activities starting on October 12, 2016. Photos of the plants from Greenheart are provided at the end of this Board Report.

The first week of planting was conducted with a small sized crew of local workers and resulted in about 3,000 plants being installed in the northern portion of the project. In following weeks the crew will be increase in size to about 20 individuals. The full crew is expected to be able to plant approximately 15,000 plants per week. Planting activities are expected to continue until mid-December 2016. After planting activities are complete, the southern portion of the project will then be modified by the construction of bale mound clusters with work expected to start in either late December or early January.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)

November 10, 2016 – Agenda Item No. 4e – Page 1

In addition to starting the installation of new plants, an evaluation of the health and survivorship of the existing plants in the project was conducted in October 2016. The plant survey was conducted by staff from Amec Foster Wheeler as part of their contract for project management. Based on field observations, the condition of the plants within the project is highly variable with some areas doing quite well but most other areas ranging from moderately well to poor. There are many variables that could have affected the condition of the plants including: soil type (sandy versus silty or rocky soils), soil moisture, condition of the initial plant material, how well the plant was planted in the ground, sand inundation after planting, sand scouring around the plant, browsing impacts, insect infestation, etc. While the impact of many of these variables on the plant health is difficult or impossible to determine, by conducting the plant survey we will get a better idea of how well the plants are doing across the project and identify particular areas where we might consider replanting and/or management changes to improve plant success.

Purchase of Additional Plants from Greenheart Farms Inc

The District selected Greenheart through a competitive bid process in February and March 2016 for the propagation of plants for the Keeler Dunes Project for the fall 2016 construction season. Purchase Order #1433 with Greenheart for 77,000 plants was approved by the District Governing Board in April 2016. Using seed collected at the end of the 2015 growing season, Greenheart began work by conducting germination tests in May 2016 using the results to help in ensuring that they were able to grow out the number of plants that were ordered. Seeding for the main grow-out of plants began in late June 2016. Greenheart has been very successful in the plant propagation such that they have an estimated 15,000 additional plants beyond those included in the original purchase order.

District staff would like to purchase the additional plants for the project and plant them this fall. Greenheart is willing to sell the additional plants to us for the same cost per plant (\$1.79 each) as in the original purchase order. The cost of the additional plants including tax is \$28,998.00. Amending PO #1433 to include the additional plants would increase the total number of plants to 92,000 with a total cost of \$177,854.40.

Fiscal Impact

The District received \$10,000,000 from the City of Los Angeles Department of Water and Power for the Keeler Project as part of the 2013 Settlement Agreement. The cost of the original purchase order with Greenheart Farms Inc for plant propagation was taken from the Keeler Project funds. The \$28,998.00 added cost for the additional plants will be added to Purchase Order #1433 through the proposed amendment with the funds taken from the Keeler Dunes Project Budget.

BOARD ACTION

District staff recommends that the District Governing Board authorize the APCO to approve Amended Purchase Order #1433 with Greenheart Farms Inc from Arroyo Grande, California for the purchase of an additional 15,000 native shrubs for the Keeler Project. The total price for the additional plants included in the amendment including tax is \$28,998.00. The total number of plants included in Amended Purchase Order #1433 is 92,000 with a cost not to exceed \$177,854.40.

Attachments:

- Photos of plants ready for transplanting in the Keeler Dunes Project.
- Amended Purchase Order #1433 with Greenheart Farms.

Photos of young plants ready for placement in the Keeler Dunes Project

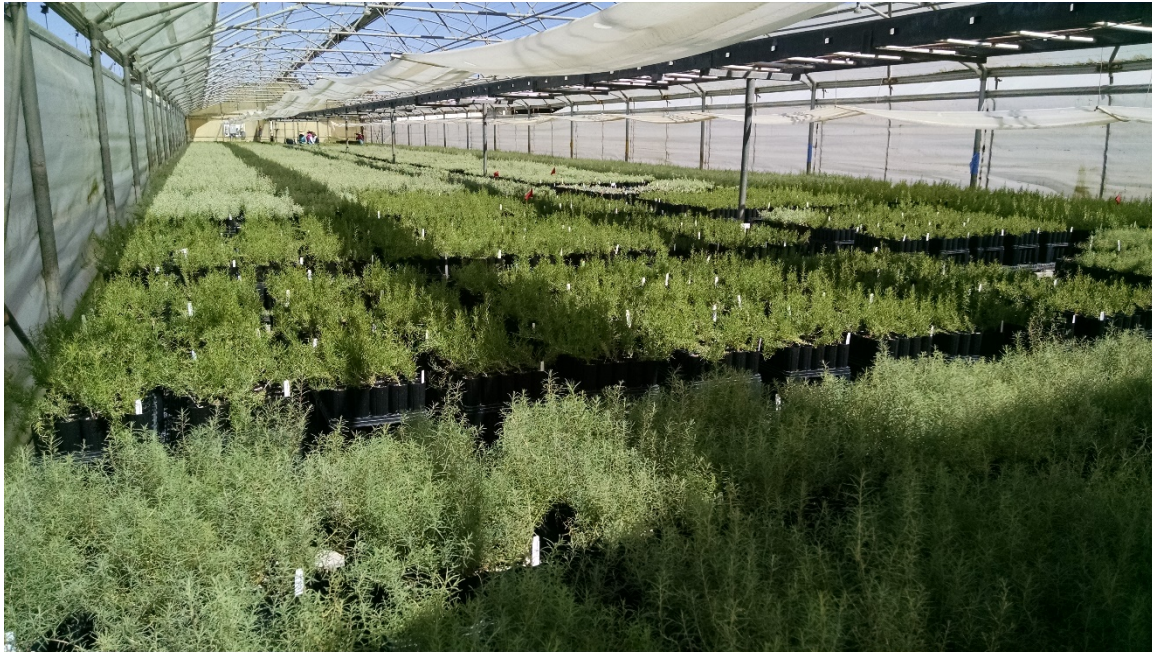


Figure 1. Plants for Keeler Dunes Project at the Greenheart nursery in Arroyo Grande, CA.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)
November 10, 2016 – Agenda Item No. 4e – Page 4



Figure 2. LEFT: *Sueda moquinii* (Inkweed) and RIGHT: *Sarcobatus vermiculata* (Greasewood) for the Keeler Dunes Project.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)
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Figure 3. LEFT: *Atriplex parryi* (Parryi Saltbush) and RIGHT: *Atriplex polycarpa* (Cattle spinach) for the Keeler Dunes Project.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)
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Figure 4. First delivery of plants at Staging Area 2 in the Keeler Dunes Project, October 11, 2016.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)
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Figure 5. First delivery of plants at Staging Area 2 in the Keeler Dunes Project, October 11, 2016.

Project Update and Approval of Amendment to Purchase Order 1433 in an Amount of \$28,998.00 with Greenheart Farms, Inc. for the Purchase of an Additional 15,000 Plants for the Keeler Dunes Project (Action)
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GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

PURCHASE ORDER #1433 **AMENDED**

SELLER: Greenheart Farms, Inc. 902 Zenon Way Arroyo Grande, CA 93420 Phone: (805) 481-2234	Bill To: Great Basin Unified APCD 157 Short Street, Bishop, CA 93514 Attention: Grace Holder Phone: Attention: (760) 872-8211 x 236 Email: Attention: gholder@gbuapcd.org	Ship To: Keeler Dunes Dust Control Project Old State Highway Keeler, CA 93530		
Purchase Order No: 1433	Date: 04/13/2016 AMENDED: 11/10/2016	Delivery Date: starting October 2016 (exact dates to be determined by project construction contractor)		
GBUAPCD Contractual Representative: Grace Holder		GBUAPCD Technical Representative: Grace Holder		
Project Name: Keeler Dunes Dust Control Project				
Prime Client Name ("CLIENT"): Jordan Marcellus, Greenheart Farms, Inc.		Payment Terms: Freight Terms: To be paid by District's construction contractor		
Ship Via: Truck (to be arranged by District's construction contractor)	FOB: N/A			
Work/Items	Unit of Measure	Quantity	Plant Price	Total Plant Price
Native shrubs – 2" by 10" container (with return of plant containers)	Per plant	77,000	\$1.79	\$137,830.00
AMENDMENT, November 2016: Native shrubs – 2" by 10" container (with return of plant containers)	Per Plant	15,000	\$1.79	\$26,850.00
<i>Plant requirements as listed below*</i>				
			Subtotal (plants):	\$137,830.00
			Subtotal of Amendment (plants)	\$26,850.00
			Tax and fees	\$11,026.40
			Taxes and Fees (for additional plants with Amendment)	\$2,148.00
			AMENDED Total not to Exceed	\$177,854.40

***Plant Requirements**

1. Plants will be in good condition
2. Plants shall be approximately 6 to 7 inches in height.
3. Plants will be provided in 2" by 10" containers.
4. Plants will have a well-developed root ball.
5. Plants in 2'x10' containers will be ready for delivery starting in October 2016.
6. Greenheart Farms, Inc. will coordinate with District's construction contractor for delivery of plants to Keeler Dunes project site.
7. The District or their designated representative has the right to make periodic inspections of the progress of the plants for the project.
8. The District will return the pots used for the project once the plants are placed in the field.
9. Plant numbers: A total of 92,000 (77,000 + 15,000) plants are included in this Purchase Order. The number of individual plants shall be approximately as follows: ATPO 48,000, ATPA 3,000, SAVE 20,000, SUMO 21,000

The number of individual plants of the four species can be adjusted, within reason, as needed, in order to provide the total number of plants required for the project.

Acknowledged: _____ (initials)
Authorized representative

Purchase Order Terms and Conditions

- 1. ACCEPTANCE AND TERMS AND CONDITIONS:** This Purchase Order No. 1433 dated 04/13/2016 and Amended on 11/10/2016 ("Order") is issued by GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT ("DISTRICT") to GREENHEART FARMS INC ("Seller"). Seller will accept this Order by the earlier to occur of: (1) DISTRICT's receipt of written acceptance by Seller, or (2) Seller's commencing to perform any services called for by this Order ("Services"). By accepting this Order, Seller agrees to comply with all of its terms and conditions, including any attachments hereto and all specifications and other documents referenced herein. This Order does not constitute acceptance by the DISTRICT of the terms and conditions of any offer to sell, any quotation, or any proposal from Seller, nor does reference in this Order to any of the same constitute a modification of any terms and conditions of this Order. ANY ACKNOWLEDGEMENT OF THIS ORDER OR OTHER DOCUMENT CONTAINING TERMS AND CONDITIONS INCONSISTENT WITH OR IN ADDITION TO THE TERMS AND CONDITIONS OF THIS ORDER IS NOT BINDING UPON THE DISTRICT UNLESS SPECIFICALLY ACCEPTED BY THE DISTRICT'S CONTRACTUAL REPRESENTATIVE IN WRITING.
- 2. IDENTIFICATION:** All invoices, packages, shipping notices, and other written documents affecting this Order shall contain the applicable Order number. A packing list shall be enclosed in each shipment pursuant to this Order, indicating the contents therein. The final invoice will not be processed for payment until all Items invoiced are received or Services performed.
- 3. SHIPPING INSTRUCTIONS:** All Items are to be shipped freight prepaid, F.O.B. destination, unless otherwise stated. Where DISTRICT has so authorized in writing, Items may be shipped F.O.B. shipping point, but Seller shall prepay all shipping charges, route the Items by the cheapest common carrier or the carrier specified, and list said charges as a separate item on Seller's invoice. Each invoice for shipping charges shall be accompanied by the original or a copy of the bill indicating that such charges have been paid. DISTRICT reserves the right to reject C.O.D. shipments. Seller shall not insure the Items for DISTRICT'S account during shipment, except upon DISTRICT's written request or where the shipping mode is parcel post. *(Condition 3 - N/A)*
- 4. SPECIAL CHARGES:** Seller shall be responsible for the payment of all charges for handling, packaging, wrapping, bags, containers, and related matters, unless DISTRICT has assumed an express obligation. *(Condition 4 - N/A)*
- 5. DELIVERY:** Time is of the essence, and this Order may be terminated if delivery is not made or Services are not performed by the Delivery Date specified above. No change in the scheduled delivery date or performance will be permitted without DISTRICT's prior written consent. No acceptance of Items or Services after the scheduled delivery date will waive DISTRICT's rights with respect to such late delivery nor shall it be deemed a waiver of future compliance with the terms hereof.
- 6. INVOICES AND PAYMENT:** DISTRICT will remit payment to Seller by mail. Invoices will clearly reference the Purchase Order Number and Project Name shown on the face of this Order. Seller's right to payment is contingent upon DISTRICT'S approval and acceptance of the Work. Payment shall not be evidence of DISTRICT'S final acceptance of that which is called for by this Order. Payment shall be subject to subsequent adjustment for shortage and allowance for articles or services rejected. Seller agrees that payments owed to it for performance under this Order may be offset by DISTRICT by amounts equal to what DISTRICT owes Seller under any other contract arrangement.
- 7. DEPOSIT:** DISTRICT MAY pay a deposit for the items in this agreement upon written acceptance of this order by the SELLER. If such a deposit is made, the DISTRICT will require a payment and/or a performance bond for the amount of the deposit.
- 8. PRICES AND TAXES:** If price is not stated on this Order, it is agreed that the Items and/or Services shall be billed at the price last quoted, or paid by a customer of Seller, or the prevailing market price, whichever is lower. Seller shall pay all taxes and fees that may arise out of its sale of the Items and/or Services to DISTRICT. (See bid Summary - page 9)
- 9. TERMINATION: TIME IS OF THE ESSENCE OF THIS ORDER. (A) FOR DEFAULT:** DISTRICT may, by written notice of default to Seller, terminate this Order in whole or in part if Seller fails to perform any part of this Order within the time specified herein or in any changes to or extensions of this Order. Upon such termination, DISTRICT may procure, upon such terms and in such manner as DISTRICT deems appropriate, Items or Services similar to those canceled, and the Seller shall be liable to DISTRICT for any excess costs of such Items and/or Services. **(B) FOR CONVENIENCE:** DISTRICT may, by written notice to Seller, terminate this Order in whole or in part for any reason. Upon such termination, DISTRICT and Seller shall negotiate reasonable termination charges. After receipt of notice of such termination, Seller shall transfer title and deliver to DISTRICT all Items and Services satisfactorily completed and in process as directed by DISTRICT. Seller warrants that it is selling the Items and Services herein ordered at its most favorable prices. Seller shall continue performance of this Order to the extent not terminated under the provisions of this Section 9. The rights and remedies provided in this Section 9. shall not be exclusive and are in addition to any other rights and remedies provided DISTRICT hereunder or by law or in equity.
- 10. INSPECTION AND REJECTION:** DISTRICT (or their designated representative) shall have the right, but not the obligation, to inspect the plants during the period of plant growth prior to acceptance. Such inspection may include review for progress with DISTRICT's applicable plant condition requirements. If any inspection is made by DISTRICT on the premises of Seller, without additional charge, Seller shall provide or arrange for all reasonable facilities and assistance for the safety and convenience of DISTRICT's inspectors in the

performance of their duties. Rejection of Items and/or Services shall be made as promptly as practicable, but any such failure to inspect or reject shall neither relieve Seller from responsibility for such Items and/or Services that are not in accordance with the requirements of this Order, nor impose any liability on DISTRICT. Unless otherwise provided herein, final inspection shall be made in October 2014 prior to acceptance of the plants for delivery to the project site. The inspection and acceptance by DISTRICT of any Items does not relieve the Seller from responsibility regarding defects or other failures to meet Order requirements or warranties which may be discovered subsequently, including latent defects.

11. WARRANTIES: (A) Seller warrants: (1) all Items and Services furnished to be free of any claim of any nature by any third person and (2) all Items/Plants provided hereunder will be fit for the particular purpose intended and as set forth in this Order. Seller shall be responsible to re-perform any Services or replace any Items that do not conform to any of the foregoing warranties at no cost to DISTRICT or DISTRICT's client, and will reimburse DISTRICT for all reasonable costs associated with or arising from any defects in or failure of the Items and/or Services provided under this Order to comply with these warranties.

12. GENERAL INDEMNITY: Seller agrees to defend, indemnify and hold harmless DISTRICT and its client benefiting from this Order, and their respective employees, officers, directors, agents and subcontractors, from any and all demands, claims, or suits by any and all persons or entities due to or arising out of the delivery and performance, or failure to perform, of any Items and/or Services included in this Order, or due to Seller's failure to satisfy any warranties, express or implied, given by Seller in providing the Items and/or Services purchased with this Order and/or any changes or extensions of this Order.

