



# Introduction

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Indian Health Service, California Area  
Office of Environmental Health & Engineering (OEHE)

## **Program Directors Meeting**

## **Emergency Preparedness: Drought and Fire**

Sacramento, CA. October 15, 2015

Dr. Charles Magruder, Sarah Snyder, Luke Schulte, and  
Chris Brady

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# Introduction

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Presentations on:

- Drought emergency
- Fire emergency
- Recent fire experience: clinic activities and next steps



# Drought



**Eradicated marijuana plants on the Tule River Indian Reservation**



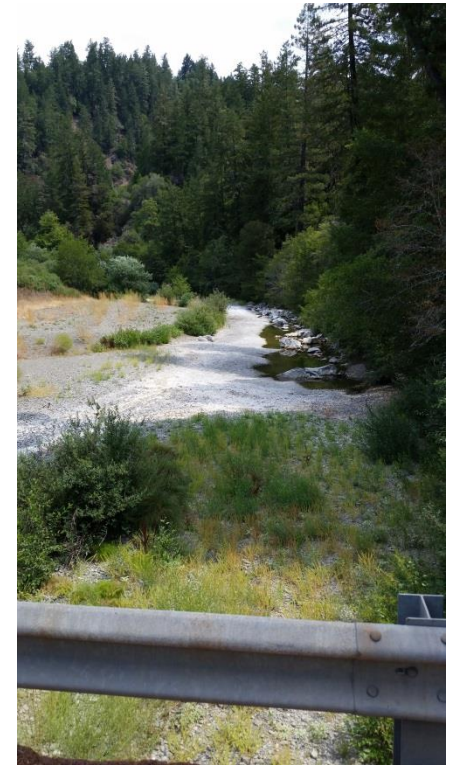
**Stony Creek - Grindstone Rancheria Water Source**



**Trinity River - Hoopa Reservation Water Source**



**Eradicated marijuana plants on the Yurok Indian Reservation**



**Gualala River - Stewarts Point Rancheria Water Source**



# Background

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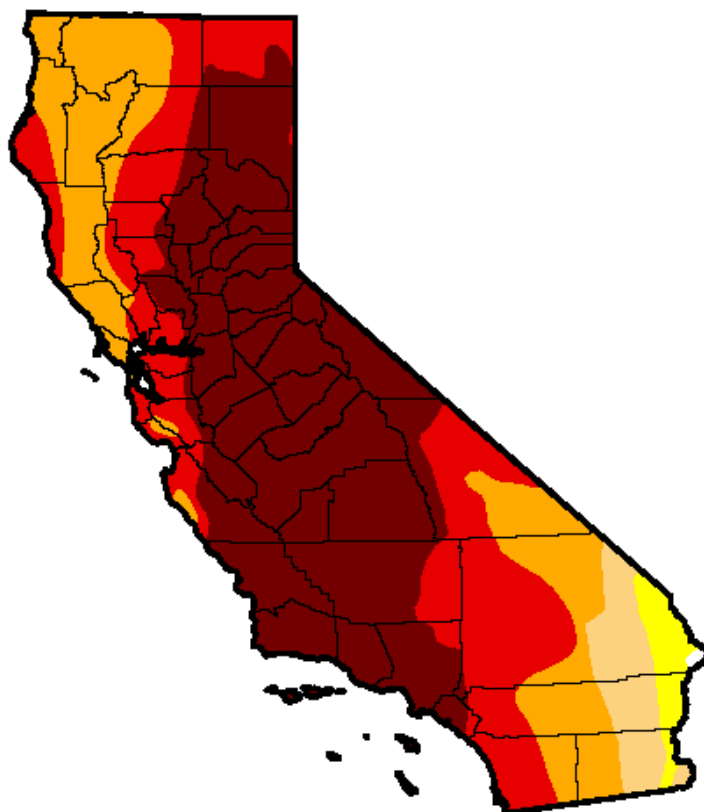
## Context

- Water years of 2012-14 stand as California's driest three consecutive years in terms of statewide precipitation.
  - On January 17, 2014, Governor Brown proclaimed a State of Emergency.
  - With the lowest snowpack on record and a lack of sufficient conservation, the Governor, on April 1, 2015, directed the State Water Board to implement mandatory water reductions in urban areas to reduce potable urban water usage by 25 percent statewide.
  - Currently, 46% of California is at exceptional drought conditions (highest severity).
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# Background

## U.S. Drought Monitor California



**October 6, 2015**

(Released Thursday, Oct. 8, 2015)

