The Hinkley Valley Has Lived with the Presence of the Cr6 Plume for Decades…But Now, the Community, (with Admitted Skepticism), Does Understand There is a Pathway to a Solution

"PG&E has for many years acknowledged with genuine regret its responsibility for its chromium contamination in the Hinkley community. PG&E is committed to working cooperatively with the Water Board to expeditiously clean up groundwater contamination resulting from PG&E's historical operations at the Hinkley Compressor Station."

~ PG&E, 2012

Remarks by Dr. Ian A. Webster, IRP Manager

At State Water Board Meeting, Barstow, CA, July 17, 2013

Contact: iwebster@projectnavigator.com or 714-388-1800

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Some Opening Notes from the Hinkley Plume IRP Manager.

- IRP = ***Independent*** Review Panel Manager
- My mission is *unbiased technical input*, based on my professional judgment
- I have been given total *autonomy* to pursue my mission
  - Supported by professional scientists, engineers and geologists
- Yes, I am paid ultimately via PG&E funding…but that does not sway my opinions
- In my opinion, the most appropriate, well balanced remedy for the Hinkley Plume combines:
  - Groundwater management for plume hydraulic containment
  - In place (i.e. *in situ*) treatment of highest Cr6 concentrations
  - Natural treatment (i.e. *ex situ* phyto) of lowest Cr6 concentrations
  - Appropriate long-term monitoring
  - Clearly established treatment goals (and interim check points)
  - An adaptive management engineering and regulatory culture

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The CAC selected the IRP Manager in early 2012.

Office space has been provided in the Community.

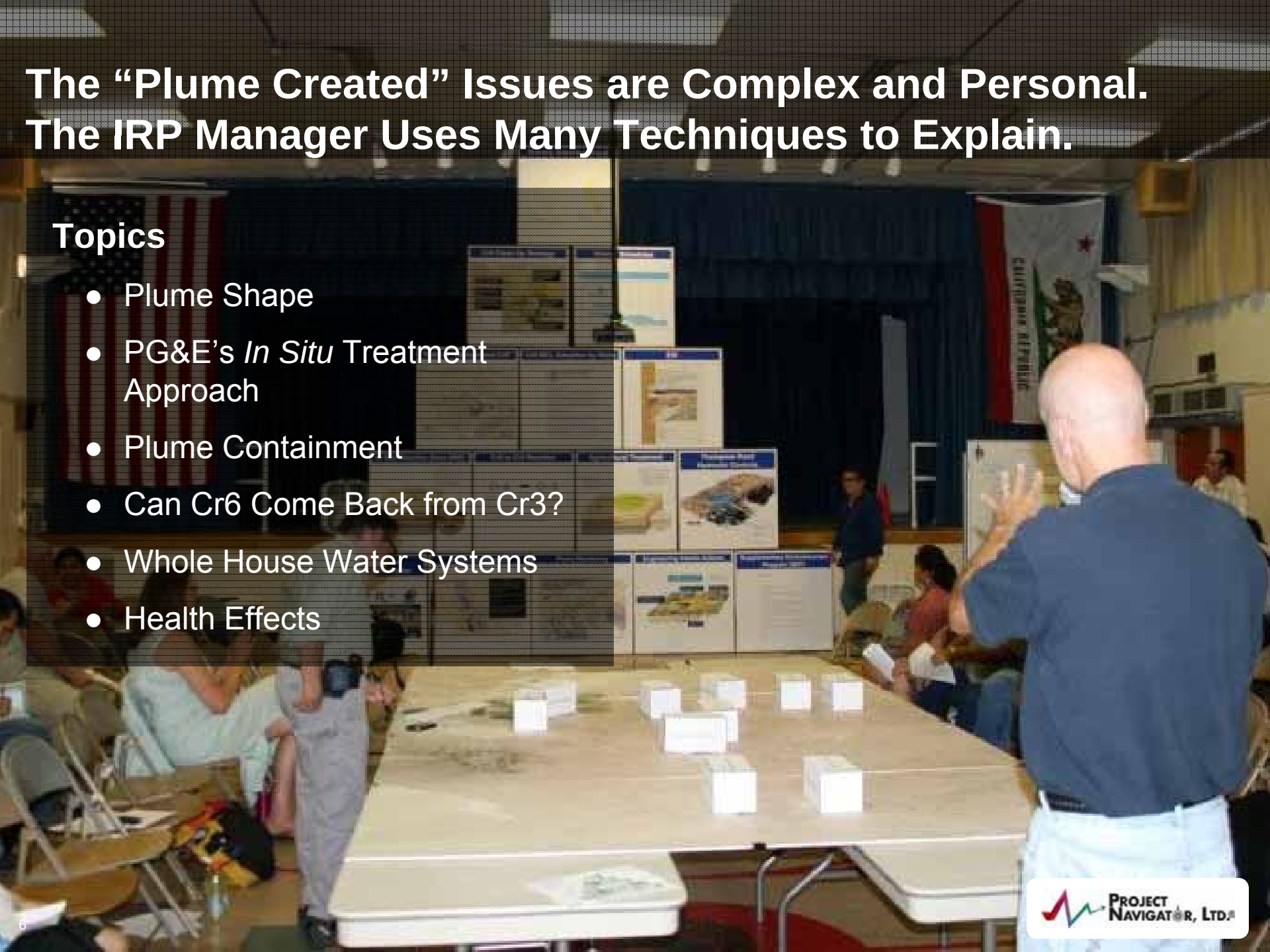
The CAC is the Interface Between Their Technical Advisor and the Community at Large.

