

Welcome to:

Conserving and Enhancing
Water Quality and Supply
across California's Forests and
Rangelands

- Audio on toll free conference line:
- (877) 536-5793
- Access code: 204798
- *We'll be starting at 9:00...*

FOREST AND RANGELANDS ASSESSMENT STEERING COMMITTEE

Conserving and Enhancing Water Quality and Supply across California's Forests and Rangelands



Fire and Resource Assessment Program
California Department of Forestry and Fire Protection

Meeting and Webinar
July 11, 2013

USFS Wildland Fire Training Center, McClellan, CA

Forest and Rangeland Steering Committee

- Public outreach for the next Assessment of California Forests and Rangelands, due in 2015
- FRASC meetings/webinars held thus far, on issues related to: Sustainable Forestry; Wildlife Habitat; Climate Change; Wildfire (see <http://frap.fire.ca.gov/assessment/frasc/frasc.html>)
- We want your views!

Agenda

9:00 – 9:30: Introduction and Overview

- Introductions, the FRASC process, meeting topic and goals
- Water Resources in the 2010 Assessment - overview

9:30 – 9:45: Criteria and Indicators preview

9:45 – 10:55: Panel Speaker Opening Remarks and Moderated Discussion

- Lorraine Flint (Research Hydrologist, USGS, California Water Science Center)
- Cajun James (Research and Monitoring Manager, Sierra Pacific Industries)
- Frank K. Lake (Research Ecologist, US Forest Service, PSW)
- Phil Saksa (Hydrologist, Sierra Nevada Adaptive Management Project Team)

10:55 – 11:05: Break

11:05 – 11:50: Open Group Discussion

11:50 – 12:00: Brief Meeting Recap

12:00 – 12:30: Lunch (we have sandwich order forms)

12:30 – 2:00: Criteria and Indicators for the Assessment (with Fraser Shilling, U C Davis)

FRASC Partners



Fire and Resource
Assessment Program (CAL FIRE)