13. CHANGES: DISTRICT may at any time make changes, within the general scope of this Order, in any one or more of the following without limitation: (1) drawings, designs, or specification of the Items or Services to be furnished; (2) method of shipment or packing; (3) time and/or place of delivery and (4) quantity of Items or Services ordered. If such change causes an increase or decrease in the price of this Order or the time required by Seller to perform under this Order, an equitable adjustment shall be made, and the Order modified in writing accordingly. Any claim for adjustment by the Seller hereunder must be asserted in writing within seven (7) days from the date the change is ordered. Any change in this Order shall be binding upon DISTRICT only when confirmed in writing by the Contractual Representative of DISTRICT.

14. NON-TRANSFERABILITY: Unless DISTRICT has provided prior written consent, any partial or complete assignment of right(s) or delegation of obligation(s) by Seller, including subcontracting to a third party, shall be void.

15. COMPLIANCE WITH LAWS: Seller agrees to comply with the applicable provisions of all federal, state or local laws and ordinances and all lawful orders, rules and regulations issued thereunder. Seller shall also comply with any provisions, representations, agreements or contractual clauses required to be included or incorporated by reference or by operation of law in the contract resulting from acceptance of this Order, including, without limitation, those dealing with Equal Opportunity (41 CFR 60-1.4 et seq.), and the related Acts and Executive orders as now or later codified which are appropriate to the Items and/or Services provided and attached and incorporated in this Order by this reference. Further, Seller warrants that each chemical substance constituting or contained in any Items sold or otherwise transferred to DISTRICT hereunder is included in the list of chemical substances compiled, published and amended periodically by the Administrator of the Environmental Protection Agency pursuant to the Toxic Substances Control Act (15 U.S.C. §2601 et seq.), as amended. Seller certifies and guarantees that all such Item(s) supplied hereunder are in compliance with applicable sections of the Federal Hazardous Substances Act (15 U.S.C. § 2051 et seq.) as amended, and the Consumer Product Safety Act (15 U.S.C. § 1261 et seq.) as amended, and lawful standards and regulations issued thereunder. In accepting this Order, Seller represents that the Items and/or Services to be furnished hereunder were or will be produced or performed in compliance with the requirements of the Fair Labor Standards Acts of 1938, as amended. Seller further warrants that the Items sold and/or Services to be furnished hereunder shall conform to the applicable standards and/or regulations promulgated by the U.S. Department of Labor under the Occupational Safety and Health Act of 1970 as amended (29 U.S.C. 651, PL91-596), and Occupational Safety and Health Administrations Standard 29 CFR 1910-1200, Hazard Communication.

16. NAME REFERENCES AND INFORMATION: Seller shall not in any manner publish the fact that it has furnished or contracted to furnish DISTRICT, or DISTRICT's client, if any, the Items and/or Services herein mentioned or use the name or trademarks or service marks of DISTRICT (registered or unregistered) or its client, if any, in Seller's advertising or other publications. Seller shall not disclose any information relating to this Order or any of DISTRICT's or its client's information received in any manner with respect to this Order to any person not authorized in advance by DISTRICT in writing to receive it. Seller shall use the information supplied by DISTRICT only to furnish the Services and/or Items covered by this Order and for no other purpose; provided, that Seller may use such information, including technical data, in the supply of Items and/or Services to the Federal Government to the extent that the Federal Government has the right to authorize such use under a prime contract with Seller. Upon completion or termination of this Order, all information supplied by DISTRICT will be returned to DISTRICT. Seller agrees that all copyrights on all original written information and material submitted to DISTRICT as a result of this Order will become, on payment, the property of DISTRICT, and that DISTRICT will be the owner of any copyright in such material. Seller may retain one confidential copy for its files. All information disclosed by Seller hereunder to DISTRICT is free from any restriction, unless clearly marked as "confidential" and so agreed by the parties in writing prior to disclosure.

17. RIGHTS, REMEDIES, CONSTRUCTION, AND CLIENT DISPUTES: As of the effective date, this Order and all attachments hereto constitute the entire Order between the parties relating to the sale and purchase of the Items and/or Services, and incorporate all

negotiations, commitments and writings with respect to this Order. This Order may not be released, discharged, abandoned, changed, renewed, extended or modified in any manner, except by an instrument in writing signed by an Authorized Representative of DISTRICT. It is agreed that the failure by DISTRICT at any time, or from time to time, to require the performance by Seller of any term(s) and/or condition(s) of this Order shall not constitute a waiver by DISTRICT of the particular term(s) and condition(s) and shall not affect or impair said term(s) or condition(s) in any way. Each of the provisions of this Order shall apply to the full extent permitted by law, and the invalidity in whole or in part of any provision shall not affect the remainder of such provision nor any other provision(s). Any dispute between DISTRICT and Seller arising hereunder shall first be resolved by taking the following steps where a successive step is taken if the issue is not resolved at the preceding step: 1) by the technical and contractual personnel for each party, 2) by executive management of each party, 3) by mediation or 4) through a court system of competent jurisdiction. Notwithstanding the dispute, Seller shall continue to perform its obligations, unless DISTRICT terminates or otherwise suspends performance hereunder.

18. PATENTS: Seller warrants that the sale or use of the Item(s) and/or Service(s) covered by this Order will not infringe, contribute to the infringement or induce infringement of any patents or copyrights, either in the U.S.A. or in other countries. Seller covenants to defend, indemnify and hold harmless DISTRICT and its clients from every lawsuit for any such alleged or actual infringement or inducement to infringe which may be brought against DISTRICT, its client, or other parties in privity with any of them, and to pay all defense costs and fees of counsel which DISTRICT incurs and all damages, profits, royalties or other recoveries in every such lawsuit.

19. QUALITY: Seller shall comply with quality assurance requirements provided with this Order, whether originating with DISTRICT, DISTRICT's client or both.

20. ON-SITE SERVICES AND SAFETY: If Seller is to install any Items or perform any Services on DISTRICT's or its client's property, then Seller shall conform strictly to all of DISTRICT's or its client's site rules and regulations, as well as all applicable federal, state and local regulations affecting safety. It shall be Seller's obligation to obtain a copy of such site rules from DISTRICT or DISTRICT's client prior to the commencement of any such installation or performance. *(Condition 19 - N/A)*

21. INSURANCE: Seller and all of its subcontractors shall procure and maintain the following insurance: commercial general liability with limits of \$1,000,000 per claim; automobile liability with a combined single limit of \$1,000,000; workers' compensation as statutorily required; and employers liability with limits of \$500,000 per occurrence. DISTRICT will be included as additional insured on the commercial general liability. The insurance policies described above shall provide for a waiver of subrogation rights in favor of DISTRICT and its client. A Certificate of Insurance shall be provided to the DISTRICT within 30 days of bid award.

22. AUTHORIZED REPRESENTATIVES: DISTRICT will designate on each Order, or change to any Order, the name or names of those individuals who may act for DISTRICT as the "Technical Representative" as described herein. Such Technical Representative shall have full authority to act on behalf of DISTRICT for all purposes reasonably necessary to complete any purchase(s) included in this Order. DISTRICT's Technical Representative is not authorized to change the Services or goods ordered, Agreement Amount, Period of Performance, or terms and conditions of this Agreement. No changes to this Agreement shall be binding upon DISTRICT unless incorporated in a written modification to this Agreement and signed by DISTRICT's Contractual Representative.

23. MISCELLANEOUS: Any additional requirements imposed on DISTRICT which may reasonably pertain to the Items and/or Services provided by Seller are incorporated herein by reference to the extent that a copy of such requirements is affixed as an attachment hereto.

24. EXHIBITS: The following Exhibits, are attached and made a part of this Agreement: NONE

Amended Purchase Order No 1433	
Great Basin Unified Air Pollution Control District	Seller: Greenheart Farms, Inc.
157 Short Street, Suite 6 Bishop, CA 93514	902 Zenon Way Arroyo Grande, CA 93420
Signature:	Signature of Authorized Representative:
Name/Title:	Name/Title:
Date:	Date:



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Nik Barbieri, Director of Technical Services

Subject: Purchase Order with Draganfly Innovations Inc.

Summary:

District staff currently operates two Draganfly UAV's on the Owens Playa to monitor different types of control areas on the lake, as well as survey vegetation growth, and track changes on the Keeler Dunes.

Background:

Over the last year District staff has been using a Draganflyer X4P, and a Commander UAV to monitor TwB² areas as well as gather information on the Keeler Dunes, monitor vegetation trends in Cultural Resource Areas (CRA), monitor Dynamic Water Management (DWM) areas, as well as monitor 7A Transition areas and Brine BACM. Currently these areas cover over 19 square miles of the Owens Playa. These UAVs have made it possible to streamline monitoring of these areas and save valuable staff time. Due to the variety of projects and growing list of uses for UAVs in the District, it has been determined that another (3rd) UAV would be useful for staff to have on hand. The newer Commander models have a flight time of up to 45 minutes. This additional flight time has been very helpful in monitoring large areas in relatively few flights.

Conclusion:

Staff has determined that an additional UAV will help staff be able to use time wisely and gather important information. A third UAV would also be valuable if one is down for repair. All monitoring activities could continue without pause.

Fiscal Impact: – The funds for this purchase were budgeted for and are available in District's 2016-2017 SB270 Budget.

Board Action:

Approve PO with Draganfly Innovations Inc. for the amount not to exceed \$18,561.61 for the purchase of an additional Draganfly Commander airframe, and other maintenance items.

Approve Purchase Order with Draganfly Innovations, Inc.
for the Total Amount not to Exceed \$18,561.61 (Action)
November 10, 2016 - Agenda Item No. 4f - Page 1

GREAT BASIN

PURCHASE ORDER

Unified Air Pollution Control District Purchase Order No.

157 Short Street

This number must appear on all related correspondence & invoices.

Bishop, California 93514

760-872-8211 Fax: 760-872-6109

Federal Tax ID No. 43-2106258

Vendor:

Name

Company Draganfly Innovations Inc.

Address 2108 St. George Avenue

City/State/Zip Saskatoon, Sasjatchewan, S7M OK7, Canada

Phone 1(800) 979-9794 Fax: 1(306) 955-9906

Acct. No. 77632

Reference 5254

Ship to:

Name Nik Barbieri

Company Great Basin Unified Air Poll. Ctrl. Dist.

Address 157 Short Street Ste 6

City / State / Zip Bishop, CA 93514

Phone (760) 784-8082 Fax: (760) 876-8174

Ship Via

Terms: Prepay - Che

P.O. Date: 13-Nov-16

Date Required: ASAP

Quantity	Units	Description	Unit Price	TOTAL
4	Units	DF-BATT-6750-4S Draganflyer 6750mAh Battery	\$499.95	\$1,999.80
1	Unit	DF-CMDR-AIRFR Draganflyer Comander Airframe	\$13,495.50	\$13,495.50
1	Unit	DF-XP1675-CFPR Draganflyer 16" carbon props (pair)	\$99.95	\$99.95
1	Unit	DF-CMDR-FOAM Draganflyer Comander foam insert	\$269.99	\$269.99
2	Units	DF-BATT-5400-4S Draganflyer X4-P battery pack	\$349.95	\$699.90
1	Unit	DF-X8-UPPERCA XP-4 upper canopy	\$149.00	\$149.00
1	Unit	DF-SOFTPACK Draganflyer softpack case	\$379.95	\$379.95
SubTotal				\$17,094.09
Shipping & Handling (estimate)				\$99.99
Taxes: Rate: 8.00%				\$1,367.53
TOTAL*				\$18,561.61

Ordered By: Nik Barbieri

Approved: _____

Date: _____

* Purchase Orders totaling \$500.00 or more must first be:

- (1) Submitted to the Projects Manager (original + 1 copy); and
- (2) Approved and signed by the APCO prior to ordering.

BUDGET: Task # or budget category:

SB 270 83% II.C.-5 Scientific

SB 270 17% II.I.-4 Maintenance

Geotherm _____ Monitoring

_____ Reviewed for PBC Policy (P. Kiddoo)

_____ Budget Log (S. Cash)

_____ Fiscal Services (Gilpin)

00 Purchase Order (Excel) 1/29/99

0



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Phillip L. Kiddoo, Air Pollution Control Officer

Subject: Approval to Transfer Funds from Notice of Violation #461 in the
Amount of \$1,199,707 to the Keeler Dunes Dust Control Project Budget

Summary:

On July 8, 2016 the Great Basin Unified Air Pollution Control District (District) issued Notice of Violation #461 (NOV #461) to the City of Los Angeles Department of Water and Power (City) in violation of Board Order #160413-01 for failure to install, operate and maintain fully-compliant BACM in Phase 7a and Phase 7a transition areas by December 31, 2015. NOV #461 required the City to pay daily offset payments as agreed to in Stipulated Order of Abatement (SOA) #110317-01. Based on 182 days of non-compliance for the period from January 1, 2016 through June 30, 2016, the City was ordered to pay \$1,199,707 by October 6, 2016. The District received the full amount of the offset payment on October 4, 2016.

As set forth in SOA #110317-01, eighty-five percent (85%) of the payment was deposited into the District's Owens Lake Excess Air Pollution Offset Fund to be used for Clean Air Projects within the District with preference given to projects in the Owens Valley Planning Area (OVPA) and fifteen percent (15%) deposited into the District's regular budget account for administrative costs. "Clean Air Projects" are defined as improvements, replacements, or programs that directly or indirectly result in a reduction in air pollution emissions. Monies shall not be used to fund projects that the City is required to undertake or implement. The District Governing Board has the sole authority and discretion regarding project selection and approval, but will consider any project recommendations made by the City.

The control strategy for the 2016 OVPA State Implementation Plan (SIP) includes the Keeler Dunes Project which was funded by the City and implemented by the District pursuant to a settlement agreement between both parties in 2013. This project consists of straw bale and native vegetation dust control measures on 194 acres to provide the necessary control efficiency to meet the National Ambient Air Quality Standard and the California Ambient Air Quality Standard for PM10 in the communities of Swansea and Keeler. The settlement agreement provides a release of the City's liability to the District under the District's state law authority for the subject areas. As such, the Keeler Dunes Dust Control Project is a District project and funds from NOV #461 may be used to further implement controls associated with this project. Upon submission of payment, the City requested the District use the entire offset payment to supplement the District's Keeler Dunes Dust Mitigation Project. District staff recommends use of these funds

Approval to Transfer Funds from Notice of Violation #461 in the
Amount of \$1,199,707 to the Keeler Dunes Dust Control Project Budget (Action)
November 10, 2016 – Agenda Item No. 5 – Page 1

for additional Keeler Dunes construction, operation, maintenance, management and monitoring directly related to controlling dust emission at the Keeler Dunes.

Fiscal Impact:

At the beginning of FY 16-17, the Keeler Dunes Dust Control Project budget balance was \$2,524,039. Transferring funds from NOV #461 in the amount of \$1,199,707 will bring the budget balance to \$3,723,746.

Board Action:

Staff recommends the Governing Board approve the transfer of funds from NOV #461 in the amount of \$1,199,707 (one million one hundred ninety-nine thousand seven hundred and seven dollars), comprised of \$1,019,751 (85%) from the Owens Lake Excess Air Pollution Offset Fund Clean Air Projects budget and \$179,956 (15%) from the District's regular budget, to the Keeler Dunes Dust Control Project budget.

Attachments:

1. July 8, 2016 - District Correspondence, Notice of Violation for Failure to Install and Operate BACM in Phase 7a Areas and Notice to Comply for Failure to Submit Quarterly Reports
2. July 12, 2016 - City Correspondence, Notice of Violation for Failure to Install and Operate BACM in Phase 7a Areas and Notice to Comply for Failure to Submit Quarterly Reports
3. July 15, 2016 - District Correspondence, Notice of Violation #461
4. July 18, 2016 - City Correspondence, Owens Lake Dust Mitigation Program - Phase 7a Quarterly Progress Reports for Activities Completed Through June 30, 2016
5. July 22, 2016 - City Correspondence, July 8, 2016, Notice of Violation No. 461
6. August 3, 2016 – District Correspondence, NOV #461- Response to City's Comments
7. October 3, 2016 - City Correspondence, Great Basin Unified Air Pollution Control District's Notice of Violation No. 461 Related to the Owens Lake Dust Mitigation Program - Phase 7a Project
8. October 6, 2016 - City Correspondence, Great Basin Unified Air Pollution Control District's Notice of Violation No. 461 Related to the Owens Lake Dust Mitigation Program - Phase 7a Project
9. October 11, 2016 – District Correspondence, Notice of Violation #461 and Notice to Comply #1113



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
760-872-8211 Fax: 760-872-6109

July 8, 2016

Mr. Richard Harasick
Director of Water Operations
Los Angeles Department of Water & Power
111 N. Hope Street
Los Angeles, California 90012

CERTIFIED MAIL: 7011 3500 0002 0883 5801

RE: Notice of Violation for Failure to Install and Operate BACM in Phase 7a Areas and Notice to Comply for Failure to Submit Quarterly Reports

Dear Mr. Harasick:

The enclosed Notice of Violation (NOV #461) is issued to the City of Los Angeles (City) for failure to install, operate and maintain fully-compliant BACM in the Phase 7a and Phase 7a transition areas in violation of Board Order #160413-01. Compliance checks of shallow flood wetness cover in Phase 7a project areas at Owens Lake show that several areas have not reliably met the wetness cover requirements for BACM for the period from January 1, 2016 through June 30, 2016. Board Order #160413-01 (para. 1.B.ii) and Board Order #130916-01 (para. A.1.a) require the City to install fully-compliant BACM in the Phase 7a areas and transition areas by December 31, 2015, except for areas controlled by managed vegetation that have until December 31, 2017. Phase 7a areas that failed to demonstrate fully-compliant shallow flood BACM include: T1A-4, T37-2, and transition areas T1A-2a (North) and T1A-2a (South).

