

# Public Information Meeting

*Hosted by staff of the Lahontan Water Board*

## Proposed Cleanup and Abatement Order

PG&E Hinkley Chromium Groundwater Cleanup



**Lauri Kemper, PE**  
Assistant Executive Officer

**Lisa Dernbach, PG, CHG, CEG**  
Senior Engineering Geologist

**Anne Holden, PG**  
Engineering Geologist

February 26, 2015  
Hinkley Senior and Community Center

# Purpose of Meeting

- Outline requirements of proposed Cleanup and Abatement Order (CAO)
- Answer questions
- Take written comments
- Discuss next steps



# Meeting Ground Rules

*Ground Rules are designed to keep discussions on track, focus on the topic and use our time efficiently.*

- Use common courtesy. Do not interrupt another speaker. Listen to each other and respect all views.
- Turn cell phones off. If you must take a call, do so outside of the meeting room.
- Give everyone the opportunity to participate. Time limits may be imposed where needed.

# Separation of Functions

## Advisory Team

### Duties:

Procedures for public participation, evidence submittals, public meetings, hearings

May propose changes to CAO based on their review and public comments

Advises Water Board members on CAO during hearing – Water Board members are the “Deciders”

Executive Officer, Patty Kouyoumdjian

Legal Team:  
State Water Board  
Office of Chief Counsel

Technical Staff:  
Doug Smith  
Richard Booth

## Prosecution Team

### Duties:

Develops proposed CAO

Responds to comments

Submits evidence to support CAO requirements

Assistant Executive  
Officer, Lauri Kemper

Legal Team:  
State Water Board  
Office of Enforcement

Technical Staff:  
Lisa Dernbach  
Anne Holden

## Think “Supreme Court”

**Water Board Members**  
(Panel of Judges)

**Water Board’s Advisory Team**  
(Court Clerks)

**Prosecution Team**  
(Plaintiffs)

**PG&E**  
(Defendants)

**Public**  
(Interested Persons)

# Cleanup and Abatement Order

- January 21, 2015 –draft for public and PG&E comment released
- Consolidates all existing enforcement orders
- Requires:
  - Cleanup by specific dates
  - Continued plume delineation
  - Ongoing monitoring
  - Replacement water
  - Reporting and evaluation
  - Independent consultant for community

# Cleanup Requirements

1. Ongoing cleanup of southern plume; sets dates for cleanup below 50 ppb (2021) and 10 ppb (2026)
2. Western finger cleanup to background by specific date (July 2016)
3. Lower aquifer cleanup to non-detectable concentrations (Dec 2018)
4. Requires plans to cleanup 'hot spots' in the northern area (18 or 36 months)

(see wall map for locations)