Valid 8 a.m. EDT

*Drought Conditions (Percent Area)*

	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
<b>Current</b>	0.14	99.86	97.33	92.36	71.08	46.00
<b>Last Week</b> 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
<b>3 Months Ago</b> 7/7/2015	0.14	99.86	98.71	94.59	71.08	46.73
<b>Start of Calendar Year</b> 12/30/2014	0.00	100.00	98.12	94.34	77.94	32.21
<b>Start of Water Year</b> 9/29/2015	0.14	99.86	97.33	92.36	71.08	46.00
<b>One Year Ago</b> 10/7/2014	0.00	100.00	100.00	95.04	81.92	58.41

### Intensity:

D0 Abnormally Dry	D3 Extreme Drought
D1 Moderate Drought	D4 Exceptional Drought
D2 Severe Drought	

*The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.*

**Author:**

David Miskus

NOAA/NWS/NCEP/CPC



<http://droughtmonitor.unl.edu/>



# Activities

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- Initial and periodic vulnerability/risk assessments of Tribal water systems.
  - Develop template and provide outreach on a *Drought Contingency Plan*.
  - Coordinate with State and Federal agencies on funding for drought-related projects.
  - Coordinate with State and Federal agencies on handbook for emergency drinking water supply.
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# Tribal water systems at moderate risk due to drought conditions:

**Updated July 20, 2015**– Updates will be made as conditions change and information becomes available.



Map #	Tribe	System Name	# of Indian Homes
10	Fort Bidwell	Fort Bidwell community water system	48
7	Pit River	Montgomery Creek	10
15	Cortina	Cortina Band of Winton System	6
17	Kashia Band of Pomo Indians	Stewarts Point CWS	15
7	Pit River	XL	18
13	Enterprise Rancheria	Eagle Crest Estates	13
26	Santa Rosa Reservation	Santa Rosa Water System	36
11	Sherwood Valley	City of Willits	35
4	Karuk Tribe	Somes Bar	2
27	Pauma	Pauma	60
11	Sherwood Valley	Mitomkai (Eastside Ranch-Lockhart)	15
4	Karuk Tribe	Orleans CSD	51
22	Cold Springs	Coyote Drive System	7
16	Manchester/Pt Arena	Pt Arena Side	58
20	Tuolumne	Tuolumne System	76
22	Cold Springs	Main	37

**Total Systems to Date = 16**



# Tribal water systems at high risk due to drought conditions:



*Updated July 20, 2015– Updates will be made as conditions change and information becomes available.*

Map #	Tribe	System Name	# of Indian Homes
11	Sherwood Valley	Original Sherwood Valley Rancheria	16
5	Yurok	Owl Creek/Tulley Creek	8
5	Yurok	Kepel	17
5	Yurok	Wautek (aka Johnson's Village)	14
12	Redwood Valley Rancheria	Redwood Valley County Water District	31
6	Hoopa Valley Tribe	Hoopa CWS	746
14	Coyote Valley	RDWVLY County Water District	33
24	Tule River	Main	282
24	Tule River	Cow Mountain	9
10	Grindstone Rancheria	Grindstone CWS	51
24	Tule River	Apple Valley	9
21	Big Sandy	Big Sandy CWS	46

**Total Systems to Date = 12**





# Drought Contingency Plan Template

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## Drought Contingency Plan Public Water System

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### Name of Tribe/Band

Address of Tribe/Band  
P.O. Box XXX  
City, California 95555

### Name of Tribal Utility Department/Water Department

Address of Tribal Utility Department/Water Department  
P.O. Box XXX  
City, California 95555

### Name of Tribal Public Water System

Public Water System ID Number: 1234567

Date [00/00/2014]

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### Table of contents

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Edit the following listing depending on whether relevant articles are contained within final edited section or not.

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The Drought Contingency Plan contains the following sections:

1. Declaration of policy, purpose, and intent
2. Drought task force
3. Authorization
4. Definitions
5. Previous water shortage conditions
6. Criteria for initiating and termination of drought response stages
7. Coordination with regional partners
8. Public involvement
9. Public education and notification
10. Summary inventory of water supply and demand
11. Determining if a water shortage is imminent
12. Triggering criteria and stages of action
13. Response actions
14. Water use allocations
15. Enforcement
16. Variances
17. Revenue and expenditure analysis
18. Mechanism for determining actual water use reductions
19. Drought scenario



# Drought Contingency Plan Template

- Tribes customize template according to community situation
- Develop system-specific drought triggers and response actions

## 1. Declaration of policy, purpose, and intent

### 1.1. General

In order to conserve the available water supply and protect the integrity of water supply facilities, with particular regard for domestic water use, sanitation, and fire protection, and to protect and preserve public health, welfare, and safety and minimize the adverse impacts of water supply shortage or other water supply emergency conditions, the [ ] [name of Tribe/Band] hereby adopts the following regulations and restrictions on the delivery and consumption of water through an ordinance or resolution.