The attached shallow flood wetness cover summary shows that except for periods following precipitation events, these Phase 7a project areas have not met the 72% wetness cover targets. The City did not operate the shallow flood areas in a manner that reliably met the required wetness cover for these areas and did not install fully-compliant shallow flood BACM.

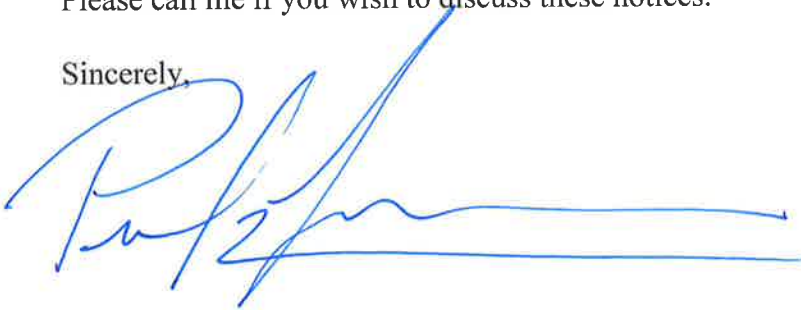
The City is ordered to submit a compliance plan to the District within 90 days (October 6, 2016) to describe the steps it will undertake and a detailed schedule for how it will attain compliance with these requirements. The District expects the City to make all necessary infrastructure and/or operational improvements to these shallow flood areas to reliably meet the 72% wetness cover requirement by the commencement of the 2016-17 dust year on October 16, 2016.

Due to its failure to install fully-compliant BACM in the Phase 7a areas and transition areas by the December 31, 2015 deadline, the City is required to pay daily offset payments as agreed to in Stipulated Order of Abatement (SOA) #110317-01 (para. 11). Based on 182 days of non-compliance for the period from January 1, 2016 through June 30, 2016 and an offset payment rate of \$6,591.80 per day, this order to pay is issued to the City for \$1,199,707. In accordance with SOA #110317-01 (para. 12) the City must pay this amount to the Great Basin Unified Air Pollution Control District within 90 days of the issuance of this notice (October 6, 2016).

The District also issues the enclosed Notice to Comply (NTC #1113) to the City to submit quarterly reports for the Phase 7a areas as required in SOA #110317-01 (para. 9). The district has not received quarterly reports for the third and fourth quarters of 2015 and the first quarter of 2016. The second quarter report for 2016 will soon be due on July 30, 2016. These reports are due 30 days after each calendar quarter until all Phase 7a areas, including managed vegetation areas, are in full compliance. The City is ordered to submit the delinquent quarterly reports within 30 days (August 7, 2016) and to timely submit future reports.

Please call me if you wish to discuss these notices.

Sincerely,



Phillip L. Kiddoo
Air Pollution Control Officer

Attachment – Shallow Flood Wetness Cover Summary for Failed Phase 7a Project Areas

Enclosures:

NOV #461
NTC #1113

cc: (email only)

Jim Yannotta, LADWP
Julie Riley, LADWP
Milad Taghavi, LADWP
Jennifer Wong, LADWP
Ray Ramirez, LADWP
Duane Ono, GBUAPCD
Grace Holder, GBUAPCD
Nik Barbieri, GBUAPCD
Chris Howard, GBUAPCD
Kim Mitchell, GBUAPCD

**Phase 7a Project Areas that Failed to Meet the
Shallow Flood 72% Wetness Cover Requirement
January 1, 2016 – June 30, 2016**

				Phase 7a - Failed Areas Percent Wetness Cover			
Satellite Image Date	Land Sat Satellite	Cloudy	Report Produced	T1A-2a (North)	T1A-2a (South)	T1A-4	T37-2
1/6/2016	7	Yes	No	ND	ND	ND	ND
1/14/2016	8	Half	Yes	ND	ND	ND	ND
1/22/2016	7	Half	Yes	ND	ND	ND	82.9% ^P
1/30/2016	8	Yes	No	ND	ND	ND	ND
2/7/2016	7	No	Yes	84.7% ^P	72.3% ^P	37.9%	71.6% ^P
2/15/2016	8	Yes	No	ND	ND	ND	ND
2/23/2016	7	No	Yes	50.4%	25.4%	39.7%	73.2% ^P
3/2/2016	8	No	Yes	65.5%	64.5%	42.4%	54.5%
3/10/2016	7	No	Yes	54.1%	22.6%	39.7%	75.1% ^P
3/18/2016	8	No	Yes	40.3%	28.2%	41.1%	74.0% ^P
3/26/2016	7	No	Yes	19.0%	11.3%	36.1%	66.3%
4/3/2016	8	No	Yes	17.3%	4.8%	41.8%	64.2%
4/11/2016	7	Yes	No	ND	ND	ND	ND
4/19/2016	8	Half	Yes	ND	ND	57.7%	64.7%
4/27/2016	7	Part	Yes	17.2%	4.0%	39.0%	66.8%
5/5/2016	8	Yes	No	ND	ND	ND	ND
5/13/2016	7	No	Yes	14.3%	5.0%	33.7%	55.9%
5/21/2016	8	No	Yes	20.9%	3.2%	34.7%	59.3%
5/29/2016	7	Half	Yes	ND	ND	ND	54.5%
6/6/2016	8	No	Yes	25.9%	3.2%	57.2%	62.2%
6/14/2016	7	No	Yes	73.3% ^P	16.1%	51.0%	65.4%
6/22/2016	8	No	Yes	41.0%	11.3%	53.0%	63.9%
6/30/2016	7	No	Yes	19.0%	2.5%	51.7%	50.3%
Area Size (sq. mi.)				0.05	0.04	0.96	0.43

P – Compliant wet cover attributed to precipitation events.

ND – No data due to cloud cover over the entire lake bed or the target area.

GREAT BASIN AIR POLLUTION CONTROL DISTRICT
INYO, MONO, AND ALPINE COUNTIES
157 Short St., Suite 6 • Bishop, Ca. 93514 • Tele: 872-8211

NOTICE OF VIOLATION

461

DATE: July 8, 2016
NAME: Los Angeles Department of Water and Power TEL: 213-367-1001
ADDRESS: 111 North Hope Street CITY: Los Angeles, CA 90012
RE PREMISES OR OPERATIONS AT: Owens Lake, Inyo County, CA

YOU ARE HEREBY NOTIFIED THAT A VIOLATION OF THE CALIFORNIA HEALTH AND SAFETY CODE SECTION(S) 42316 AND/OR GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT RULES AND REGULATIONS, RULE(S) B.O. 160413-01 and 130916-01 HAVE BEEN COMMITTED. SUCH VIOLATIONS MAY BE PUNISHED AS MISDEMEANORS PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 42400, OR CIVIL PENALTIES MAY BE IMPOSED PURSUANT TO CALIFORNIA HEALTH AND SAFETY CODE SECTION 42402.

Failure to install, operate and maintain fully-compliant Best Available Control Measures (BACM) in Phase Ia and Phase Ia transition areas by December 31, 2015.

Arrival: Start January 1, 2016 Departure: End June 30, 2016

Point (s) of Observation: Satellite imagery.

Weather
Sky: —

Wind From: —

At Approximately: —

MPI

Source emitting visible discharge at end of observation: Yes ☐ No ☐

Emission from:

Basic ☐ Control ☐ Open Fire ☐

APCD Permit (s): Orders

160413-01 and 130916-01

Served To: Richard Harasick

Director of Water Operations

Title: Air Pollution Control Officer

Date Served:

Visible Emissions Observed				
Start	Stop	Min	R/%	Description
<u>N/A</u>				

Total Time of Violation:

Minutes

Notice Issued By: [Signature]

Notice Served:

At Time of Observation ☐

Via Mail ☒

Reg. No. 5801

ADVISE THE AIR POLLUTION CONTROL OFFICE IN WRITING
BY October 6, 2016 OF CORRECTIVE ACTION
YOU HAVE TAKEN TO PREVENT CONTINUED OR RECURRENT VIOLATION. YOUR
RESPONSE DOES NOT PRECLUDE THE POSSIBILITY OF FURTHER LEGAL ACTION.



**GREAT BASIN UNIFIED
AIR POLLUTION CONTROL DISTRICT**

157 Short Street * Bishop, California 93514
Tel (760) 872-8211 * Fax (760) 872-6109

NOTICE TO COMPLY

Company: Los Angeles Department of Water and Power Date: July 8, 2016
Facility: Owens Lake, Inyo County, CA PTO/ATC No: CAISC 42316
Address: 111 North Hope Street
City: Los Angeles State: CA Zip Code: 90012
Contact: Richard Harasick Phone No: (213) 367-1001
The facility's operation has been found to be out of compliance with District Rules and Regulations, and/or H&S Code §: Stipulated Order of Abatement (SOA) 110317-01.
Immediately correct the following violation(s) that have been observed: Failure to submit Phase 7a quarterly progress reports for third and fourth quarter of 2015 and first quarter 2016.
Recommended corrective action: Submission of Phase 7a quarterly progress reports.
Correction due date: August 7, 2016. If this corrective action is completed by the due date, no further action will be taken on the violation(s) cited above. Failure to complete the corrective action by the due date may result in further enforcement action by the District. If corrective action is not possible by the due date, an extension or variance may be requested by calling the District at (760) 872-8211. To appeal the issuance of this Notice to Comply, send a letter of appeal to the APCO within 10 days of receipt of this notice. Specify in detail why you believe these allegations are incorrect, and attach a copy of the Notice to Comply and all supporting documentation.

Received by: _____ Date: _____

Signing indicates receipt of this notice and is not an admission of guilt.

District Inspector: [Signature] APCO Date: 20160708

Please complete this section after the corrective action is complete, and return the yellow copy to the District to assure your correction is properly credited.

Corrective action: _____ Date completed: _____

(Continue on a separate sheet of paper if more space is needed)

I certify that the necessary correction has been implemented within the time allowed by this Notice to Comply

Signature: _____ Title: _____
Printed Name: _____ Date: _____

THANK YOU FOR YOUR TIMELY ATTENTION TO THIS MATTER

Clean Air is Everybody's Business

White - District copy
Yellow - Facility complete & return to District
Pink - Facility keep

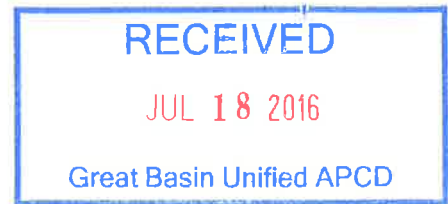
1113

ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, *Secretary*

MARCIE L. EDWARDS
General Manager

July 12, 2016



Mr. Phillip L. Kiddoo
Air Pollution Control Officer
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, CA 93514-3537

Dear Mr. Kiddoo:

Subject: Notice of Violation for Failure to Install and Operate BACM in Phase 7a Areas
and Notice to Comply for Failure to Submit Quarterly Reports

The Los Angeles Department of Water and Power (LADWP) has received your correspondence, dated July 8, 2016, entitled "Notice of Violation for Failure to Install and Operate BACM in Phase 7a Areas and Notice to Comply for Failure to Submit Quarterly Reports."

LADWP is working on a comprehensive response to your allegations and expect to send it to you shortly. In order to assist us in responding, please provide all evidence the Great Basin Unified Air Pollution Control District (District) relies upon for issuing Notice of Violation No. 461 and alleging that the City of Los Angeles violated Board Order No. 160413-01 on each of the 182 days between January 1, 2016 and June 30, 2016.

Thank you for your cooperation.

Sincerely,



Richard F. Harasick
Director of Water Operations



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

760-872-8211 Fax: 760-872-6109

July 15, 2016

Mr. Richard Harasick
Director of Water Operations
Los Angeles Department of Water & Power
111 N. Hope Street
Los Angeles, California 90012

RE: Notice of Violation # 461

Dear Mr. Harasick:

This letter and its enclosures respond to your letter dated July 12, 2016 regarding Notice of Violation (NOV) #461 issued to the City of Los Angeles (City) for its failure to install fully-compliant BACM in the Phase 7a and Phase 7a transition areas in violation of Board Orders #160413-01 and #130910-01. Enclosed is a USB drive containing information regarding this violation including the following:

- Seventeen wetness cover reports for the six-month period from January – June 2016. A compilation of emails is also included showing that these reports were sent to the City and that the District repeatedly informed the City about shallow flood areas that failed to comply with BACM wetness cover requirements.
- Spreadsheets with summary tables of 1) the wetness cover in all shallow flood areas that failed to meet the BACM wetness cover requirements in the 2015-16 dust season, and 2) non-compliant Phase 7a project areas with notes on compliant wetness cover measurements that were attributed to precipitation events.
- Data plots and tabular summaries for shallow flood areas showing that areas with sprinklers (which includes all Phase 7a project areas) have largely failed to meet the BACM wetness cover requirement.

The requested information can also be downloaded at this [link](#). Please let me know if you have any questions.

Sincerely,

Phillip L. Kiddoo
Air Pollution Control Officer

Enclosure – USB Drive containing the following files

20160114 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160114 LS8 Shallow Flood Compliance.pdf
20160207 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160207 LS7 Shallow Flood Compliance.pdf
20160223 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160223 LS7 Shallow Flood Compliance.pdf
20160302 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160302 LS8 Shallow Flood Compliance.pdf
20160310 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160310 LS7 Shallow Flood Compliance.pdf
20160318 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160318 LS8 Shallow Flood Compliance.pdf
20160318v2 LS8 Shallow Flood Compliance 20160429.pdf
20160326 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160326 LS7 Shallow Flood Compliance.pdf
20160403 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160403 LS8 Shallow Flood Compliance.pdf
20160419 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160419 LS8 Shallow Flood Compliance.pdf
20160419v2 LS8 Shallow Flood Compliance 20160504.pdf
20160427 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160427 LS8 Shallow Flood Compliance.pdf
20160513 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160513 LS7 Shallow Flood Compliance.pdf
20160521 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160521 LS8 Shallow Flood Compliance.pdf
20160529 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160529 LS7 Shallow Flood Compliance.pdf
20160606 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160606 LS8 Shallow Flood Compliance.pdf
20160614 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160614 LS7 Shallow Flood Compliance.pdf
20160622 LS8 Shallow Flood Compliance Overview 11x17.pdf
20160622 LS8 Shallow Flood Compliance.pdf
20160630 LS7 Shallow Flood Compliance Overview 11x17.pdf
20160630 LS7 Shallow Flood Compliance.pdf
Compliance Report Transmittal Emails (01-14-2016 – 07-06-2016).pdf
NOV461-RequestedInformation20160715.pdf
Non Compliant Shallow Flood Areas 20160630.xlsx
Phase 7a Non Compliant Shallow Flood Areas 20160630updated.xlsx
Shallow Flood Compliance Results_20160630.pdf



ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, *Secretary*

MARCIE L. EDWARDS
General Manager

July 18, 2016



Mr. Phillip L. Kiddoo
Air Pollution Control Officer
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, California 93514-3537

Dear Mr. Kiddoo:

Subject: Owens Lake Dust Mitigation Program - Phase 7a
Quarterly Progress Reports for Activities Completed Through June 30, 2016

In response to Great Basin Unified Air Pollution Control District's (GBUAPCD) Notice to Comply No. 1113, dated July 8, 2016, requiring the Los Angeles Department of Water and Power to submit quarterly reports for the Phase 7a areas, as required in Stipulated Order for Abatement Board Order No. 110317-01, enclosed are the Quarterly Reports for the third and fourth quarters of 2015, and the first and second quarters of 2016.

Please do not hesitate to contact me at (213) 367-1001 should you have any questions.