USFS Pacific Southwest Region
State and Private Forestry



USDA Natural Resources
Conservation Service

Introductions



Some Ground Rules

All are welcome to freely share ideas

- *Listen to understand*
- *Speak to be understood*

Respectful comments and interactions

Encourage participation

Keep phones muted in the room

Webinar participants, keep phone muted unless you want to speak to the group

Water Issues in the last Assessment

Chris Keithley

Fire and Resource Assessment Program Chief

CAL FIRE

The 2010 Forest and Range Assessment Water Resources Chapter

Chris Keithley

Kelly Larvie

Department of Forestry and Fire Protection
Fire and Resource Assessment Program

FRASC Meeting

July 11, 2013

Water Supply and Quality

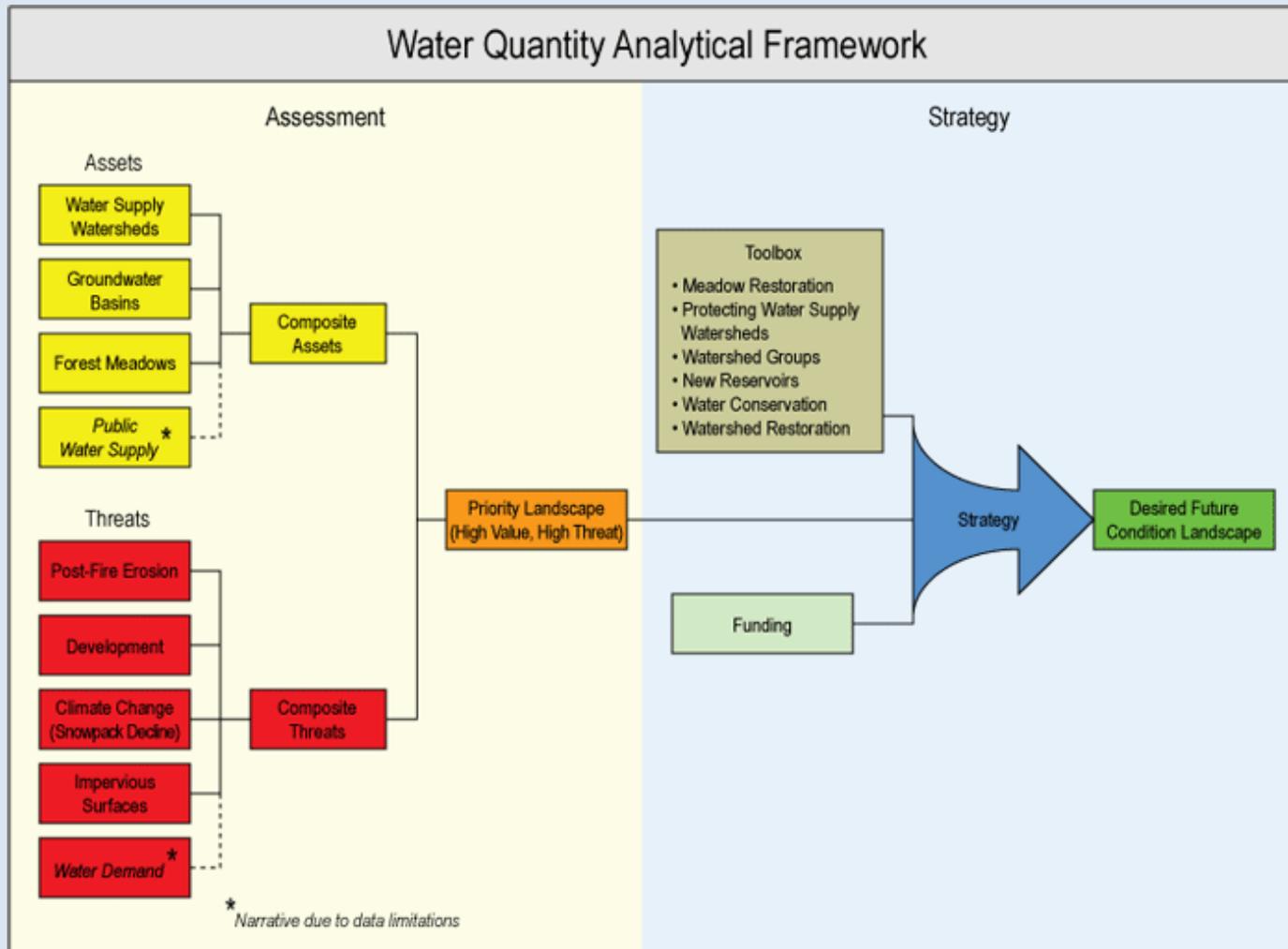
Water Supply

A spatial analysis was conducted to identify priority landscapes (PLs) where water supply would benefit from forest management designed to protect or enhance water resources.

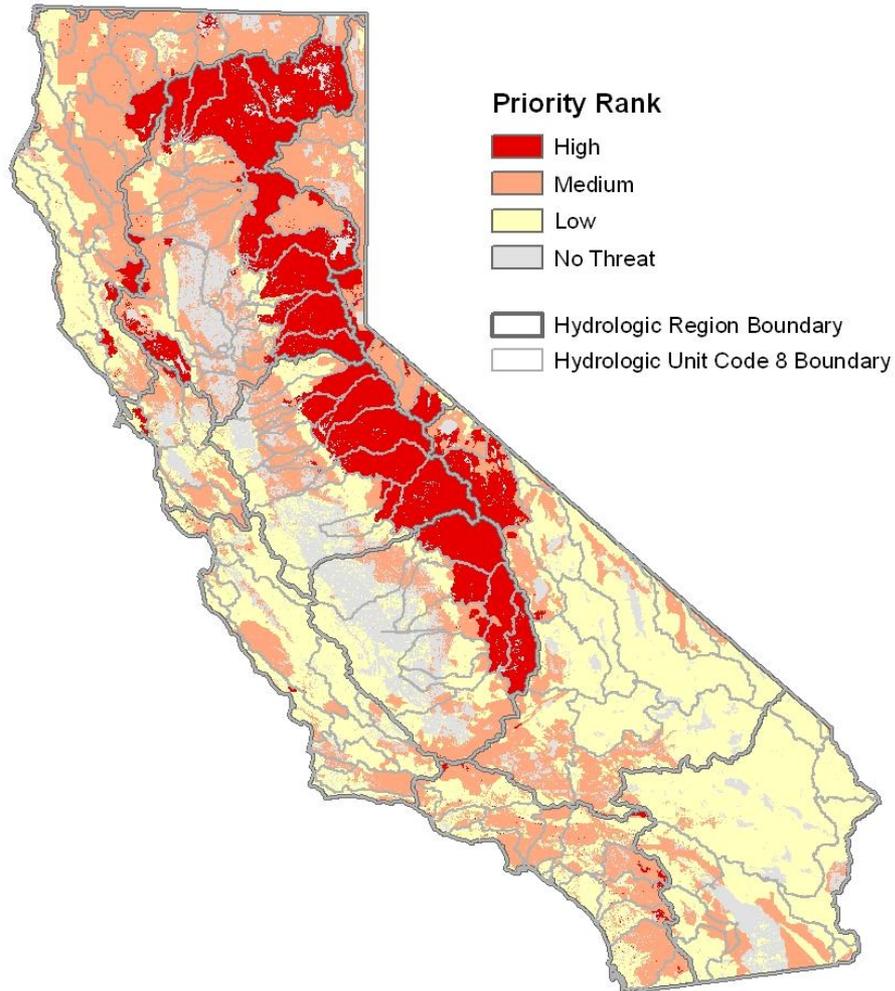
Water Quality

The analysis presented identifies locations where high value water assets in watersheds supporting a broad range of beneficial uses coincide with high risks that threaten water quality.