The Drought Contingency Plan (Plan) is a framework of forward-leaning planning for scenarios and objectives, managerial and technical actions, and potential response systems in order to prevent, or better respond to, a drought-related emergency or critical situation. The overall goal of the Plan, and the contingency planning process, is to facilitate rapid emergency response. The intention of the Plan is to be functional, flexible, and easy to implement, and also serve as a tool for maintaining control over the events or limiting the risk of loss of control. The Plan should be periodically updated.

The primary focus is placed on best management practices to manage water use demand, while evaluating options for alternative water supply sources. Water uses regulated or prohibited under the Plan are considered to be non-essential and continuation of such uses during times of water shortage or other emergency water supply condition are deemed to constitute a waste of water which subjects the offender(s) to penalties as defined in this Plan.

### 1.2. Water use priorities

The risks to public health from water shortages could be high and include issues of water quality, water quantity, sanitation, and hygiene for personal use and food preparation. As a result of this, the Plan establishes the following priorities for use in developing demand reduction programs and allocations during a water shortage emergency. Priorities for use of available water, from highest to lowest priority, are:

1. Health and safety: residential home interior uses, sanitation, and fire fighting
2. Commercial, industrial, and governmental: maintain jobs and economic base
3. Existing landscaping: especially trees and shrubs
4. New demand: projects without permits when shortage is declared

### 1.3. Application

The provisions of this Plan shall apply to all customers and property utilizing water provided by the public water system.

## 2. Drought task force

A drought task force was created by the Tribe/Band in order to develop this Plan and to assist in further developing and implementing effective drought monitoring, mitigation, and response actions. The drought task force consists of representatives from the following:

- [ ] [name of tribal office or official]



# Drought Project Funding

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- In 2015, the IHS funded eight drought-related projects for a total of \$3,048,905
- Other agencies that provided funding include:
  - State WRCB
  - EPA-DWTSA
  - HUD ICDBG-IT
  - USDA/RD ECWAG



# Drought Project Funding

Tribe	System Name	Number of Indian homes	Funded interventions for part of total need	Funding agency/source	Funding amount
Sherwood Valley	Original Sherwood Valley Rancheria	16	CA-14-T44: Sherwood Valley Emergency Water. Limited success locating additional supply	IHS	\$52,000
Yurok	Owl Creek	8	CA-12-M69: YK-McCoy Water Improvements	IHS	\$137,900
Yurok	Kepel	17	CA-14-Y05: Yurok Water Stations and FY15: DRT YUOK Potable Water Truck	State WRCB	\$258,208
Yurok	Wautec (aka Johnson's Village)	14	CA-15-E41: DRT YUOK Wautec Water Improvements	EPA-DWTSA	\$700,100
Redwood Valley Rancheria	Redwood Valley County Water District (NT)	31	CA-15-N03: DRT Redwood Valley Community Well	IHS	\$405,000
Fort Bidwell	Fort Bidwell community water system	48	CA-15-N04: DRT FT Bidwell Watermeter, Watermain, and Well Controller Replace	IHS	\$634,000
Hoopa Valley Tribe	Hoopa CWS	746	DRT Hoopa Ozone Treatment Water System (EPA-Hoopa direct grant), and CA-15-T51	EPA-DWTSA and IHS	\$371,700
Tule River	Main	282	CA-04-L54: Tule River water system upgrades. Intake upgrades, controls, and well locating.	IHS, EPA-DWTSA	\$123,806
Santa Ysabel	Main	65	CA-15-C09: DRT SANTA YSABEL Main System Connection of Backup Well	HUD ICDBG-IT	\$335,500
Pit River	Montgomery Creek	10	CA-14-M95: PR Mont. Creek Wtr Source and FY15: PR Mont Creek Booster and Trtmt Bldg	IHS	\$297,000
Ione Band of Miwoks	Ione CWS	13	CA-14-T42: Ione water supply improvements - emergency	IHS	\$10,300
Grindstone Rancheria	Grindstone CWS	51	CA-15-Y08 and CA-14-T46: Grindstone Emergency Water Source and Intake	IHS and USDA/RD ECWAG	\$629,000
Cortina	Cortina Band of Wintun System	6	USDA/RD Cortina water system improvements	USDA/RD	\$144,000
Enterprise Rancheria	Eagle Crest Estates	13	CA-14-M98: Enterprise - Trailer Park Water Imp. Currently under design.	IHS	\$338,000
Big Sandy	Big Sandy CWS	46	CA-15-Y09: Big Sandy Water Well Improvements	USDA/RD	\$494,000
La Posta	Upper System	8	CA-15-E51: DRT LA POSTA Upper Sys Tank Rehabilitation	EPA-DWTSA	\$258,200
Pauma	Pauma	60	CA-15-E50: DRT PAUMA Small Tank Replacement	EPA-DWTSA	\$264,000
Sherwood Valley	Eastside Ranch-Lockhart	15	CA-14-B87: Sherwood Valley Emergency water line extension	IHS	\$100,500
Smith River Rancheria	Howonquet	46	CA-15-E39: DRT Smith River Water System Inter-Tie	EPA-DWTSA	\$96,000
Yurok	Klamath	45	CA-15-N02: DRT YUOK Klamath Well Replacement	IHS	\$213,375
Yurok	Weitchpec	27	CA-15-Y07: DRT YUOK Weitchpec Well	State and IHS	\$292,100