Sincerely,

Richard F. Harasick
Director of Water Operations

JV:ar

Enclosure

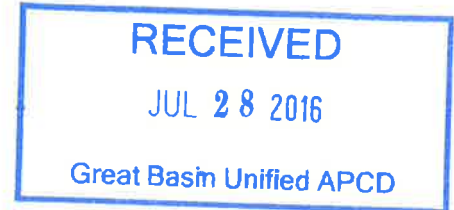
c: Mr. Duane Ono, GBUAPCD
Ms. Grace Holder, GBUAPCD
Mr. Nik Barbieri, GBUAPCD
Mr. Chris Howard, GBUAPCD
Ms. Kim Mitchell, GBUAPCD

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General Manager

July 22, 2016



Mr. Phillip L. Kiddoo
Air Pollution Control Officer
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, California 93514-3537

Dear Mr. Kiddoo:

Subject: July 8, 2016, Notice of Violation No. 461

On behalf of the City of Los Angeles (City) Department of Water and Power (LADWP), I am shocked and dismayed at the Great Basin Unified Air Pollution Control District's (District) demand for more than \$1 million of ratepayer funds. The District's Notice of Violation (NOV), issued on July 8, 2016, is apparent punishment for the failure of the District's satellite imagery technology to recognize that the sprinkler irrigated areas of the Phase 7A dust control project have adequately mitigated dust emissions during the first half of 2016, and *does not allege any air quality violation*. Both LADWP and the District have fully acknowledged that newly-constructed dust control areas were operational, constantly wet and/or saturated, and were not emitting dust. Any alleged violation is based on unverified remote sensing data, not supported by the facts on the ground, and, more importantly, not based on any air quality violations.

LADWP recognizes that the District has traditionally relied upon a variety of tools to prove regulatory compliance for Shallow Flood Best Available Control Measure (BACM). LADWP also recognizes that some tools, namely remote satellite imagery, are not independently effective at measuring the variability of wetness coverage with a 30m resolution pixel, but more importantly the effectiveness of Shallow Flood BACM areas that are irrigated using water-conserving sprinkler application methods. LADWP is committed to demonstrating to the District that Phase 7A surfaces are appropriately stabilized and these areas continue to suppress dust emissions. LADWP is currently conducting additional tests, throughout this summer, to calibrate the actual physical conditions on the ground with the results from the satellite imagery. Additionally, LADWP is working on other methods relating to accurately measuring the effectiveness of sprinkler irrigated areas and evaluating alternative methods of measuring compliance.

The District's demand for \$1.2 million in punitive fines is especially surprising because of the District's consistent collaboration with LADWP relating to the shared water conservation goals our agencies agreed upon in the historic 2014 settlement. The District undertook an obligation of good faith and fair dealing when it acknowledged the State's limited water resources and committed to working with the City to conserve water in dust mitigation activities on Owens Lake. LADWP hopes the District reevaluates this NOV in light of those shared goals and in light of the facts discussed below.

The District's issuance of the NOV is particularly shocking because, throughout 2016, LADWP and the District have collaborated on water conservation strategies and methods for all dust mitigation projects on Owens Lake. More specifically, as soon as LADWP was made aware of the lowered wetness levels, despite there being no dust emissions, LADWP took a proactive approach in increasing the irrigation schedules and informed the District about these operational adjustments. A ground truthing site visit was scheduled on March 31, 2016, between LADWP and District staff in which LADWP relied upon the District's representation that they would cooperate with LADWP to address how to reconcile the discrepancies between the remote sensing results and the physical conditions on the ground, which demonstrated that the subject dust control areas were saturated and non-emissive. (See Exhibit 1, Email transmission of Field Notes drafted by District Senior Scientist Dr. Grace Holder, *"Group also discussed possible ways to revise the symbology of the wet call evaluations so that areas that are close to the target wetness (and considered acceptable to the District) are not reflected as 'failing'". Grace and Nik will discuss with Phill and Great Basin staff on possible ways to do this.*" April 1, 2016.)

Furthermore, at no point during the March 31, 2016, meeting between the District and LADWP, or at any subsequent meeting preceding the issuance of the NOV, did the District inform LADWP that it could be facing an NOV and corresponding fines. To the contrary, during the March 31, 2016, meeting, District staff left LADWP with the distinct impression that the District had ground-truthed the results of the satellite imagery and found that the sprinklered areas adequately controlled dust emissions despite the lower wetness percentages registered on the satellite imagery.

As stated above, from January through March 2016, LADWP began making operational adjustments to irrigation schedules based on the District's initial compliance reports. Since that time, LADWP has experimented with increasing the amount of water applied with sprinklers. Moreover, despite the District possessing remote satellite sensing data that showed inadequate wetness, the District failed to recommend higher water flows during the March 31, 2016, site visit or at any time since. During that same meeting, District staff discussed these adjustments and the fact that sprinkler areas were

“struggling” to meet the 72 percent wetness coverage. That meeting, which for the first time ground-truthed the remote sensing, resulted in the District’s tacit approval and permission for LADWP to continue to operate the subject areas with sprinklers despite the lower wetness coverages shown in the remote sensing images. Hence, these areas were operated at the original irrigation schedule until May 27, 2016. Once again, at no time did the District indicate that LADWP could face an NOV if the satellite imagery showed lower wetness values.

Despite the continued inconsistency between the satellite imaging results and the facts on the ground, LADWP continues to respond to the District’s concerns relating to satellite imagery results showing insufficient wetness. LADWP continues to make adjustments to water delivered to the sprinklered areas, and has actively operated the sprinklers this summer, between dust seasons, to effectively calibrate the sprinklers with the satellite imagery.

The District, however, could have avoided issuing the NOV if it accepted the ground-truthed Phase 7A wetness results. The District has been using satellite imagery since 2001, and its reliance on satellite imagery has *always* been coupled with regulatory staff’s ground-truthing. (See Ch. 7, 2008 SIP, p. 7-13, “compliance measurement . . .; Section 6.5 2016 SIP; Attachment B – Protocol for Operation and Maintenance of Owens Lake Tillage with BACM Backup Section 1.2.3.3: Ground-based Observations “Ground observations are usually needed to complement (1) important features that cannot be evaluated remotely with confidence, such as soil structure; (2) Information needed to calibrate remotely sensed data or interpretations; (3) Tactical, spot observations where remote observations are impractical, inconvenient, or in need of calibration. . . .”). Ground-truthing is a critical component to evaluating the effectiveness of all dust control measures, particularly those involving ground wetness. This fact makes the District’s NOV more confounding, particularly in light of the District’s staff’s representations on March 31, 2016.

The District has historically engaged in ground-truthing efforts. Ground-truthing was especially critical over the past six months in which the District’s own air quality experts, in collaboration with LADWP staff, physically observed Shallow Flood areas that are irrigated with sprinklers. That physical observation revealed that the sprinklers were keeping the observed areas sufficiently wet and saturated without dust emissions, despite satellite imagery data suggesting the contrary. During this instance, ground-truthing enabled the District to declare the area as non-emissive.

The District’s sole reliance on periodic satellite images to issue an NOV for 182 separate days is misplaced, contrary with its past practices of ground-truthing, and inconsistent with the requirements of the 2016 State Implementation Plan (SIP).

(2016 SIP, Section 6.5, *“Compliance measurement on the large scale of Owens Lake dust controls typically employs the use of satellite imagery coupled with groundtruthing. Improvements to the methods used for control measure compliance and enforcement will continue.”*).

In addition to the NOV’s reliance on unverified satellite imagery as the basis for violation, those satellite imagery results appear to include portions of Phase 7A roads and Environmentally Sensitive Areas, which contain cultural resources, where dust control measures are not currently constructed. This error invalidates the NOV because the District hadn’t followed its own SIP required compliance procedures to remove these areas and employ ground-truthing activities. The inclusion of these areas makes it impossible to determine which areas are required to comply with wetness standards and those where wetness standards do not apply. This results in falsely lowered wetness cover percentages.

It is also inappropriate to apply the terms of the Stipulated Order of Abatement (SOA) to assess penalties. The stipulated penalties provision was intended as a tool to ensure that LADWP completed construction of Phase 7A on time; not to extract ratepayer funds for technical violations, which did not result in air quality violations and are not supported by the physical on-the-ground conditions. LADWP completed construction on time and on schedule, and the dust control areas were operational on December 31, 2015, in accordance with the SOA. The District is misappropriating the stipulated penalties provision as it was not intended to be used as a tool for the District to assess penalties for NOVs relating to anything *except* construction deadlines. (See SOA No. 110317-01, Para. 11, 12)

Since LADWP and the District reached a historic settlement in 2014, both agencies began a new era of collaboration to improve air quality in the Owens Valley, while also conserving water during this historic and ongoing drought. Therefore, LADWP requests that you resolve the NOV through the application of Section C.ii.d. of Board Order No. 160413-01, which states: *“If for any Shallow flooding area, the percent of areal wetness cover in the periods specified in Paragraph 9.B.ii, ii and iv, above, is below the minimum percentages specified for each shallow flood area based on the air quality model for the analysis period, and there were no monitored or modeled exceedances of the NAAQA at or above the Regulatory Shoreline, that area will be deemed to be in compliance if the City demonstrates in writing and the APCO reasonably determines in writing that maximum water delivery flows were maintained throughout the applicable period.”* Between January 1, 2016 and June 30, 2016, LADWP has applied close to the same amount of water to sprinkler-irrigated Shallow Flood areas as it applied to the “traditional” Shallow Flood areas, but in a much more efficient and evenly distributed


Mr. Phillip L. Kiddoo
Page 5
July 22, 2016

system. LADWP believes Section C.ii.d allows you to exercise your discretion in such a manner and deem these areas in compliance. (Exhibit 2)

In closing, LADWP agrees with District staff that the methods that have been traditionally used to judge compliance for Shallow Flood areas may not be appropriate for judging compliance for areas irrigated with sprinklers. LADWP renews our request to work with your staff to revise these enforcement and monitoring methods to accurately determine whether these areas are mitigating dust sufficiently. While it is critical to remember that the areas described in the NOV did not emit dust on any single day of the 182 violation days alleged in the NOV, it is in both agencies' interests "to work collaboratively to develop improved wetness and vegetative cover measurement techniques, control efficiency relationships and compliance specifications for all PM₁₀ control measures". (See 2016 SIP, Sec. 6-5, p. 57; 2008 SIP, Sec. 7, p. 7-13) LADWP has committed to do so in the past and remains completely committed going forward.

Please let me know if you think it would be useful to meet to discuss these issues and attempt to resolve this situation.

Sincerely,


For Richard F. Harasick
Director of Water Operations

RFH:ar

Attachments

c: Mr. Martin L. Adams
Ms. Julie C. Riley
Mr. James G. Yannotta
Ms. Jennifer F. Wong

From: Reiser, Gary
Sent: Tuesday, July 12, 2016 12:24 PM
To: Riley, Julie
Cc: Harasick, Richard; Wong, Jennifer; Olin, Jason
Subject: FW: Notes from field meeting on 3/31/16 - for your review
Attachments: Notes from GB-DWP Field Meeting_20160331draft_a.docx

From: Grace Holder [<mailto:gholder@gbuapcd.org>]
Sent: Friday, April 01, 2016 17:24
To: Barbieri, Nik; Olin, Jason; Reiser, Gary
Subject: Notes from field meeting on 3/31/16 - for your review

Hi Nik, Jason and Gary,
Attached are a set of draft notes from the meeting we had in the field yesterday. Please review and let me know what changes should be made. I typed them pretty quickly - so there may be some things that are incomplete. Also my field notes were not the best so I may have missed a few things.

Also please forward these notes to John and Keith. I could not find their email addresses.

Thanks and have a nice weekend.

Grace A. McCarley Holder

Great Basin Unified Air Pollution Control District

157 Short Street, Suite 6

Bishop, CA 93514

phone: 760.872.8211 x 236

Notes from Field Meeting on Owens Lake
March 31, 2016

Present:

District: Grace Holder and Nik Barbieri

LADWP: Jason Olin, Gary Reiser, John Hunter, and Keith Leon

The main purpose of the field meeting was to review the conditions of several DCAs that are of concern to the District or LADWP and to discuss their current and future operation. The meeting was valuable to the District to better learn about the operation, maintenance and constraints of dust controls on the lake and the extensive efforts by DWP to make sure the project meets the requirements and is successful.

The following list includes the areas that were visited as well as those that were discussed (but not visited) during the meeting. A summary of the discussion for each area is provided below.

DCAs visited:

T1A-4: This is a sprinkler area wetted with 3 irrigation sets of 1 hour each. Irrigation was increased to 150% in response to low wetness cover readings from LandSat analysis. Increased irrigation did not result in significantly higher wetness cover readings. Surface conditions appear to range from saturated to moist. Surface was deemed non-emissive and no efflorescent salt bloom was observed. Discussed returning area to original irrigation schedule and monitoring through observations to determine if this is sufficient to keep in stable condition. Design of area was to have water from sprinkler cover 80% of surface.

T5-1: Discussion made to convert DCA from Shallow Flooding to Managed Vegetation. Area has extensive vegetation cover and appears visually to meet requirements for Managed Vegetation. With this change the area would change irrigation from a Shallow Flooding schedule to one designed for MV. District feels that this is reasonable as the area has sufficient vegetation to justify the change in BACM. First official MV call would occur in the fall of 2016. DWP will submit request to District for conversion.

T3SE Addition: About 4,000 feet of additional whiplines were installed (but are not yet operational) in the area to improve wetness cover distribution. Whiplines will be operational once new fittings are installed, probably within next week or so.

T1A-2a: The Shallow Flooding areas were visited. Areas are being irrigated with sprinklers as at T1A-4. Irrigation schedule will be returned to original schedule based on original design and area will be visually monitored (as at T1A-4). The sprinkler flood areas on the south will be separated from those in the northern portion of the DCA for wetcall evaluation. The northernmost sprinkler area was shut off since it was flooded from overflow coming from the adjacent shoreline area.

The overflow into the area has dried and the sprinklers will be turned back on. The small area delineated along the mainline road in the center of the DCA as SF will be removed from future wetcalls as they are part of the infrastructure for flushing flows.

T37-2: The outflow area from the Bartlett Well discharge was visited. The area where the discharge flows may extend through the project was left out of the Shallow Flooding design to accommodate the spring discharge. This discharge area will be removed from future wetcalls.

T36-2: The brine area in the southwestern part of T36-2 DCA was visited. A berm has been constructed that separates the brine area from the rest of the cell. Nik observed some dust activity in the western portion of the brine area during strong wind on 3/28. The active surface appears to be located on the higher topographic areas that are adjacent to the berms along the west and northwest parts of the cell. Discussion was made concerning if the western end of the brine area needs to be modified to improve the spreading of brine surfaces. Also had a discussion on potentially moving the berm further to the south to reduce the extent of the topographically higher exposed lake bed surface present. Decide to wait until after the brine monitoring event to see how the area performs with respect to the new Brine BACM requirements. The brine area will be evaluated during the upcoming field work in April.

DCAs discussed but not visited:

T9: The DCA was split during the development of the Dynamic Water Management Plan into a T9-North and a T9-South. Historically, since the areas are operated together, the two parts of the DCA have been grouped for wetcalls. When both cells are in operation, they should be combined for wetness cover evaluation. District will revise the wetcall polygons to recombine T9-North and T9-South during the compliance season.

T13-1 and T13-1 Addition: The upper portion of the T13-1 cell has one of the shallow flooding wetness cover test sites. The presence of this test site physically separates the lower portion of T13-1 from T13-1 Addition. Prior to the test T13-1 and T13-1 Addition were grouped together for wetness cover evaluation. The shallow flooding wetness cover test will be complete in June 2016.

T30-1: The District will correct their GIS files that shows a large portion of T30-1 as shallow flooding when it should be managed vegetation. This vegetation area will be removed from shallow flooding wetness cover analysis.

T5-1 Addition: This area does not meet the performance criteria for any of the BACMs. It is designed to enhance the existing shrub vegetation through buried drip irrigation. Nik and Grace will discuss how to better classify this area with Phill. Same discussion will be had for the channel areas.

T3SE and T3SW TWB2: The lower ends of these two cells are being tilled and turned into TWB2. Outflow from the shoreline and T3SE will be routed to these areas. When flow is present it will flood the tillage rows.

T18S: The brine area in T18S is going to be re-flooded due to habitat considerations. It may revert back to brine after the spring bird migration season although the future is uncertain at this time.

T16: Work continues at T16. Gary reports that he has been asked to increase the salinity of the southern pond to improve the habitat value. This will probably be done by getting water out of the brine line pipeline. The western side of the DCA is not fully implemented yet. When complete it will include a portion of TWB2 and a portion of brine.

Other:

Group also discussed possible ways to revise the symbology of the wet call evaluations so that areas that are close to the target wetness (and considered acceptable to the District) are not reflected as "failing". Grace and Nik will discuss with Phill and Great Basin staff on possible ways to do this.