CAC has met, debated and planned more than 50 times during past year.

IRP Manager Has Provided Technical Input at 15 Community Meetings Since 1st Q 2012.

Attendance ranges from 60 to 120 people.

The "Plume Created" Issues are Complex and Personal. The IRP Manager Uses Many Techniques to Explain.



Topics

- Plume Shape
- PG&E's *In Situ* Treatment Approach
- Plume Containment
- Can Cr6 Come Back from Cr3?
- Whole House Water Systems
- Health Effects

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The Lahontan Water Board Has Held Briefings Separately from the CAC and PG&E.

Topics

- IRZ and Mn migration
- The EIR
- Community Water System Feasibility

PG&E Performs Significant Technical Outreach…Here with the CAC at the IRZ.

So…Many Opportunities to Learn…But Also Become Confused Because of Conflicting Opinions.

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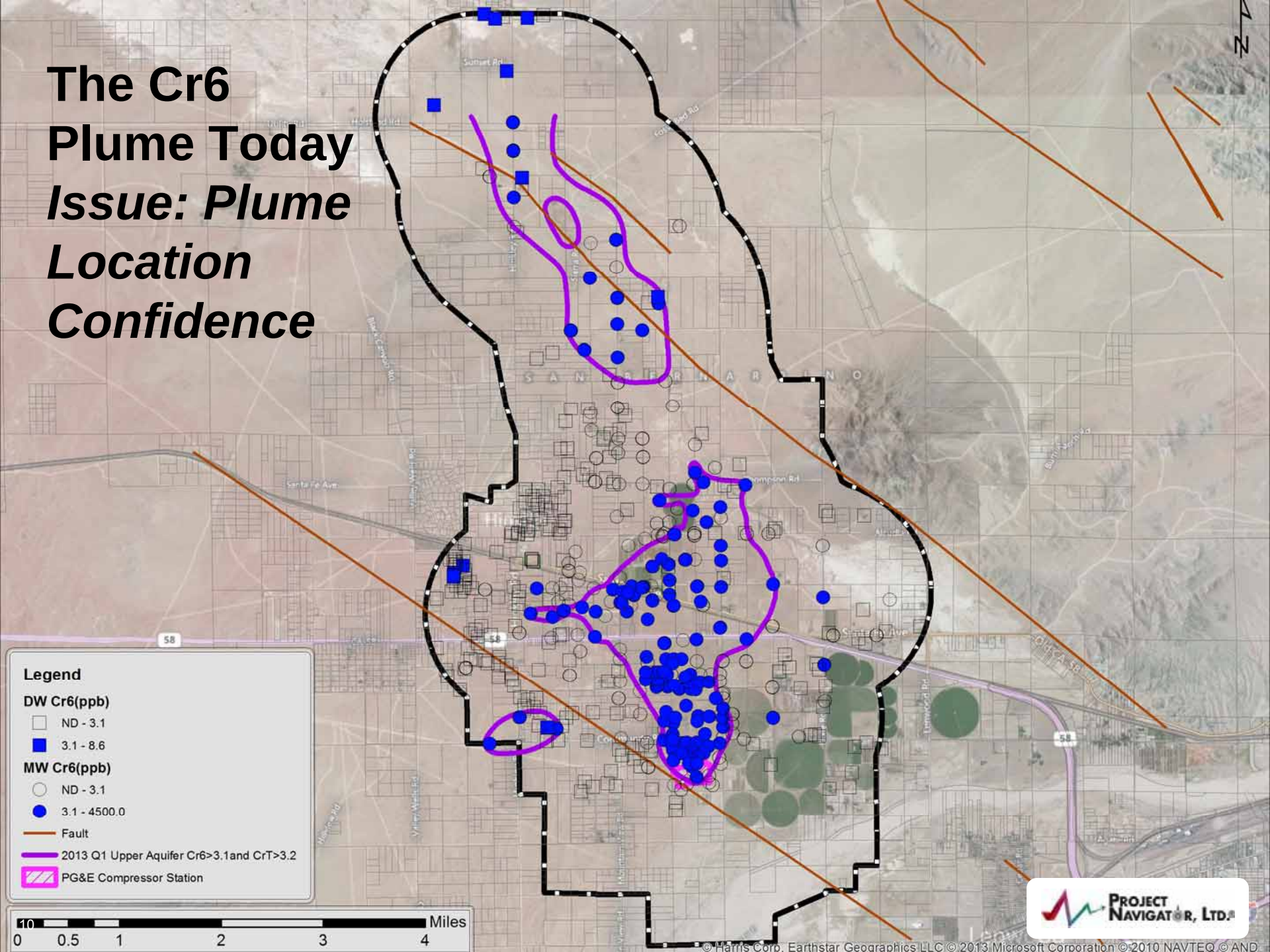
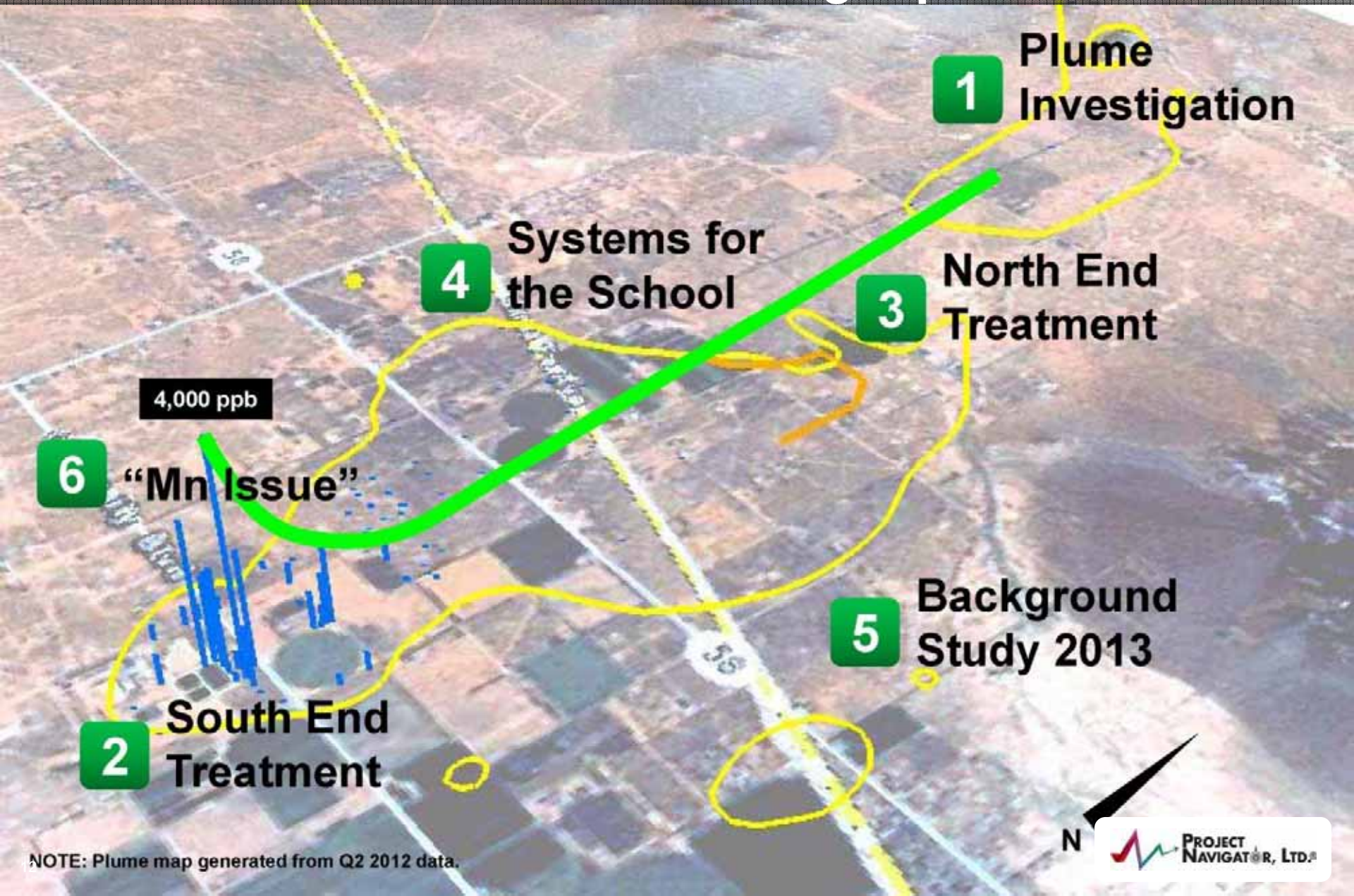
The Cr6 Plume Today