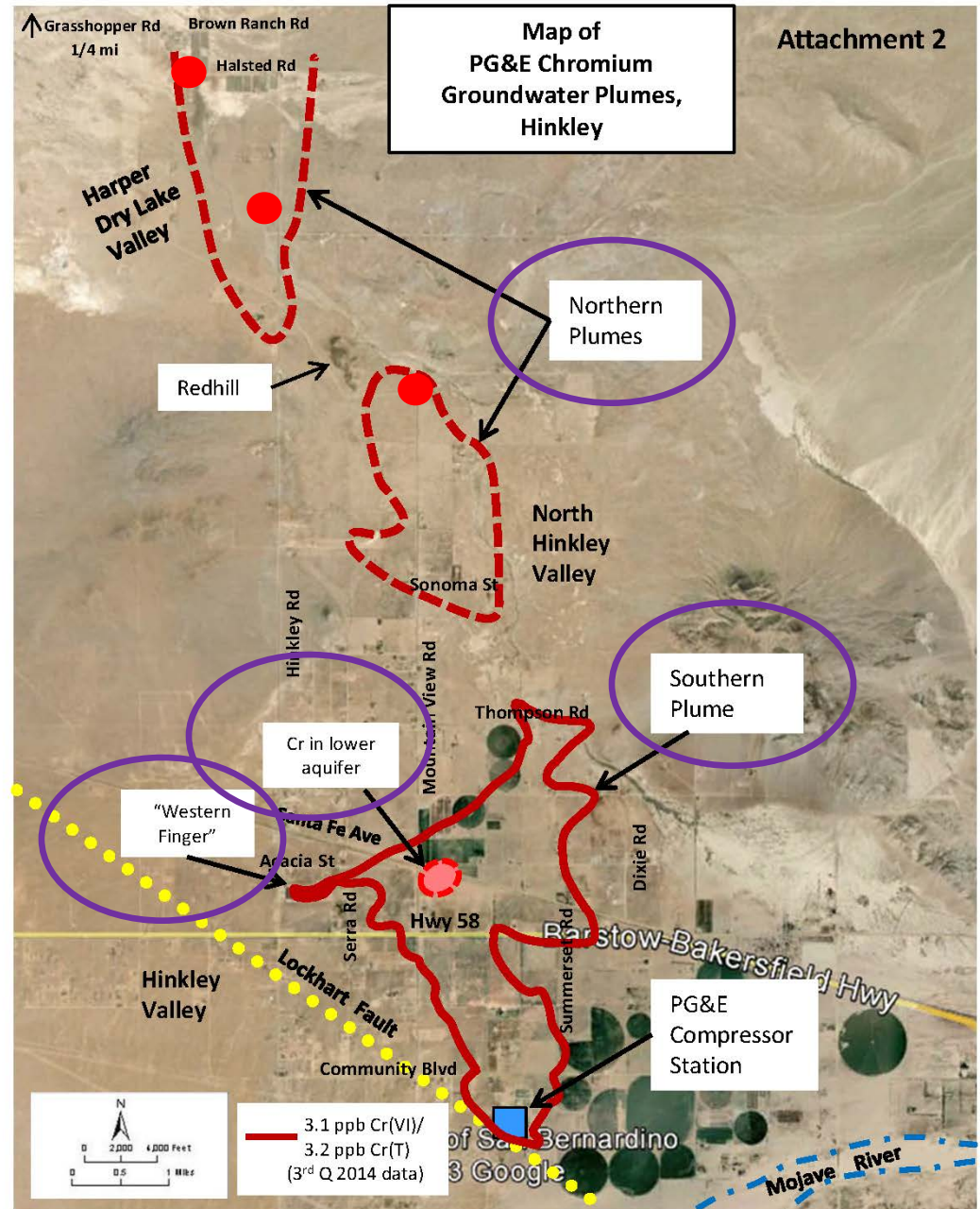
# CAO Plume Locations

Northern area plumes  
 ● Hotspots (Cr6 > 10 ppb)