EXHIBIT 2

Phase 7a Sprinkler Area Operation: T1A-2 N&S, T1A-4, T37-2

The table below illustrates the water use for the NOV areas from January 1-June 30, 2016:

Phase 7A NOV Areas		January 1-June 30, 2016	
<u>DCA</u>	<u>Area (Acres)</u>	<u>Total Acre-ft Applied</u>	<u>Acre-ft/acre</u>
T1A-2 (N&S)	58	59	1.03
T1A-4	614	1117	1.82
T37-2	275	306	1.11

In comparison, here is the water use for two traditional lateral shallow flood areas that were continuously compliant for the same time period (January 1-June 30):

Standard Lateral SF Areas		January 1-June 30, 2016	
<u>DCA</u>	<u>Area (Acres)</u>	<u>Total Acre-ft Applied</u>	<u>Acre-ft/acre</u>
T13-1	457	866	1.89
T10-2	308	427	1.39

Note that the acre-ft/acre application for these traditional shallow flood areas is similar to that applied to the sprinkler dust control areas. Having applied close to the same amount of water with a much more efficient and evenly distributed system (sprinklers), the satellite wetness percentages do not seem to adequately reflect actual field conditions.



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
760-872-8211 Fax: 760-872-6109

August 3, 2016

Mr. Richard Harasick
Director of Water Operations
Los Angeles Department of Water & Power
111 N. Hope Street
Los Angeles, California 90012

RE: NOV #461 – Response to City's Comments

Dear Mr. Harasick:

The District reviewed the concerns raised in your July 22, 2016 letter regarding Notice of Violation #461 (NOV #461) issued to the City of Los Angeles (City) for its failure to install fully-compliant Best Available Control Measures (BACM) in the Phase 7a and Phase 7a transition areas. The District notes that the City did not state its desire or intent to bring these non-compliant BACM Shallow Flood areas into compliance as required by law. The City agreed to the BACM Shallow Flood requirements that were placed into the law requiring 72% wetness cover as confirmed with satellite imagery. These requirements have been in place for over a decade and cannot be changed without changing the law.

The District advises the City to clearly state its intention to bring these areas into compliance prior to the fall dust season commencing on October 16, 2016. The District believes the City, if they so choose, can make the necessary changes and achieve compliance by this time. If the City declines, it has violated both the law and its agreements with the District. The decision of wetting the Owens Lake playa with an untested and unproven method to meet the compliance standards for BACM Shallow Flood was that of the City and the City alone.

The District finds most of your arguments against the issuance of the NOV have no merit. The one exception is that the District agrees that roads and berms should be excluded from the wet cover area calculations. The District has requested GIS files with the as-built locations of roads and berms of the Phase 7a project areas since October 2015 and has yet to receive them. Before a re-evaluation can be done, the City must provide these files to the District. The remainder of this letter addresses your other concerns.

Applicable Legal Requirements. We begin with the legal requirements for BACM Shallow Flooding that apply to the NOV:

1. For the Phase 7a shallow flood areas, 72% of each area must have substantially evenly distributed standing water or surface-saturated soil. District Board Order (BO) #160413-01 (para. 9.C.i.), Board Order #130916-01 (para. A.1.a), and BO #110317-01 (para. 1.) require the City to install, operate and maintain fully-compliant BACM in the Phase 7a and Phase 7a transition areas. The City has known about this requirement for more than seven years. Although the City installed and operated the sprinklers in the Phase 7a project areas, the equipment installed is not “fully-compliant” because it did not meet the wetness cover requirement for BACM. The fact that the cited areas (T1A-2a (North and South), T1A-4 and T37-2) repeatedly failed to meet the 72% wetness cover requirement indicates that the installed equipment cannot be reliably operated in full compliance with shallow flood BACM requirements.
2. The District’s Air Pollution Control Officer has the sole discretion to select one of the approved methods for determining shallow flood wetness cover. “Aerial photography, satellite imagery or other methods approved at the sole discretion of the APCO shall be used to confirm wetness coverage.” (BO #160413-01, para. 9.I.) The satellite imagery method selected in this case has been in continuous use for over 16 years with the City’s knowledge, was developed and ground-truthed with the City’s participation and cooperation, and was adopted in the 2008 SIP (Section 5.2.5 and the 2016 SIP (Section 6.5).

These legal requirements are not mentioned in your letter and may change your analysis. They were specifically agreed to by the City, incorporated in the 2014 Stipulated Judgment against the City, and adopted as law in the 2016 Board Order and Rule 433 with the City’s consent. The City further agreed to the 2011 Stipulated Order of Abatement and is bound by those terms. The City has waived any challenge to these terms and cannot appeal them under Health and Safety Code Section 42316 or any law by operation of the Stipulated Judgment. By failing to install and operate Shallow Flooding in the designated areas in compliance with the explicit criteria for Shallow Flooding BACM, the City has violated both the law and its agreements.

Rather than seeking civil penalties for these violations, the District has applied the daily offset payment provisions in the 2011 Stipulated Order of Abatement No. 110317-01. Your argument that these provisions only apply to a failure to meet the construction deadline is contradicted by the explicit terms of that Order. Paragraph 11 of Order provides in relevant part that the City shall pay the daily offset payments for its “failure to comply with BACM implementation and operation deadlines for all Phase 7a areas and Transition areas” as set forth in the Order. Both operation and construction are covered by this provision. In addition, the formula for calculating the offset payment is determined by the “compliant” and “non-compliant” areas. The City may not avoid the payment by constructing a flawed system that does not comply with the BACM requirements.

Moreover, we are unsure whether the City has considered the necessary alternative to making the emission offset payment, which is to pay civil penalties under the Health and Safety Code for every

day of violation. This amount will undoubtedly be larger and will be identified as a civil penalty rather than an offset.

The City's duty to make the stipulated offset payment within 90 days is not appealable or subject to challenge. If the City fails to make this payment on time, it will be subject to additional civil penalties for violation of the Health and Safety Code. It will also be in breach of the Stipulated Order of Abatement and potentially forfeit any or all of the benefits it obtained under this Order.

The City Had Notice and the Duty to Comply With Applicable Law. Under these facts, your assertion that LADWP is shocked by the NOV is not reasonable. The express terms of the law and the City's agreements put it on ample notice of the requirements for BACM Shallow Flooding for more than a decade before the NOV was issued. The City should have, and is required by law to take all necessary and appropriate measures to fully comply with those terms. In addition, the District has regularly provided shallow flood reports to the City showing the failure to comply with these requirements, informing it of the compliance status in the dust control areas, and providing a record of the wetness cover based on the amount of standing water or surface saturated soil. The District has been patient with the City in its attempt to make necessary infrastructure and/or operational changes to meet BACM Shallow Flood compliance requirements. Initial operational changes failed to bring these areas into compliance and on May 23, 2016 the District requested written corrective actions from the City. These corrective actions were received on June 3, 2016, specifically for T1A-4 area, the area furthest from reaching compliance. These corrective actions were insufficient and compliance was not met.

Violation for Failure to Install and Operate BACM Shallow Flooding. It is also meritless to assert that the City's violations were not an air quality violation. They were. All dust control measures at Owens Lake include performance criteria that are intended to prevent excess emissions. Corrective actions are expected before control measures fail any performance requirement. The City is further required to install and operate BACM that complies with these performance criteria, not a defective measure that fails to perform according to the legal requirements. The City's repeated assertion that these areas had no emissions is irrelevant to the City's violation of the applicable law identified above, because all of the requirements of the law are related to emission control, and is otherwise unsupported.

Satellite Imagery as an Approved Method to Determine Compliance. The City is not permitted to challenge the District's use of satellite imagery to determine the City's violations. This method is specifically provided as an acceptable test method for this purpose. (BO #160413-01, para. 9.I.) Because the District's Air Pollution Control Officer has the sole discretion to select satellite imagery as the method to confirm wetness coverage, the City may not challenge or dispute this choice of method. (*Id.*) The City may not rewrite the law or the legal standards applicable to determine its compliance status.

Nevertheless, we respond to your concerns about satellite imagery. The method used by the District to monitor compliance of shallow flooding areas with dust control requirements is based on a wet-dry threshold (teeter point) reflectance value for shortwave infrared wavelengths as measured in Landsat

satellite imagery. This method has been successfully used to evaluate wetness cover in Shallow Flooding areas since 2004. The method was originally developed by the District's consultant HydroBio for the Thematic Mapper sensor on Landsat 5. As imagery from subsequent satellites was utilized the corresponding wet-dry thresholds were recalculated for Landsat 7, SPOT-5, and Landsat 8.

Your letter incorrectly asserts that the District must ground-truth the satellite imagery every time a violation is detected. This misreads your references which refer to the initial development and ground-truthing of the satellite imaging method. The District had its remote sensing expert at the Desert Research Institute conduct an independent investigation to calibrate and validate the wet-dry teeter point for shallow flooding areas in 2014 for data collected with the Landsat 8 platform. In this investigation, the Landsat 8 teeter point was calibrated in the field using high precision measurements of soil reflectance with a portable spectrometer combined with physical testing of the soils on the lake bed. The District staff has conducted regular inspections of the conditions on the lake bed to confirm the accuracy of the satellite imagery method with the City's participation and concurrence.

Following calibration of the satellite imagery methodology it is not necessary to couple satellite images with ground-truthed identification to distinguish areas with dry or moist soils from areas with standing water and surface saturated soils. In your letter you quote from several documents including the 2014 Stipulated Judgment (Attachment B) about the need for ground-based observations to be coupled with satellite imagery. However, your quote omitted the last sentence of the paragraph which said, "Ground based operations will be employed sparingly, and focus on resolving questions and testing hypothesis of the day." Ground-truthing was not expected to be used routinely with all satellite image reports, and as intended in this case satellite images were verified by field observations finding that the sprinklers moistened large areas, but that the moist soils did not meet the compliant wetness cover criteria.

During the first half of 2016, particular emphasis was taken in observing the wetness conditions within the Phase 7a sprinkler areas. During these inspections it was observed that the results of the satellite image wetness cover evaluations generally matched the wetness pattern for standing water and saturated soil observed on the ground. The Phase 7a sprinkler areas failed the wetness cover test because insufficient area was covered by standing water or surface saturated soil as required for BACM shallow flooding. As mentioned in the March 31, 2016 field notes for the T1A-4 sprinkler area, "Surface conditions appear to range from saturated to moist." Saturated soil is differentiated from moist soil by the "tap test" in which the surface of a damp soil is slightly depressed and if the depression contains a thin layer of free water on the surface, it is considered to be saturated soil. Soil that does not fill with water after the surface is depressed does not satisfy the surface saturated soil requirement for shallow flood cover and is not included in the shallow flood cover measured by satellite imagery.

Your letter indicates that the City is currently performing its own tests. Please note that any such tests must comply with the 2016 Procedure for Modifying BACM, found at Attachment D to Board Order No. 160413-01. The City will need to follow the proper procedures to amend the applicable legal requirements identified above. Accordingly, because the City cannot contest the District's

discretion to use satellite imagery, your after-the-fact tests are not to be considered to contest the NOV.

The City Obtained No Variance From the Applicable Legal Requirements. As you know, the City did not seek or obtain a regular variance from the BACM Shallow Flooding Requirements. Your assertion that the District gave its tacit approval for the City to continue its inadequate wetness cover is therefore irrelevant, but also untrue. On July 15, 2016, we transmitted a letter enclosing a compilation of emails showing that these reports were sent to the City and that the District repeatedly informed the City about shallow flood areas that failed to comply with BACM wetness cover requirements. In addition, we have spoken repeatedly to you and LADWP staff about this failure and the requirement for the City to get into compliance with those requirements.

We reviewed your assertions about comments from District staff during a March 31, 2016 field visit with the District and LADWP staff, and find they lack merit. Dr. Grace Holder reports that there was no discussion of “how to reconcile the discrepancies between the remote sensing results and the physical conditions on the ground, which demonstrated that the subject dust control areas were saturated and non-emissive” as stated in your letter. At no time during the meeting did District staff indicate that the sprinkler areas were saturated and met the wetness cover requirements in fact it was observed by District staff that the areas were generally not saturated. The fact that at the time of the visit the area appeared to be non-emissive is irrelevant, as all areas, including dry areas, on the lake bed were non-emissive.

Dr. Holder also said the City incorrectly interpreted her notes to indicate that the District felt that the sprinkler areas were adequately wet. The excerpt from the notes included in the LADWP letter refer to the symbology of the wet call reports and ways to possibly show distinctions in the reports that are close to the required wetness from those that are not close. This was at the request of City staff who felt that they are judged by their management based on the results of the wet call evaluations. It was suggested that the symbology of areas that were close (within 5%) to the required wetness cover could be shown differently from areas where the wetness was further from the required target. As a result of this discussion, the symbology of the wet calls was changed in shallow flood reports starting in April 2016. We conclude there is no evidence of inconsistency between the results of satellite imagery and the wetness percentages in the shallow flooding area.

District Declines City Request to Remove NOV. Your request for the District to resolve the NOV using Section C.ii.d of Board Order #160413-01, which allows wetness cover to be below the required amount when the City has applied the maximum water delivery flows, is both inapplicable to this situation and revealing of the problem. It is inapplicable because this paragraph and a similar paragraph in 9.B.ii-iv only applies to the spring ramping flow period between May 16 and June 30 of each year and is for the situation when high evaporation rates might outpace water application rates and result in wetness cover below the ramping target despite having the maximum water delivery flows throughout the applicable period. If the sprinkler system that was installed is indeed at its maximum water delivery flow as implied by your suggestion, then this would indicate that the installed equipment is incapable of meeting the Shallow Flood BACM requirements, and therefore, the City did not install fully-compliant BACM.

In conclusion, the District has a duty to enforce each provision of the law. The City has a commensurate legal duty to comply with those provisions and its agreements. The District will not entertain the City's requests to rewrite these requirements in the context of this Notice of Violation. As a matter of law, civil penalties are the consequence of violating the law, or alternatively in this situation, emission offset payments in a stipulated amount are to be paid. The District reiterates that the City should take all necessary measures to come into full compliance with these requirements as soon as possible. Failure to do so will compound the City's violations, and constitute additional violations of the District Orders, the Stipulated Judgment and the Stipulated Order of Abatement.

Sincerely,



Phillip L. Kiddoo
Air Pollution Control Officer

cc: (email only)
Martin Adams, LADWP
Jim Yannotta, LADWP
Julie Riley, LADWP
Milad Taghavi, LADWP
Jennifer Wong, LADWP
Ray Ramirez, LADWP
Duane Ono, GBUAPCD
Grace Holder, GBUAPCD
Nik Barbieri, GBUAPCD
Chris Howard, GBUAPCD
Kim Mitchell, GBUAPCD



ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, *Secretary*

DAVID H. WRIGHT
General Manager

October 3, 2016

RECEIVED

OCT 5 2016

Great Basin Unified APCD

Mr. Phillip L. Kiddoo
Air Pollution Control Officer
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, California 93514-3537

Dear Mr. Kiddoo:

Subject: Great Basin Unified Air Pollution Control District's Notice of Violation No. 461 Related to the Owens Lake Dust Mitigation Program – Phase 7a Project

While the Los Angeles Department of Water and Power (LADWP) disputes any violation of the Great Basin Unified Air Pollution Control District's (GBUAPCD) Board Order Nos. 130916-01 and 160413-01, the Stipulated Order or any other applicable order or law, for allegedly failing to install and operate Best Available Control Measures in certain Dust Control Areas within the Owens Lake Dust Mitigation Program – Phase 7a Project, LADWP is transmitting an offset payment in the amount of \$1,199,707 through a wire transaction pursuant to the above-referenced Notice of Violation in order to avoid a protracted legal dispute with the GBUAPCD. The wire transfer should be received by the GBUAPCD on October 4, 2016. LADWP admits no wrongdoing and is not waiving, and expressly reserves, all of its rights to challenge any future Notice of Violation issued by the GBUAPCD.

In order to assist the GBUAPCD in meeting federal air quality standards in the Owens Valley Planning Area, LADWP requests that the GBUAPCD use the entire offset payment to supplement its Keeler Dunes Dust Mitigation Project.

If you have any questions, please contact me at (213) 367-1001, or Mr. Milad Taghavi, Manager of Owens Lake Policy and Planning, at (213) 367-1138.

Sincerely,

Richard F. Harasick
Director of Water Operations

MT:jem
c: Mr. Milad Taghavi

ERIC GARCETTI
Mayor

Commission
MEL LEVINE, *President*
WILLIAM W. FUNDERBURK JR., *Vice President*
JILL BANKS BARAD
MICHAEL F. FLEMING
CHRISTINA E. NOONAN
BARBARA E. MOSCHOS, *Secretary*

DAVID H. WRIGHT
General Manager

RECEIVED

OCT 11 2016

Great Basin Unified APCD

October 6, 2016

Mr. Phillip L. Kiddoo
Air Pollution Control Officer
Great Basin Unified Air Pollution Control District
157 Short Street
Bishop, California 93514-3537

Dear Mr. Kiddoo:

Subject: Great Basin Unified Air Pollution Control District's Notice of Violation No. 461
Related to the Owens Lake Dust Mitigation Program – Phase 7a Project

This is to inform you that T1A-2a (North and South), T1A-4, and T37-2 Dust Control Areas (DCA), which were the subject of the above-referenced Notice of Violation, will be compliant with the 72-percent wetness cover requirement. T1A-2a (North and South) and T1A-4 DCAs will be compliant on October 16, 2016. T37-2 DCA will be compliant on January 16, 2017, in accordance with the Dynamic Water Management protocols.