Issue: Plume Location Confidence

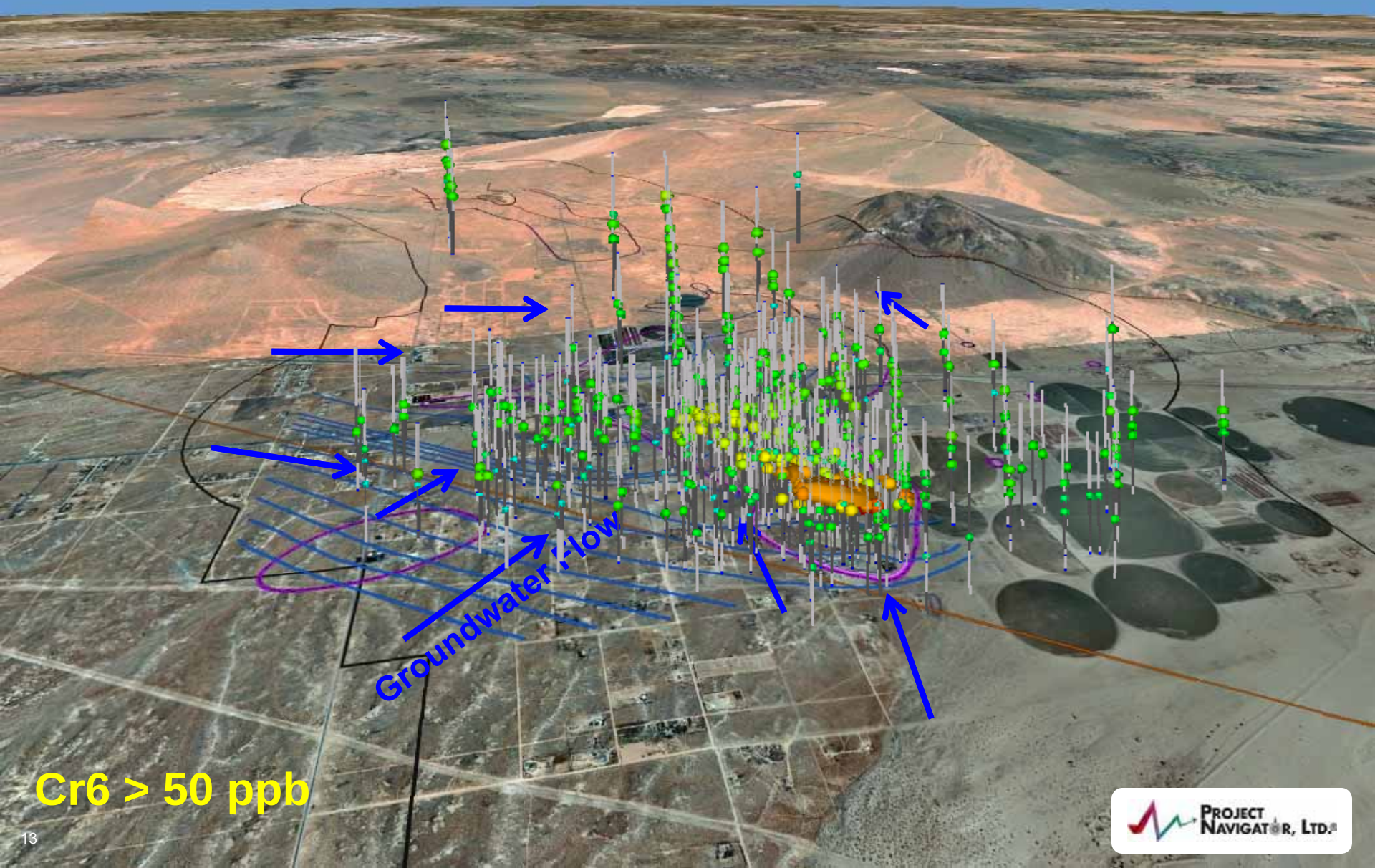


Unfortunately for the Long-term Future of Hinkley, the Plume's Location When Coupled with PG&E's Property Purchase Program, Has Resulted in Folks Moving Out of Hinkley.

Where the CAC's Been Providing Input to PG&E.



IRP Manager's Views Towards a Sustainable Remedy… *A. Knock Out Elevated Cr6 at the Source*



Towards a Sustainable Remedy… *B. Treat the Low Cr6 Conc's via an Approach Consistent with the Hinkley Environment.*

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Towards a Sustainable Remedy… *C. Define the Ultimate Clean Up Goals via a Cr6 Background Study.*

Extensive “stakeholder” front-end planning.

Validated results: late 2016?

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Towards a Sustainable Remedy… *D. A **Sustainable Solution** to Hinkley's Cr6 Impacts Should Incorporate:*

Environmental + Political + Cultural + Economic Considerations

Sustainable Hinkley-Compatible Features of Proposed Remedy

- "Best" Cr6 to Cr3 Operational Efficiency ("Best" as per EIR Evaluations)
- Conserves and protects natural resources such as water and air quality
- Minimize land and ecosystem impacts
  - e.g. *in situ* must be minimally invasive
  - *ex situ*: compatible with Hinkley's land
  - Promote passive technologies (Ag units)
- Support the reuse of land presently "dedicated" by PG&E to the remedy