Water Supply and Quantity: Analytical Framework



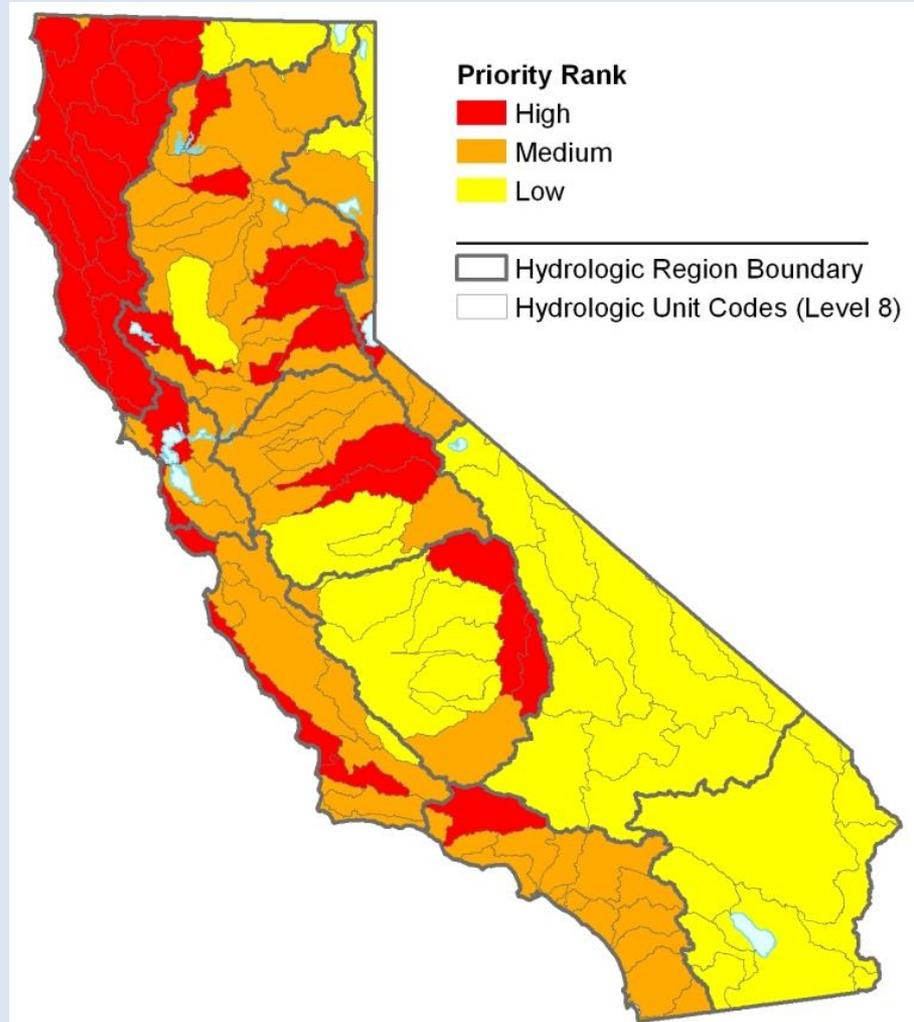
Water Supply Priority Landscape



Water Supply Key Findings

- *The upper watersheds in the Sierra and Cascades have the greatest concentration of high priority landscape (where high threat meets high supply value).*
 - this region is critical for water supply
 - threats are primarily from climate change, wildfire, and development
- *The North Coast bioregion also has substantial water supply assets.*
 - basins are predominately rain-fed
 - water supply impacts from climate change are probably less dramatic.
 - need to address storage capacity critical
- *Groundwater basins in the Central Valley bioregions are an abundant resource that are also threatened.*

Water Quality Priority Landscape



Water Quality Key Findings

Key Findings

- *Water quality impairments vary throughout the state; most pronounced in the North Coast where watersheds are critical for recovery of salmon.*
- *Watersheds across the Sierra include a mix of high and medium priority landscape; Lake Tahoe basin is of particular concern.*
- *Central coast and South Coast watersheds have much less forest management; post-fire erosion and forest health issues can affect water quality across this region.*

Water Resources Tools

- Watershed Groups & Landowner Stewardship
- Regulatory
- Watershed Restoration Grants
- Water Conservation
- TMDL Development & Implementation
- Integrated Regional Water Management Plans

Water Resources Existing Strategies

California Water Plan: Resource Management Strategies - Forest Management

Key Issues

Meadow Restoration
Riparian Forests
Fuels/Fire Management
Forest Management
Climate Change