The Los Angeles Department of Water and Power (LADWP) conducted extensive sprinkler irrigation testing during June and July 2016, which generally represents the highest temperatures and evaporation rates at Owens Lake to address your stated concerns. The results of the sprinkler irrigation runtimes were analyzed using the U.S. Geological Survey's Landsat 8 Satellite (Landsat) imagery to determine the wetness cover levels in accordance with the Shallow Flood Detection by Remote Sensing 2004 and 2005 protocols.

Based on our extensive sprinkler irrigation testing, LADWP intends to operate the sprinkler irrigation network in T1A-2a (North and South), T1A-4, and T37-2 DCAs as follows:

- T1A-2a (South) DCA – Up to 6 hours of irrigation runtime per day
- T1A-2a (North) DCA – Up to 6 hours of irrigation runtime per day
- T37-2 DCA – Up to 6 hours of irrigation runtime per day
- T1A-4 (West) DCA – Up to 12 hours of irrigation runtime per day
- T1A-4 (East) DCA – Up to 6 hours of irrigation runtime per day

Putting Our Customers First 

Mr. Phillip L. Kiddoo
Page 2
October 6, 2016

Please note that the above-stated maximum irrigation runtimes per day are based on the highest temperatures and evaporation rates; hence, the daily irrigation runtimes would fluctuate depending on temperature, wind speed, wind direction, evaporation rates, precipitation, influences from seeps and springs as well as operations on adjacent DCAs. The sprinkler irrigation networks will generally be turned off during rain events.

Based on July 24, 2016, Landsat imagery, the above-mentioned irrigation runtimes resulted in achieving greater than 72-percent wetness cover requirements for T1A-2a (North and South), T1A-4 (East and West), and T37-2 DCAs. T1A-2a DCA achieved an overall wetness cover of 86 percent. T1A-4 (East and West) DCA achieved an overall wetness cover of 82 percent, and T37-2 DCA achieved an overall wetness cover of 91 percent.

Enclosed, for your reference, are July 24, 2016, Landsat imagery for T1A-2a, T1A-4, and T37-2 DCAs.

If you have any questions or require further information, please contact me at (213) 367-1138, or Ms. Jennifer F. Wong, Engineering Supervisor of Research and Special Studies, at (213) 367-0449.

Sincerely,

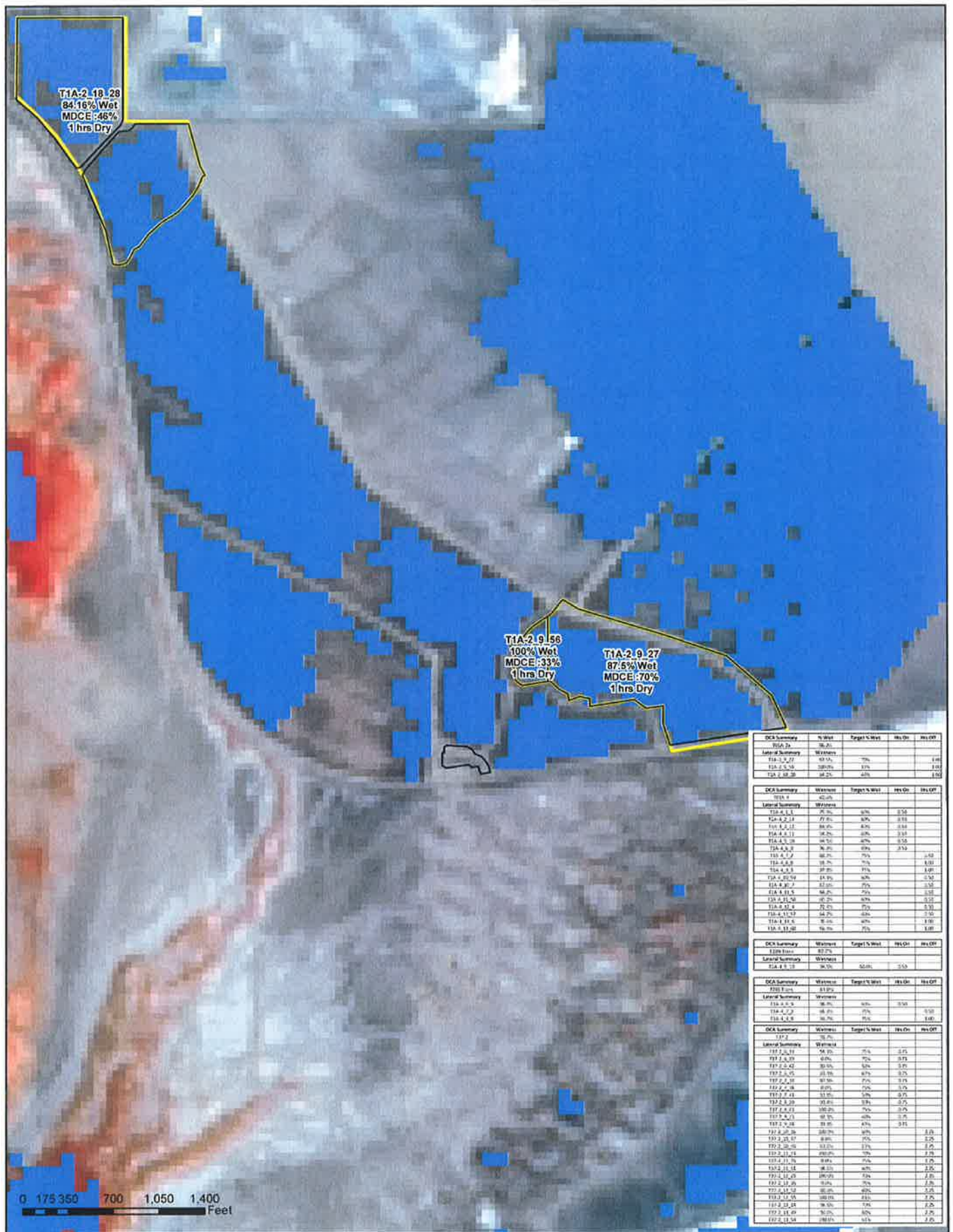


Milad Taghavi
Manager of Owens Lake Policy and Planning

MT:jem

Enclosures

c/enc: Ms. Jennifer F. Wong



DCA Boundary
 Sprinkler Lateral Boundary

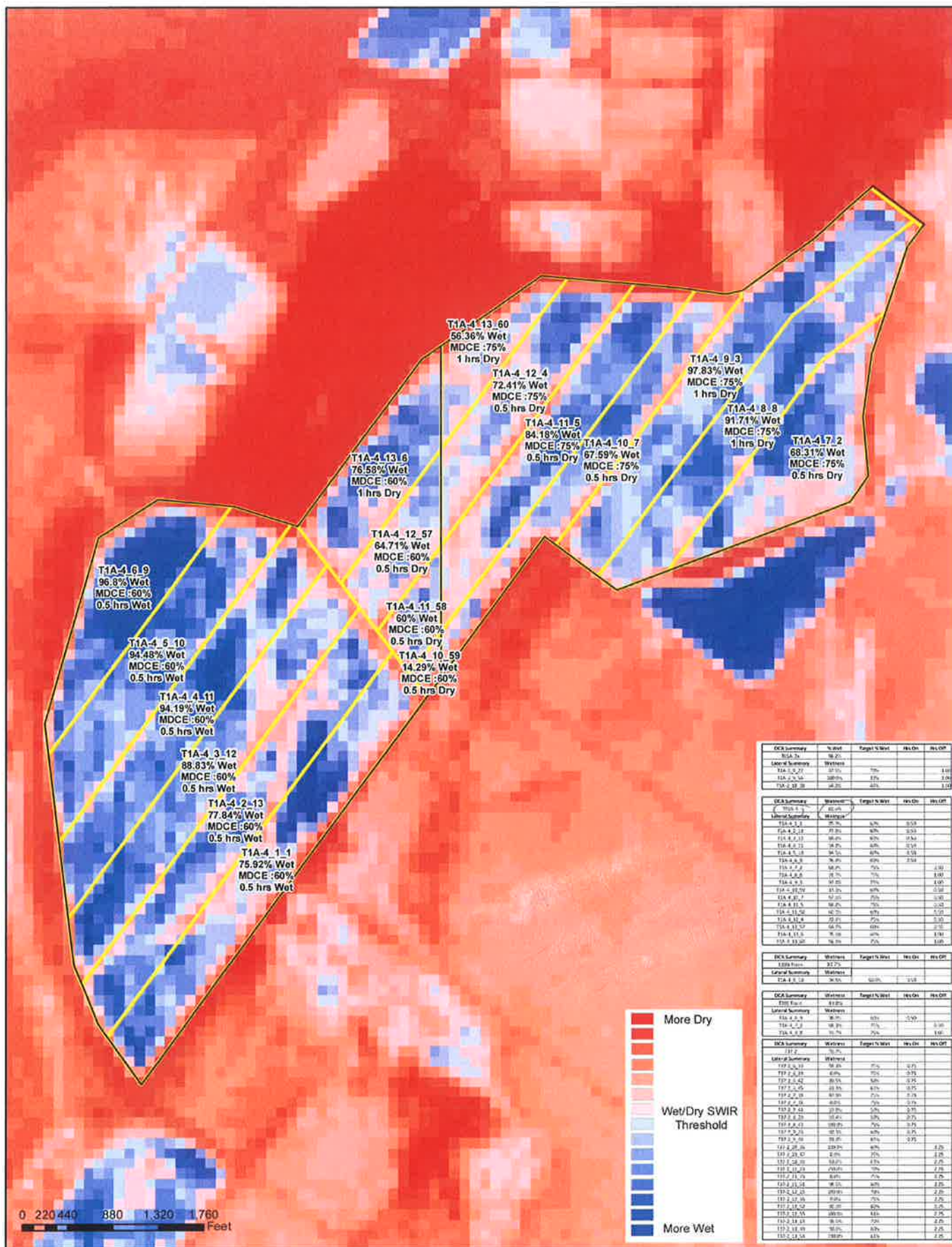
Map Layers Include:
Wetness Analysis based on 7/24/2016 Landsat 8
Imagery Backdrop of 7/24/2016 Landsat 8 (Color Infrared)

Owens Lake DCM - Shallow Flood

GB-Band5 Wetness Emulation

Wetness Analysis

Acquisition: 7/24/2016

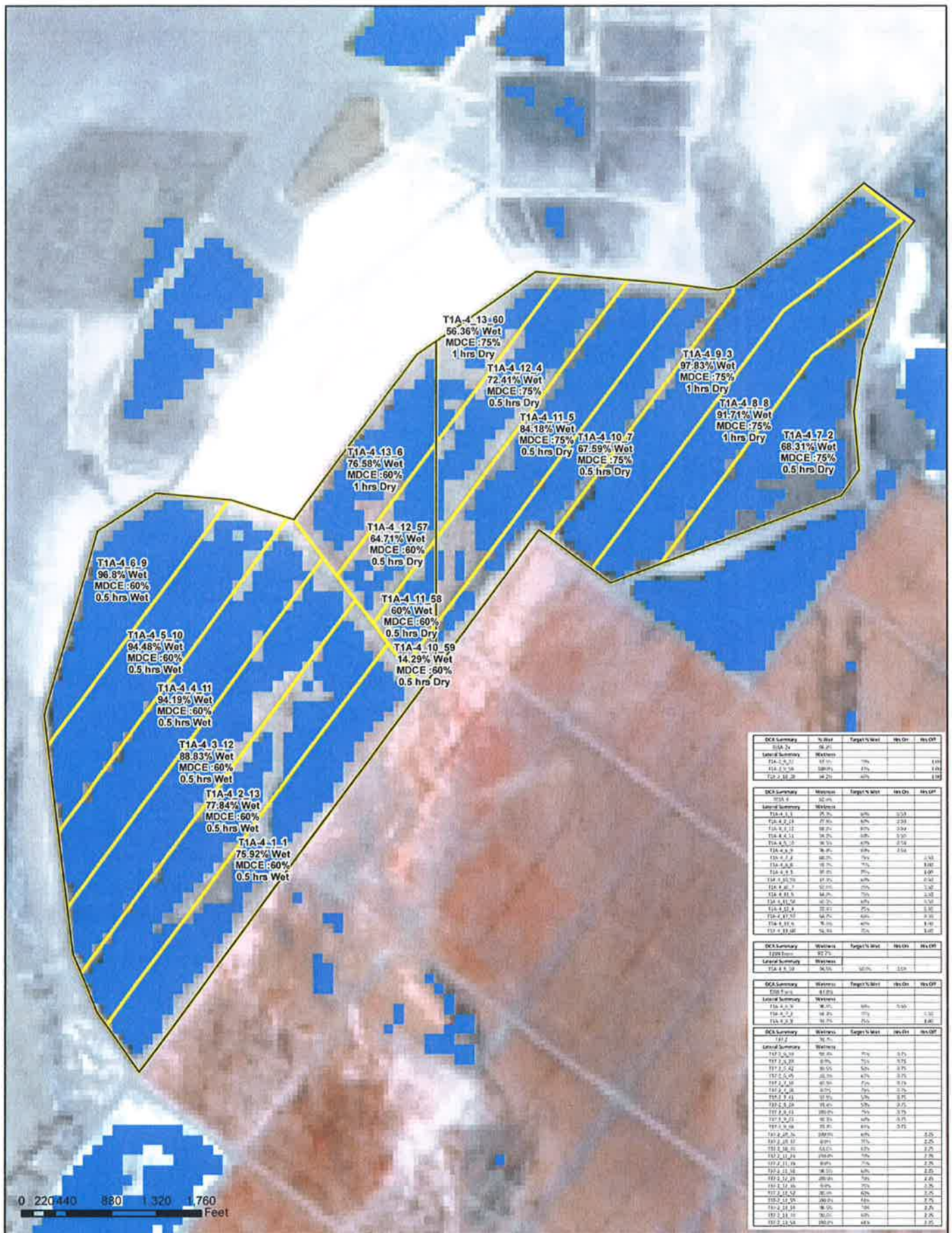


DCA Summary	Wetness	Target % Wet	Wet Dry	Wet DFT
Wetness	56.36%	75%		
Wetness	72.41%	75%		
Wetness	84.18%	75%		
Wetness	67.59%	75%		
Wetness	97.83%	75%		
Wetness	91.71%	75%		
Wetness	69.31%	75%		
Wetness	76.58%	60%		
Wetness	64.71%	60%		
Wetness	60%	60%		
Wetness	14.29%	60%		
Wetness	96.8%	60%		
Wetness	94.48%	60%		
Wetness	94.19%	60%		
Wetness	88.83%	60%		
Wetness	77.84%	60%		
Wetness	75.92%	60%		



DCA Boundary
 Sprinkler Lateral Boundary
 Map Layers Include:
 Wetness Analysis based on 7/24/2016 Landsat 8
 Imagery Backdrop of 7/24/2016 Landsat 8 (Color Infrared)

Owens Lake DCM - Shallow Flood
GB-Band5 Wetness Emulation
Wetness Analysis
Acquisition: 7/24/2016



DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	56.36%	75%	1 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	1 hrs Dry	0.5 hrs Dry
Wetness	56.36%	75%	1 hrs Dry	0.5 hrs Dry

DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	72.41%	75%	0.5 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	0.5 hrs Dry	0.5 hrs Dry
Wetness	72.41%	75%	0.5 hrs Dry	0.5 hrs Dry