# Planning Guidance – Emergency Drinking Water Supply

- Ongoing Federal and State coordination meetings for emergency water supplies.

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## Drought Planning Guidance Emergency Drinking Water Supply For California Indian Tribes

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Prepared by California State and Federal Agencies

\*\*\* DRAFT \*\*\*  
September 2015





# Planning Guidance – Emergency Drinking Water Supply

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Coordinating state and federal agencies include:

- California Office of Governor/Office of Tribal Advisor (Cal OTA)
  - California Governor's Office of Emergency Service (Cal OES)
  - California State Water Resources Control Board (Cal DFA)
  - California Department of Water Resources/Tribal Policy Advisor (Cal DWR)
  - U.S. Army Corps of Engineers/Sacramento District (USACE)
  - U.S. Department of Agriculture/Rural Development (USDA)
  - Office of the Assistant Secretary for Preparedness and Response (ASPR)
  - Indian Health Service/California Area (IHS)
  - U.S. Department of Housing and Urban Development (HUD)
  - U.S. Department of the Interior/Bureau of Indian Affairs/Pacific Region (BIA)
  - Bureau of Reclamation/Mid-Pacific Region (BOR)
  - U.S. Environmental Protection Agency/Region IX (EPA)
  - U.S. Geological Survey/Pacific Regional Directors Office (USGS)
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# Planning Guidance – Emergency Drinking Water Supply

**Coordination:** A critical aspect for an emergency water supply is that each agency has an understanding of all the agencies' roles in the response.

**Table 1: State and county agency drinking water functions for drought emergencies**

State/County Agency	Role	Drinking Water Functions
County OES	Primary	Provision of emergency drinking water
Cal OES	Primary	Coordination of emergency services
Cal DFA	Primary	Provision of emergency drinking water
Cal OTA	Support	Coordination and advocacy
Cal DWR	Support	Coordination <sup>(1)</sup>

**Table 2: Federal agency drinking water functions for drought emergencies**

Federal Agency	Role	Drinking Water Functions
IHS	Primary	Coordination and provision of emergency drinking water <sup>(1)</sup>
USDA	Primary	Provision of emergency drinking water <sup>(1)</sup>
EPA	Primary	Coordination and technical assistance <sup>(1)</sup>
HUD	Support	Projects for imminent health threats <sup>(1)</sup>
USACE	Support	Technical assistance
USGS	Support	Technical assistance
BOR	Support	Technical assistance
BIA	Support	Technical assistance
ASPR	Support (Primary*)	Resources for a public health emergency and medical disaster <sup>(2)</sup>



# Planning Guidance – Emergency Drinking Water Supply

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Guideline include:

- Flowchart for emergency water supply
  - Maps of Cal OES operational area assignments
  - Resource summary sheets of state and federal agencies
  - Emergency drinking water supply procurement and distribution planning guide
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- Finalize: October 23



# IHS California Area Drought Website

**California Area**  
INDIAN HEALTH SERVICE

[CA Home](#) [CA Site Map](#) [CA Member Portal Access](#)