Recommendations

Monitoring & Research
Coordination
Funding
Regulatory Requirements

<http://www.waterplan.water.ca.gov/strategies>

Criteria and Indicators for Assessment



Measures of Sustainable Use of Water Resources:
The State Water Plan

Fraser Shilling, PhD
UC Davis

Panel Speakers and Discussion

Moderator:

Chris Keithley

Panel Speaker

Lorraine Flint
Research Hydrologist,
US Geological Survey,
California Water Science Center

Panel Speaker

Dr. Cajun James

Principal Research and Monitoring Manager,
Sierra Pacific Industries

Panel Speaker

Dr. Frank K. Lake
Research Ecologist
USDA Forest Service
Pacific Southwest Research and
Experiment Station

Panel Speaker

Phil Saksa
Graduate Researcher in
Environmental Systems
Sierra Nevada Research Institute
U. C. Merced

Panel Question 1

Environmental Stressors

What stressors are most likely to threaten California's watersheds and where are they located (e.g., sediment and water temperature-North Coast, heavy metals-southern CA, etc.)?

Do we need to reconsider current watershed protection approaches or management approaches?



Panel Question 2

Headwater Source Areas

Headwater regions provide a reliable source of high quality drinking water throughout California.



Are there specific data and research needs that are not currently being addressed to better understand the hydrology of these systems and how land management practices affect stewardship?

Can management actions influence the timing and release of water in these headwater regions?



Panel Question 3

Research and Monitoring

What research and/or monitoring do you see as most important for the state to evaluate watershed health and track water resources?

Also, discuss any considerations that should be given to regional, state, and national reporting.



Panel Question 4

Prioritizing Watershed Restoration & Protection

What criteria or evaluation procedures should the state develop to better prioritize restoration or watershed protection needs?

Are there specific resources that are of greatest importance (e.g., listed anadromous salmonids, domestic water sources, mountain meadows, riparian forests...)?

Are there priority watersheds that should be a focus for investment?



Panel Question 5

Watershed Ecology and Ecosystem Services

California's landscape is a fire-adapted environment, but fire has been effectively removed from natural ecological cycles.

How can we re-integrate fire into watershed management to create forests that are fire-resilient, while also enhancing the full suite of ecosystem services watersheds provide?



Panel Question 6

Climate Change

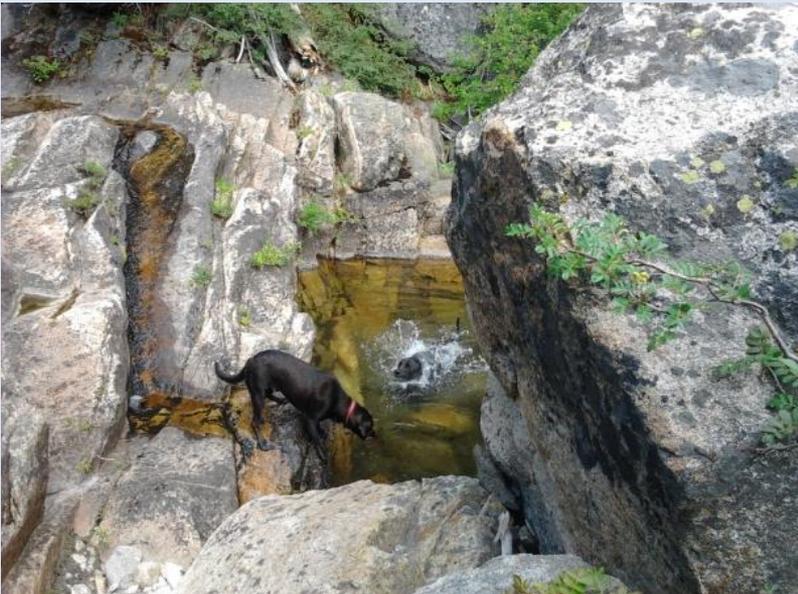
Climate change has the potential to greatly influence water resources across California.

How can the State use forest management to prepare for climate change, particularly related to water quantity/storage?



BREAK

Back at ~ 11:05



Open Group Discussion

Your turn!

***(if in the room, please wait for the phone mic;
if on the phone please mute when not talking)***

What are your views/concerns regarding these issues?

What should be covered with regard to wildfire in the next (2015) Forest and Rangeland Assessment?

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Brief Recap and Wrap-Up

A brief (and incomplete) quick turn-around recap of (some) major points raised

Any final Questions / Comments?

See you *October 10th*

Topic: Sustainable Recreation

Most of all: Thank you!

Coming up: Indicators for the 2015 Assessment

Stick around for the afternoon session led by Dr Fraser Shilling on developing indicators for the next Assessment.

We'll begin again here at 12:30.

The afternoon session webinar link:

<https://www2.gotomeeting.com/join/390435250>

Same phone conference line as now.