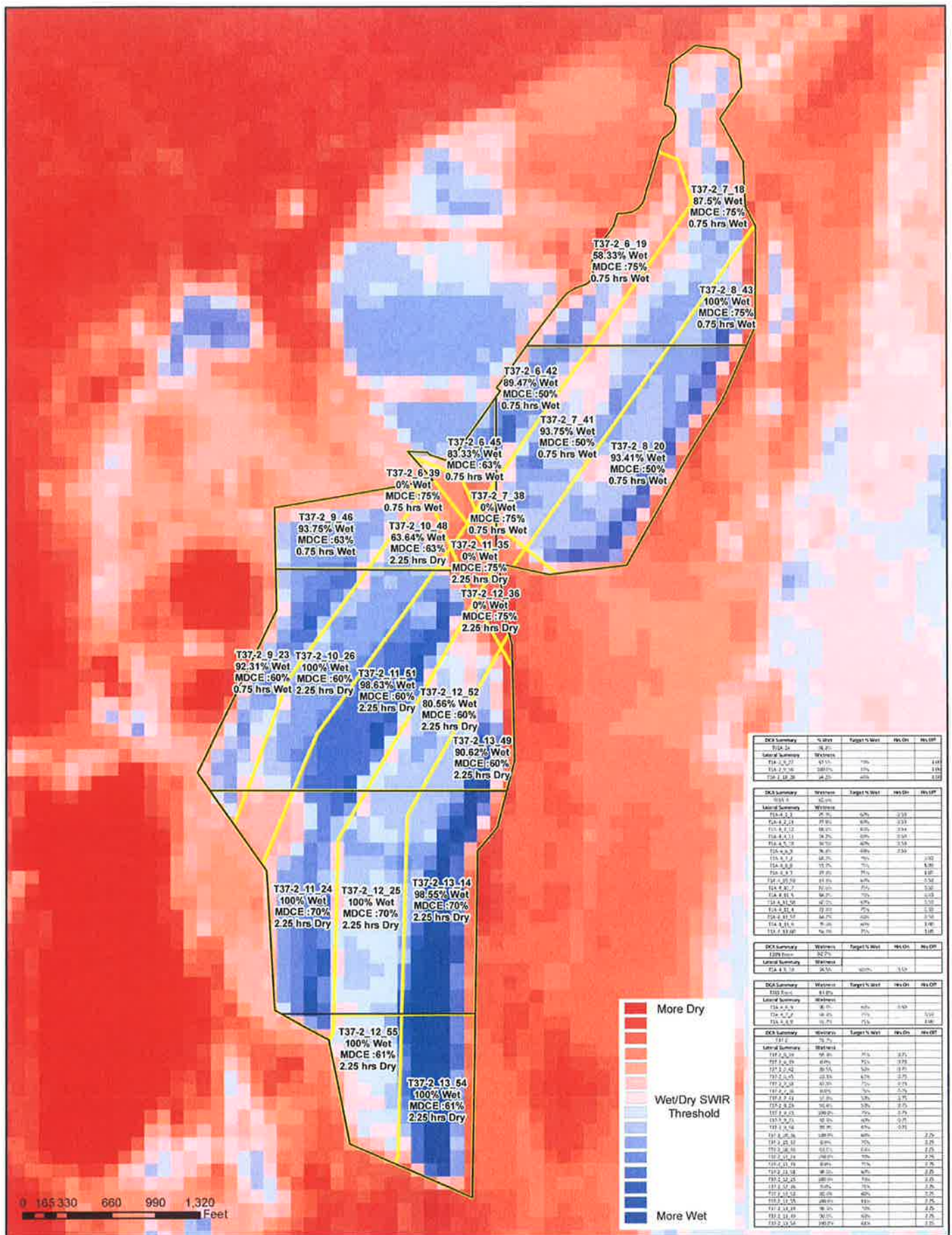
DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	84.18%	75%	0.5 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	0.5 hrs Dry	0.5 hrs Dry
Wetness	84.18%	75%	0.5 hrs Dry	0.5 hrs Dry

DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	67.59%	75%	0.5 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	0.5 hrs Dry	0.5 hrs Dry
Wetness	67.59%	75%	0.5 hrs Dry	0.5 hrs Dry

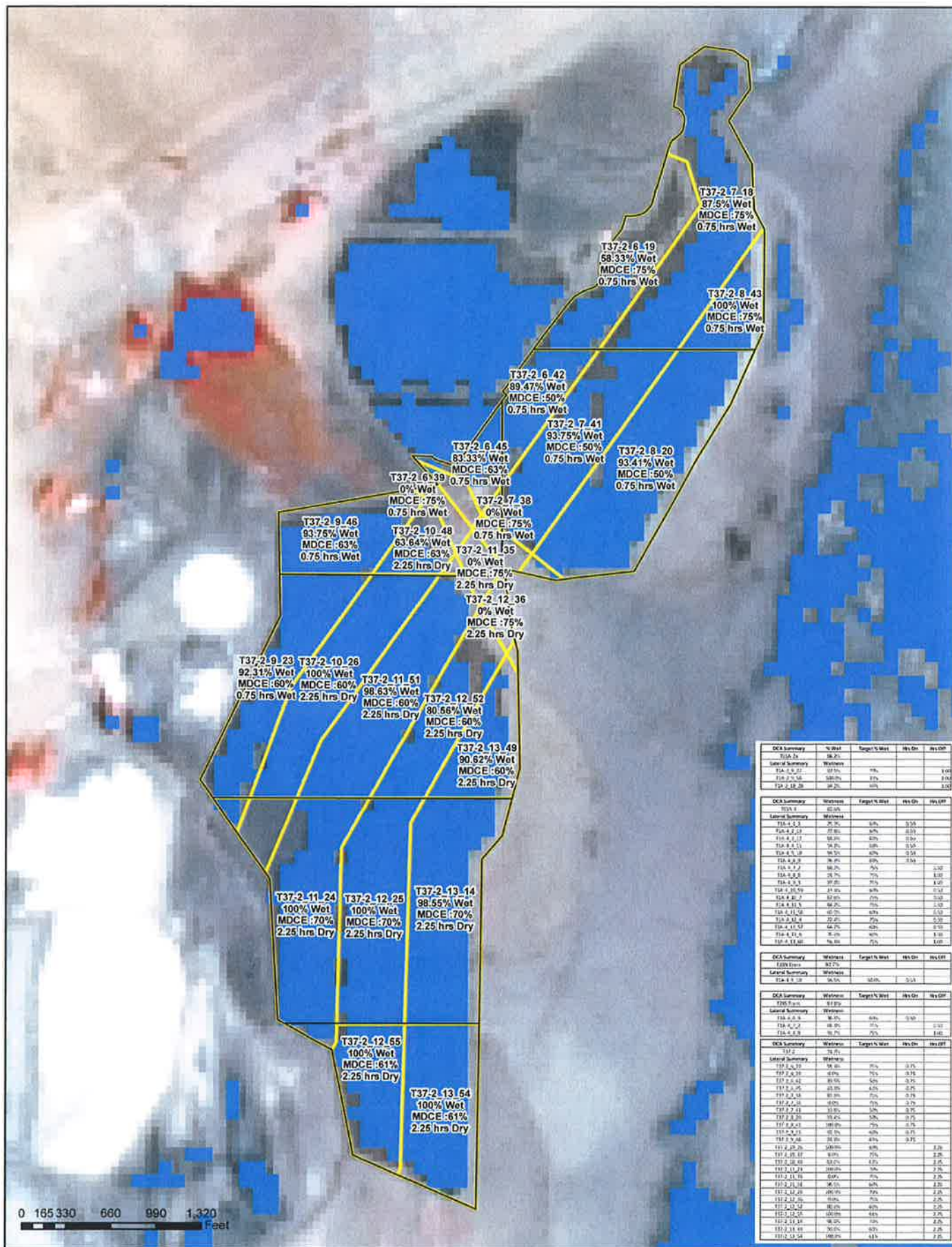
DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	97.83%	75%	1 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	1 hrs Dry	0.5 hrs Dry
Wetness	97.83%	75%	1 hrs Dry	0.5 hrs Dry

DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	91.71%	75%	1 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	1 hrs Dry	0.5 hrs Dry
Wetness	91.71%	75%	1 hrs Dry	0.5 hrs Dry

DCA Summary	Wetness	Target % Wet	Wet/Dry	Wet/Dry
Wetness	68.31%	75%	0.5 hrs Dry	0.5 hrs Dry
Lateral Summary	Wetness	75%	0.5 hrs Dry	0.5 hrs Dry
Wetness	68.31%	75%	0.5 hrs Dry	0.5 hrs Dry



DCA Summary	Wetness	Target % Wet	Wet Dn	Wet Dn
T37-2 18	87.5%	75%		
Lateral Summary	Wetness			
T37-2 18	87.5%	75%		
T37-2 19	58.33%	75%		
T37-2 20	93.41%	50%		
T37-2 21	89.47%	50%		
T37-2 22	93.75%	50%		
T37-2 23	83.33%	63%		
T37-2 24	0%	75%		
T37-2 25	0%	75%		
T37-2 26	93.75%	63%		
T37-2 27	63.64%	63%		
T37-2 28	0%	75%		
T37-2 29	0%	75%		
T37-2 30	92.31%	60%		
T37-2 31	100%	60%		
T37-2 32	98.63%	60%		
T37-2 33	80.56%	60%		
T37-2 34	90.62%	60%		
T37-2 35	100%	70%		
T37-2 36	100%	70%		
T37-2 37	98.55%	70%		
T37-2 38	100%	61%		
T37-2 39	100%	61%		
T37-2 40	100%	61%		
T37-2 41	100%	61%		
T37-2 42	100%	61%		
T37-2 43	100%	61%		
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T37-2 91	100%	61%		
T37-2 92	100%	61%		
T37-2 93	100%	61%		
T37-2 94	100%	61%		
T37-2 95	100%	61%		
T37-2 96	100%	61%		
T37-2 97	100%	61%		
T37-2 98	100%	61%		
T37-2 99	100%	61%		
T37-2 100	100%	61%		



DCA Summary	Wetness	Target % Wet	Wet Dry	Wet DCP
T37-2-1	36.2%	50%		
Lateral Summary	Wetness			
T37-2-1-1	36.2%	50%		
T37-2-1-2	36.2%	50%		
T37-2-1-3	36.2%	50%		
T37-2-1-4	36.2%	50%		
T37-2-1-5	36.2%	50%		
T37-2-1-6	36.2%	50%		
T37-2-1-7	36.2%	50%		
T37-2-1-8	36.2%	50%		
T37-2-1-9	36.2%	50%		
T37-2-1-10	36.2%	50%		
T37-2-1-11	36.2%	50%		
T37-2-1-12	36.2%	50%		
T37-2-1-13	36.2%	50%		
T37-2-1-14	36.2%	50%		
T37-2-1-15	36.2%	50%		
T37-2-1-16	36.2%	50%		
T37-2-1-17	36.2%	50%		
T37-2-1-18	36.2%	50%		
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T37-2-1-23	36.2%	50%		
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T37-2-1-25	36.2%	50%		
T37-2-1-26	36.2%	50%		
T37-2-1-27	36.2%	50%		
T37-2-1-28	36.2%	50%		
T37-2-1-29	36.2%	50%		
T37-2-1-30	36.2%	50%		
T37-2-1-31	36.2%	50%		
T37-2-1-32	36.2%	50%		
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T37-2-1-45	36.2%	50%		
T37-2-1-46	36.2%	50%		
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T37-2-1-85	36.2%	50%		
T37-2-1-86	36.2%	50%		
T37-2-1-87	36.2%	50%		
T37-2-1-88	36.2%	50%		
T37-2-1-89	36.2%	50%		
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T37-2-1-92	36.2%	50%		
T37-2-1-93	36.2%	50%		
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T37-2-1-97	36.2%	50%		
T37-2-1-98	36.2%	50%		
T37-2-1-99	36.2%	50%		
T37-2-1-100	36.2%	50%		



Owens Lake DCM - Shallow Flood
GB-Band5 Wetness Emulation
Wetness Analysis
Acquisition: 7/24/2016



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

October 11, 2016

Mr. Richard Harasick
Director of Water Operations
Los Angeles Department of Water & Power
111 N. Hope Street
Los Angeles, California 90012

Re: Notice of Violation #461 and Notice to Comply #1113

Dear Mr. Harasick:

This responds to your letter dated October 3, 2016 regarding Notice of Violation #461 (NOV #461) issued to the City of Los Angeles (City) for failure to install, operate and maintain fully-compliant Best Available Control Measures (BACM) in the Phase 7a and Phase 7a transition areas, and to confirm the District's receipt of the City's payment of \$1,199,707. Based upon the District's offer of settlement in its letter dated July 8, 2016, the City has satisfied the conditions of the offer and accordingly the District confirms that NOV #461 is resolved and closed. As required by NOV #461, the District has received the City's October 6, 2016 compliance plan describing the steps and schedule for how the City will attain compliance with BACM Shallowing Flooding requirements for these areas. The City should review and comply with the BACM Shallow Flood performance standards at all times in the future.

The District also issued Notice to Comply (NTC #1113) to the City to submit quarterly reports for the Phase 7a areas as required in Stipulated Order of Abatement #110317-07 (para. 9). The City subsequently submitted late quarterly reports for the third and fourth quarters of 2015, the first quarter of 2016, and a timely report for the second quarter of 2016. The District confirms that NTC #1113 is resolved and closed. The City should review and timely comply with the requirement to submit the required reports in the future.

Sincerely,

Phillip L. Kiddoo
Air Pollution Control Officer

cc: (email only)

Jim Yannotta, LADWP
Julie Riley, LADWP
Milad Taghavi, LADWP
Jennifer Wong, LADWP
Ray Ramirez, LADWP



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537
Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: Governing Board

From: Tori DeHaven, Clerk of the Board

Subject: Travel Report

Summary:

Susan Determann	9/14 – 9/16	ARB & South Coast Sponsored Thermo Scientific Technical Summit	Diamond Bar, CA
Nik Barbieri Casey Freeman	9/22	FAA Pilot Testing	Reno, NV
Jan Sudomier Jon Becknell	10/4 – 10/6	VEE* Recertification	Watsonville, CA
Phill Kiddoo Grace Holder Nik Barbieri	10/6	Rio Tinto Borax Mine Site Visit	Boron, CA
Phill Kiddoo	10/31 – 11/3	CAPCOA* Fall Conference	Monterey, CA
Susan Cash	11/1 – 11/4	CALPERLA* Annual Training Conference	Monterey, CA

*VEE – Visible Emission Evaluation

*CAPCOA – California Air Pollution Control Officers Association

*CALPERLA: California Public Employers Labor Relations Association

Board Action:

None. Information only.

Informational Items – Travel Report (No Action)
November 10, 2016 – Agenda Item No. 6a – Page 1



GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Tori DeHaven, Permit Coordinator/Board Clerk

Subject: Permit Enforcement Activity Report

The permit database is maintained by the Permit Coordinator. Information collected from the Air Quality Specialists, Air Pollution Control Officer and Deputy Air Pollution Control Officer is entered upon receipt. The data and reports are discussed regularly in permit enforcement meetings. Data collected as of September 30, 2016, is as follows:

1st Qtr. Permit Activity: July 1, 2015 – September 30, 2015

Permit Applications Received	0
Authority to Construct Issued	2
Temporary/Permits to Operate Issued	2
Permit Inspections	13
Notices of Violation Issued	0

4th Qtr. Permit Activity: July 1, 2016 – September 30, 2016

Permit Applications Received	4
Authority to Construct Issued	1
Temporary/Permits to Operate Issued	15
Permit Inspections	17
Notices of Violation Issued	1

Open Notices of Violation

Inyo County	Mono County	Alpine County
8	0	0

BOARD ACTION

None. Information only.

Informational Items - Permit Enforcement Activity Report (No Action)

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GREAT BASIN UNIFIED AIR POLLUTION CONTROL DISTRICT

157 Short Street, Bishop, California 93514-3537

Tel: 760-872-8211 Fax: 760-872-6109

BOARD REPORT

Mtg. Date: November 10, 2016

To: District Governing Board

From: Phillip L. Kiddoo, Air Pollution Control Officer

Subject: Air Pollution Control Officer Report

A verbal report will be given at the meeting.