Southern plume

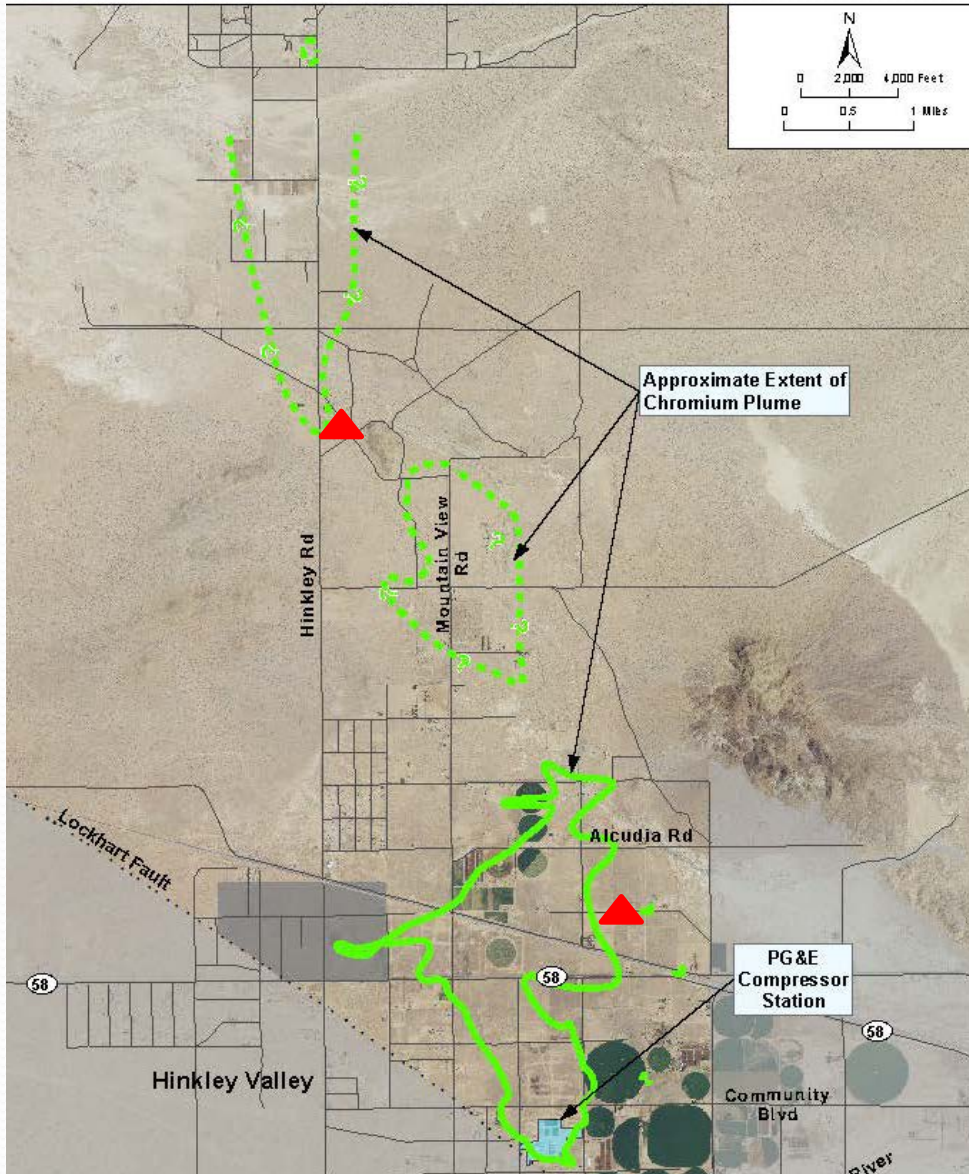
Lower aquifer plume

Western finger





# Plume Delineation

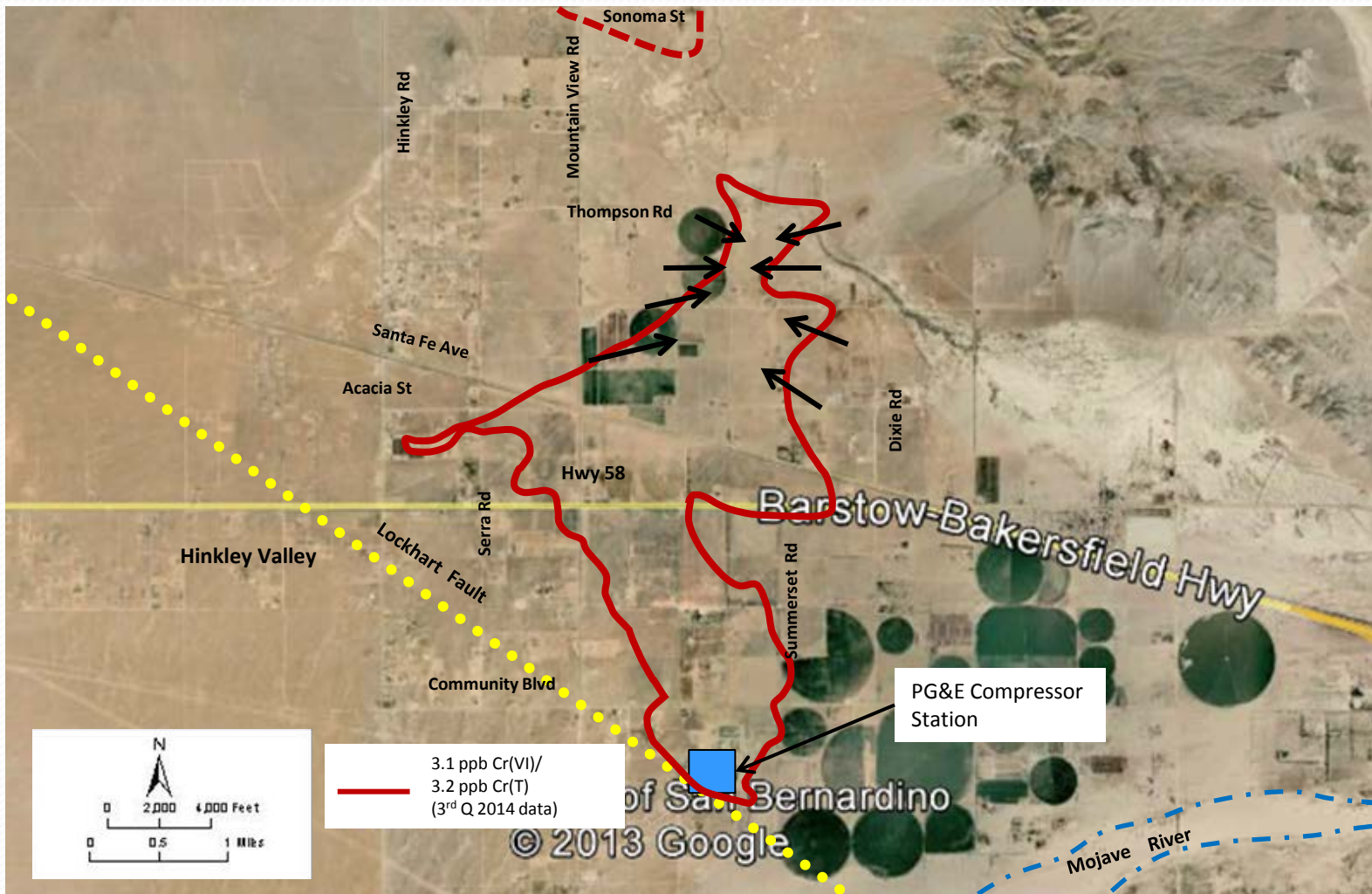


- Requires installation of new monitoring wells (**Red triangles** near Red Hill and Summerset/Acacia)
- Requires a plan to install new wells when access status changes

# Capture Metrics

- Current Capture Metrics to ensure no further migration of the southern plume.
- Water Board authorized pilot testing to adjust capture metrics southward. Results are expected in late April.
- As southern plume shrinks, Water Board wants ability to shift capture metrics to ensure plume does not migrate and allow PG&E to focus groundwater extraction and treatment in areas where chromium contamination exists.

# Area of Capture Metrics for Southern Plume



# Replacement Water

- **Required** when domestic well exceeds Cr6 Maximum Contaminant Level of 10 ppb
- **Replacement water plan** required if:
  - Domestic well shows increasing trend of chromium indicating likely exceedance of Cr6 MCL within one year, or
  - Domestic well reaches 8 ppb Cr6
- Existing Agricultural Treatment permit requires replacement water sooner if PG&E's activities cause chromium increases in nearby private wells



# Independent Consultant

- Requires ongoing PG&E funding and support for independent consultant (IRP team)
- Sets minimum expectations for independent consultants to provide education and technical review support for Hinkley community (or PG&E can provide alternative plan that provides equal effort and effectiveness)