HEALTH PROGRAMS | TRIBAL CONSULTATION | NEWS & EVENTS | ABOUT US | OFFICES | FAQs

[Home](#) [Offices](#) [Office of Environmental Health & Engineering \(OEHE\)](#) [Division of Sanitation Facilities Construction \(DSFC\)](#) [Drought 2015](#)

[Contact Information - OEHE Staff](#)  
[Division of Environmental Health Services \(DEHS\)](#)  
[Division of Health Facilities Engineering \(DHFE\)](#)  
**[Division of Sanitation Facilities Construction \(DSFC\)](#)**  
[Drought 2015](#)  
[DSFC Focus](#)  
[Healthy Homes](#)

## Drought 2015

### Office of Environmental Health and Engineering (OEHE)

With the release of the emergency drought declaration by the state of California, the Indian Health Service/California

Area Office (IHS/CAO) is concerned that tribal community water systems could be impacted by one of the driest winters on record in California. Precipitation in January across the Northern Sierra -- a region crucial to statewide water supplies -- was just 20 percent of average.

### Division of Sanitation Facilities Construction

#### Drought contingency planning tools/resources:

- [Drought Assessment Form for Tribal Drinking Water Systems](#) (PDF)
- [Map of California Tribal Water Systems at Highest Risk Due to Drought Conditions](#) (PDF)
- [Drought Contingency Plan TEMPLATE](#) (DOCX)
- [List of local Office of Emergency Services by County](#) State of California, Offices of Emergency Services
- [Free California Drinking Water Workshops](#) (PDF) Rural Community Assistance Corporation
- [Emergency Community Water Assistance Grants \(USDA\)](#) (PDF) US Department of Agriculture
- [US Bureau of Reclamation Water Shortage Contingency/Drought Planning Handbook](#) (PDF) US Bureau of Reclamation
- [List of California licensed water haulers](#) (PDF) State of California, Department of Public Health

#### Public health tools/resources:

- [Emergency Preparedness - Hospital Water Disruption Best Practices](#) California Hospital Association
- [When Every Drop Counts: Protecting Public Health During Drought Conditions](#) (PDF) Centers for Disease Control and Prevention
- [Public Health and Drought](#) (PDF) Centers for Disease Control and Prevention





# IHS Regional Contact Information

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**IHS office locations and contacts:** Listed below are the Indian Health Service office locations and contacts. Please contact the office nearest you.

Location	Primary contact name	Phone number
Arcata Field Office	Barry Jarvis	707-822-1688
Redding District Office	Andy Huray	530-246-5339
Ukiah Field Office	Charles Thompson	707-462-5314
Sacramento District Office	David Mazorra	916-930-3960
Clovis Field Office	Matt Mergenthaler	559-322-7488
Escondido District Office	Sean Bush	760-735-6880

For additional information, please see the IHS California Area website at: <http://www.ihs.gov/california/index.cfm/about-us/field-offices/>

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# FIRE RESPONSE

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The Role of California Area Office of  
Indian Health Service

# IHS-OEHE DISASTER SUPPORT

**Financial Assistance-** Do NOT receive annual appropriations

- SFC can request access to emergency funds from HQ
  - Purchase supplies / equipment
- Project TransAM
  - Example of supplies: tents, cots, sleeping bags, portable water treatment, ambulances, handicapped assessable 15 passenger vans, N95, sand bags etc.



## **Expertise in Facility Assessment and Reconstruction**

- Technical assistance for:
  - Damage assessments
  - Engineering and construction cost estimates
  - Writing /reviewing scope of work
  - Defining technical specification and/or drafting solicitation packages



# IHS-OEHE DISASTER SUPPORT

## During a Disaster

- EHO's serve as a resource to link into services
  - EM POC for National IHS Disaster Preparedness Group.
- Conduct pre/post shelter assessments
- Ensure food safety during shelter operations
- Post home assessments (EHO & SFC)
  - HUD funding (mold assessments)