JANUARY

2017

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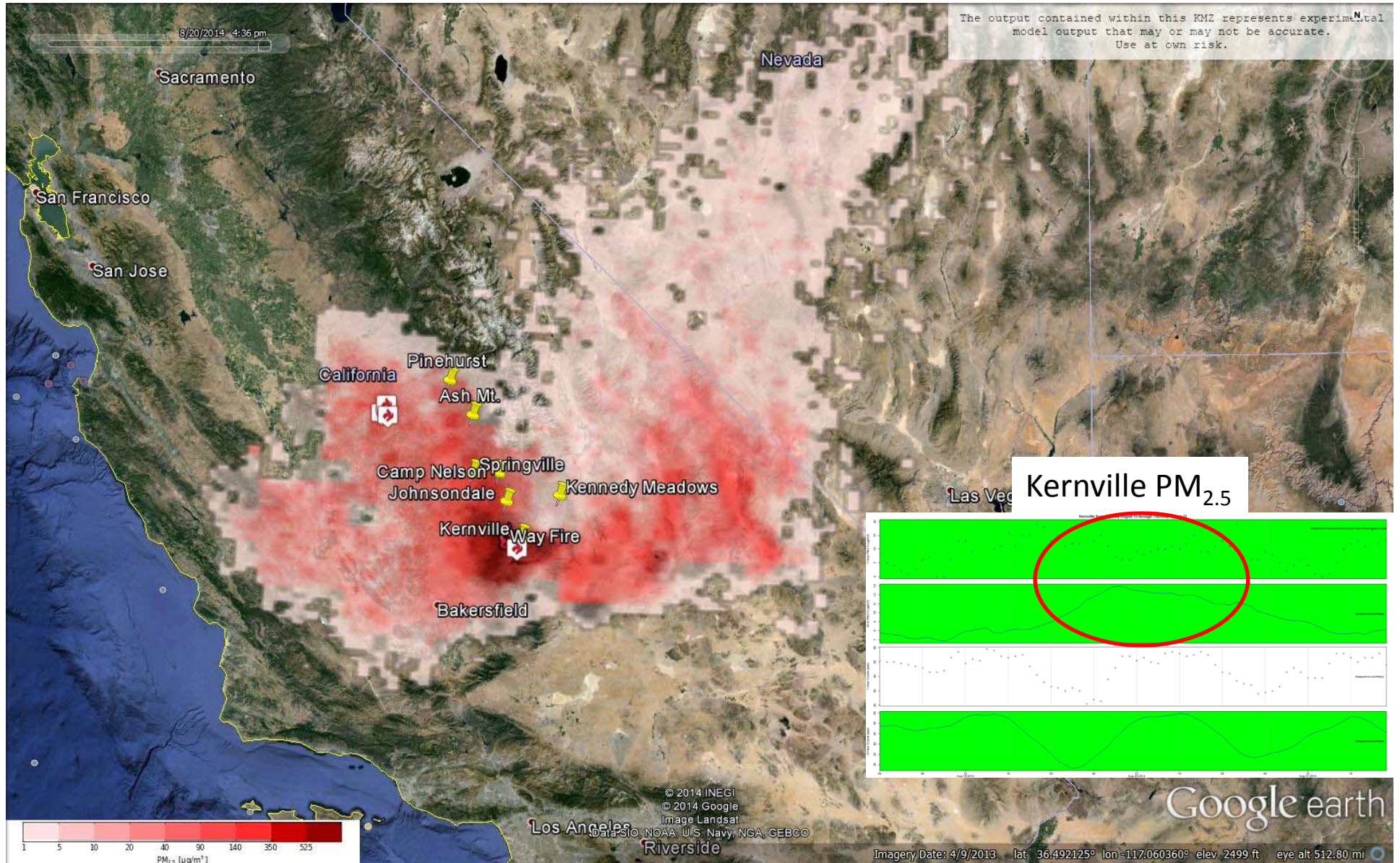
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26	27	28							

DECEMBER 2016

FEBRUARY 2017

NOTES:

Fine particulate matter distribution and impacts to air quality from wildland fire



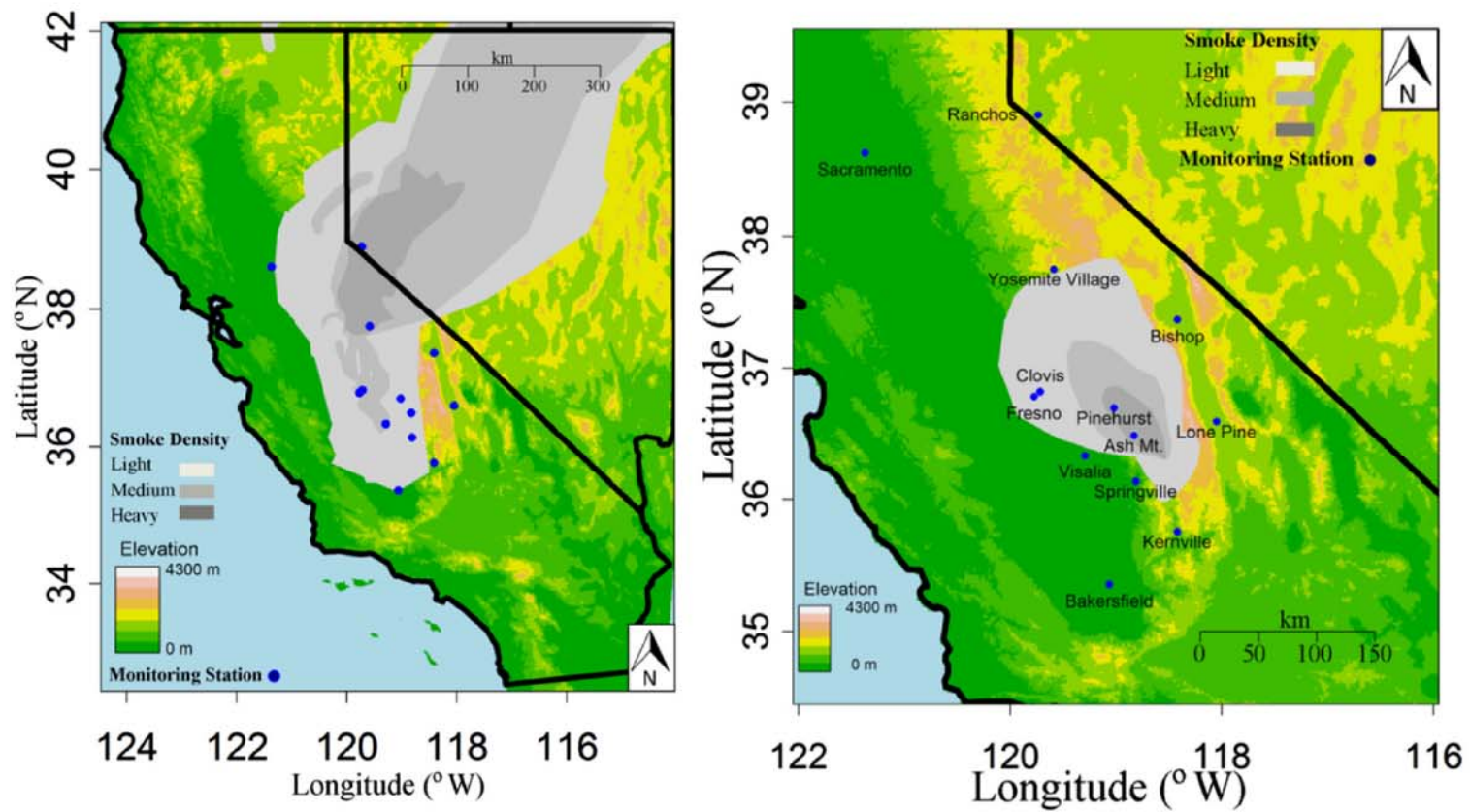
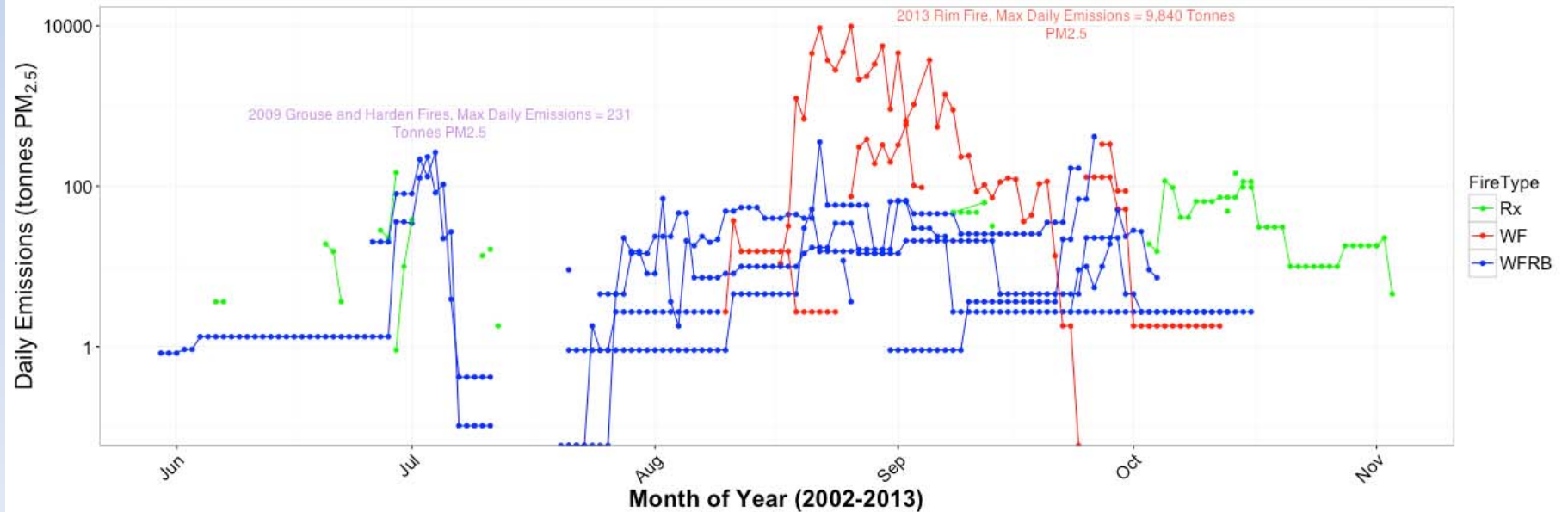
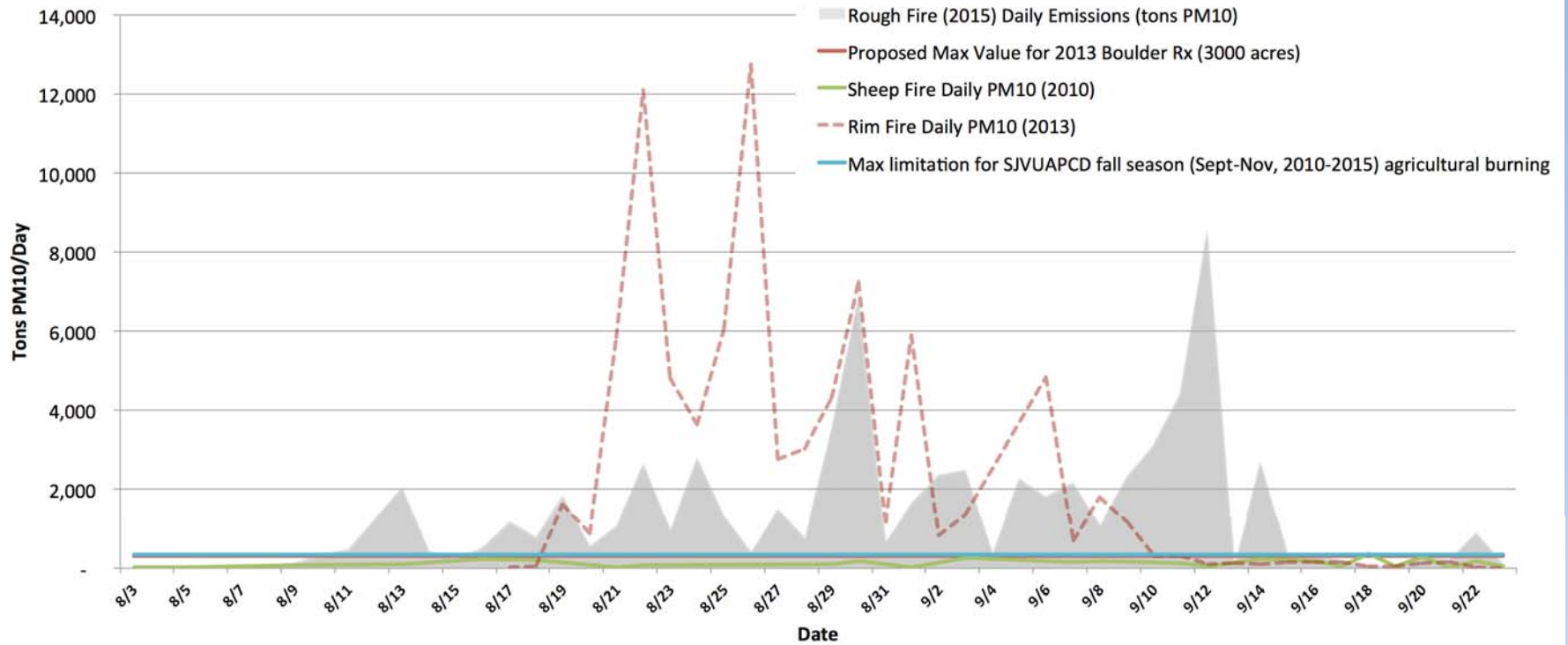


Fig. 1. Station locations and typical HMS smoke density plumes during (left) a high intensity full suppression wildfire (Rim Fire on 8/30/2013) and (right) a managed landscape level wildland fire (Lion Fire on 7/23/2011).

Preliminary Estimate of Daily emissions (PM10) from Rough Fire compared to other recent fires



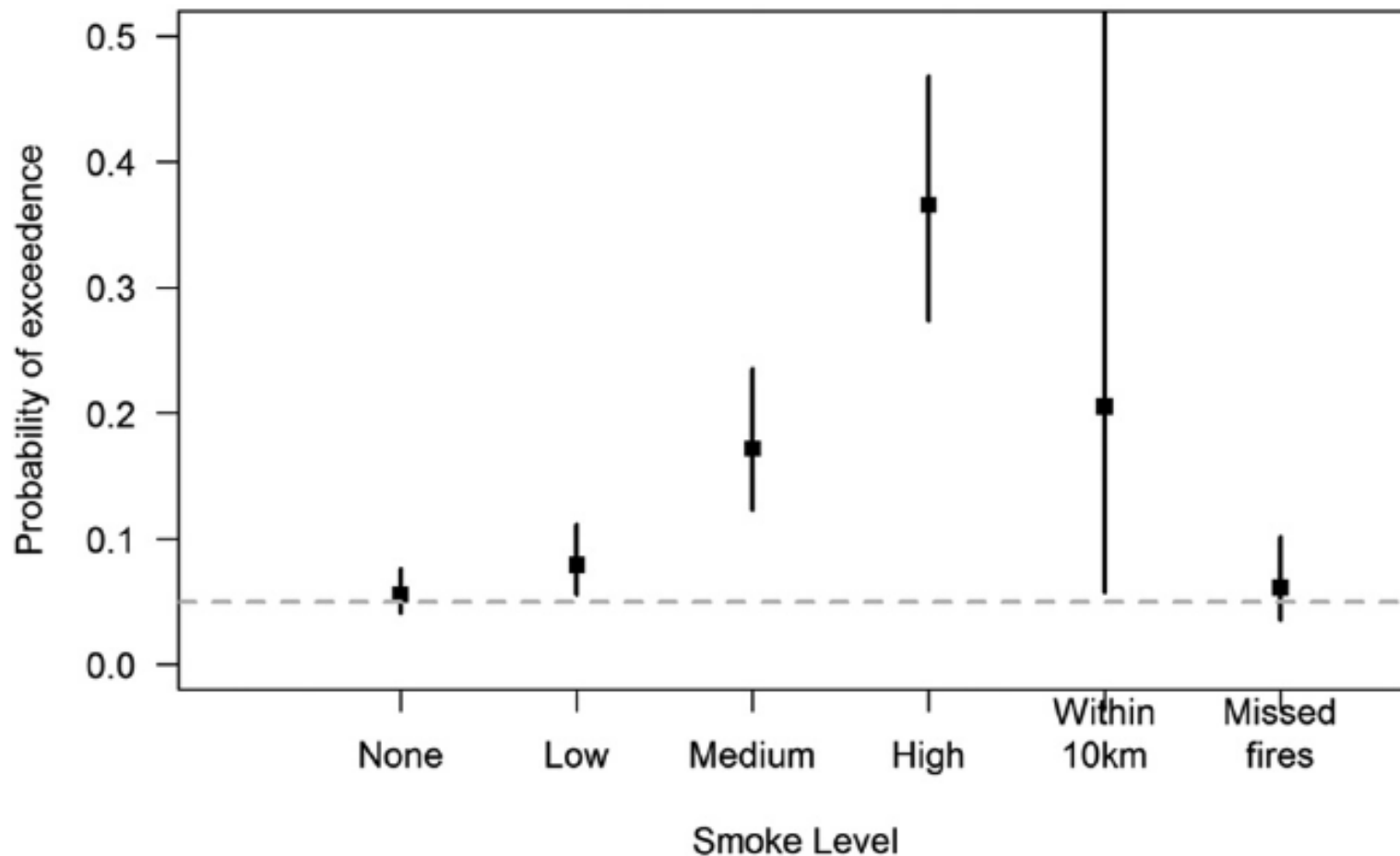


Fig. 3. Estimated probability of PM_{2.5} level significantly exceeds expected (and 95% confidence bars) for days with various levels of HMS smoke over and within 10 km of a site. The missed fires category refers to days with fire nearby but no observed HMS smoke.

Haiganoush K. Preisler, Donald Schweizer, Ricardo Cisneros, Trent Procter, Mark Ruminski, and Leland Tarnay. *A statistical model for determining impacts of wildland fires on Particulate Matter (PM_{2.5}) in Central California aided by satellite imagery of smoke*. Environmental Pollution 205 (2015) 340-349.