# Independent Consultant Activities

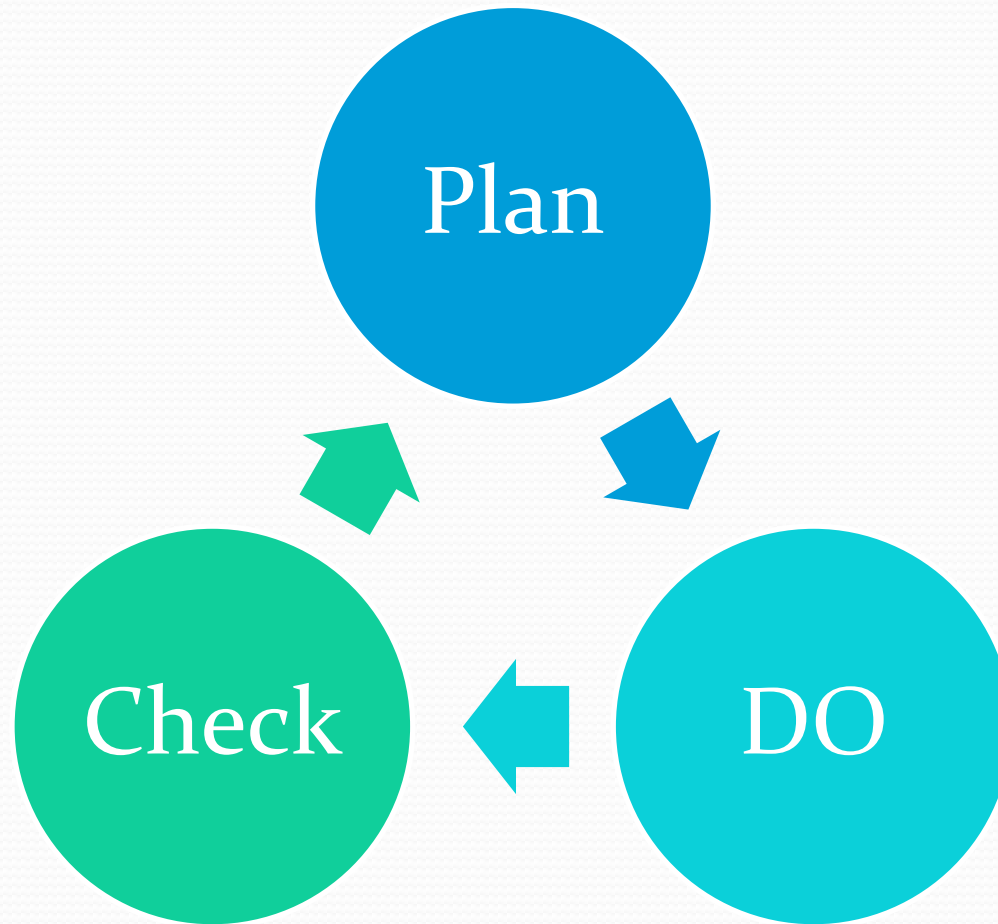
- Annual report to the Water Board on the independent consultant's efforts within the Hinkley community
- Minimum of six community newsletters each year
- Minimum of four public meetings held in Hinkley
- Availability for one-on-one communications with Hinkley residents (at least 100 hours annually)
- Technical reviews, written comments, presentations regarding Water Board orders, PG&E reports, USGS reports, other technical materials related to the chromium remediation (e.g., new cleanup technology)
- Outside expert on matter(s) of greatest concern to the community

# Reporting and Evaluation

- Ongoing groundwater monitoring in domestic wells and monitoring wells. New frequencies established
- Annual report to evaluate effectiveness of cleanup compared to estimates provided by PG&E. Recommend and implement minor adjustments to improve cleanup
- Four-year Evaluation Report – comprehensive comparison of cleanup results compared to predictions. Update modeling and predict future results. Recommend changes and expanded remediation as needed to improve and speed up cleanup



# Adaptive Management





# How to submit comments

Email to: **RB6enfproceed@waterboards.ca.gov**

Mail to: Lahontan Water Board, attention Sue Genera  
2501 Lake Tahoe Blvd.  
South Lake Tahoe, CA 96150

Fax to: 530-544-2271, attention Sue Genera

or, submit comments here tonight (comment cards available)

**Written comments are due March 13, 2015 by 5 pm**

# Next Steps

(Advisory Team will set actual schedule)

**By April 13, 2015:**  
Additional  
workshop date(s)  
announced

**Spring/Summer  
2015:** Workshop(s)  
to discuss  
comments on  
proposed CAO

**Summer 2015:**  
Release final  
proposed CAO &  
response to  
comments

**September 16,  
2015:** Water Board  
may consider  
adopting CAO at  
public meeting



# Questions and Discussion