## Additional Information

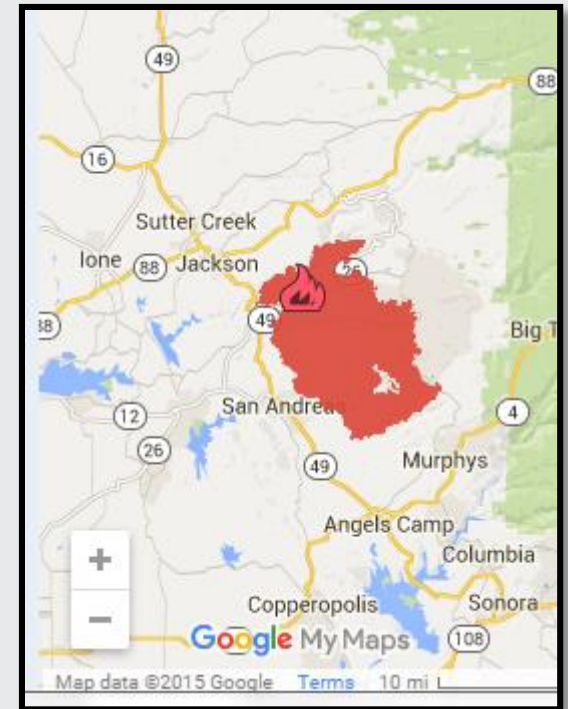
- USPHS Commissioned Officer Deployment
  - Activation by contacting Area Director
  - Readiness and Deployment Ops



# FIRE UPDATES

## Butte Fire

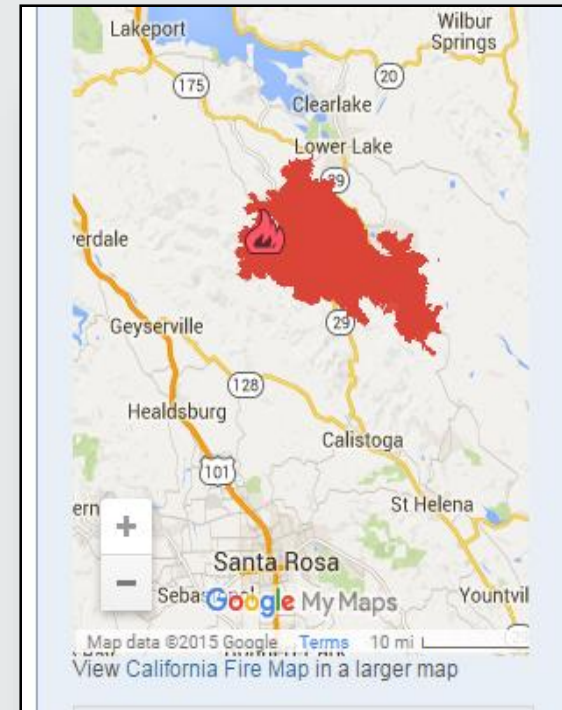
- Started September 9, 2015 @2:29pm.
- 2 fatalities reported, 1 injury
- Burned
  - 70,868 acres
  - 860 structures (475 residences)
- Indian Health Service Activities
  - Provided 340 N95 mask to the clinic
  - Offered assistance to MACT
  - Offered assistance to the Jackson Shelter



# FIRE UPDATE

## Valley Fire

- Started Sept 12, 2015 @6:45am
- 4 civilian fatalities & 4 fireman injuries
- Damage teams completed primary & secondary assessment
  - 76,067 acres & 1,958 structures
  - 1,280 homes
- Indian Health Service Activities
  - Site visit by SFC to assess recovery water/sewer needs
  - EHS staff have visited Big Valley Rancheria Gym and Twin Pines to offer assistance
  - Provided 960 N95 masks for the clinic to distribute
  - Attend daily conference calls to identify needs and offer assistance



# RECENT FIRE EXPERIENCES

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Clinic Activities  
and  
Next Steps

# HEALTH PERSPECTIVES

## *KEY PARTICIPANTS*

- Tribal clinics
    - *Lake County*
    - *MACT*
  - County Health Department (Lake)
  - State of California
    - *Cal OES*
    - *CA DPH*
    - *CA DHCS*
  - IHS CAO
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# SOME PROMINENT ACTIVITIES

- Establish communication
  - Ascertain response capabilities and resources of various organizations
  - Gain awareness of and develop solutions for issues
  - Initiate actions to address problems
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# KEY LESSONS LEARNED

- Some critical personnel have not had an opportunity to learn about emergency response standard procedures
  - Knowledge of services available from various organizations during an emergency is not widely known
  - In some instances, there may not be sufficient understanding of cultural perspectives in emergency response activities
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# NEXT STEPS

- Increased emphasis on clinic/local HD relationships and collaboration
- Ensure appropriate training for key individuals in pertinent organizations who may be involved in emergency response activities.
- Develop a document with contact information and descriptions of roles/services provided during an emergency response
- Create standard operating procedures for common emergency activities
- Identify all areas where cultural perspectives and landmarks need to be carefully addressed and develop appropriate educational efforts.