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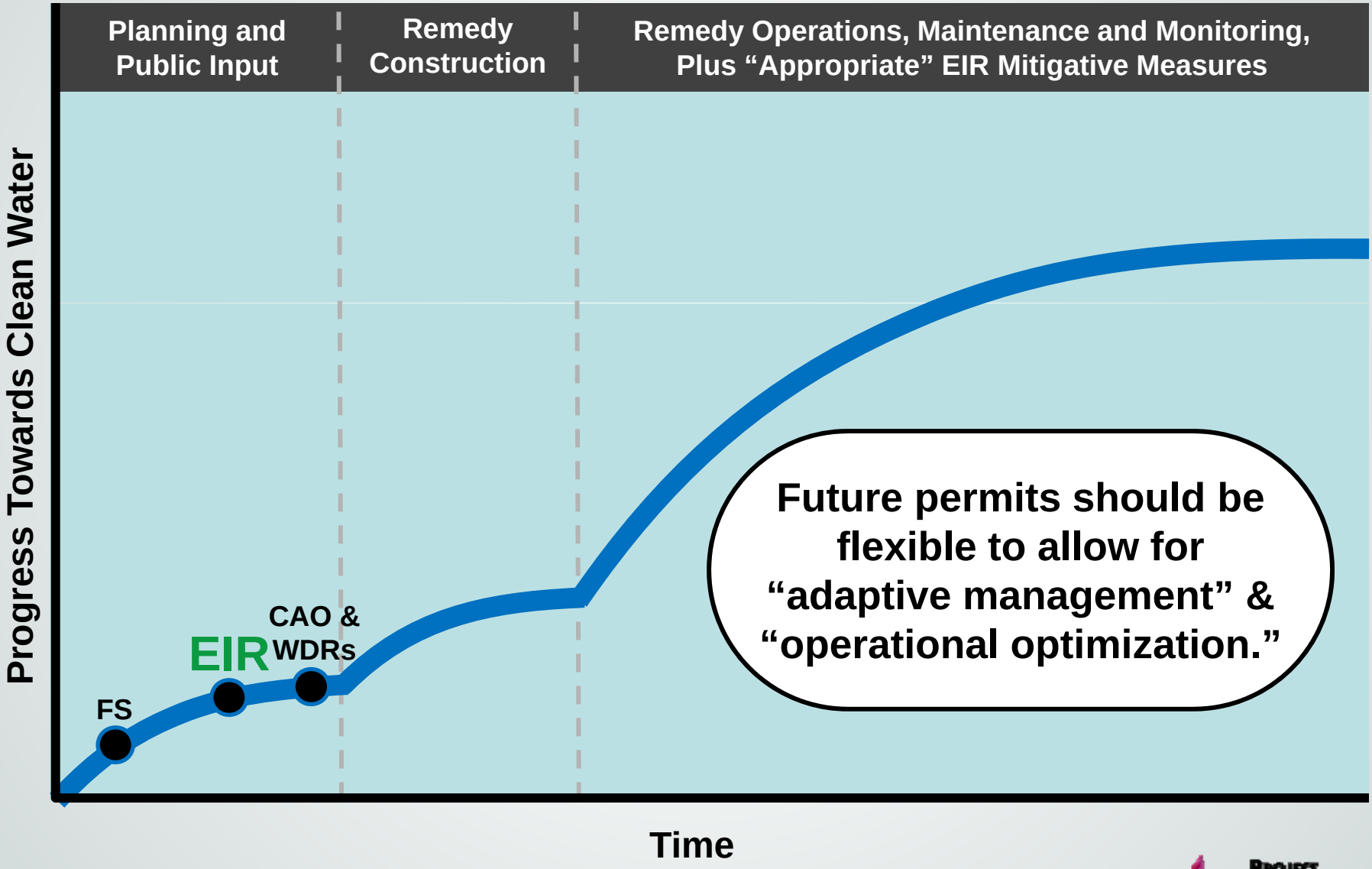
Long-term Stewardship Recommendations

- **Promote "Adaptive Management" Practices & Identify Measureable Interim Goals**
  - Use Interim Remedial Targets (IRTs) as initially described in Feasibility Study, Addendum 3, Table 3, Sept 15 2011
- **Continue to "solicit community involvement to increase public acceptance and awareness of long-term activities and restrictions."**
  - Ref: EPA, "Incorporating Sustainable Environmental Practices into Remediation of Contaminated Sites, April 2008
- **PG&E has commented on "the opportunity to work with members of the Community and other key stakeholders to plan for the future of the Hinkley Community once we (PG&E) have more certainty around these major milestones."** *(referring to Background Study, final EIR, and Hwy 58 relocation)*
  - Ref: PG&E, Questions & Answers from May 23, 2013 CAC Meeting

EIR Certification is a Major Step in the Long Cleanup Pathway