IRP Manager's Perspectives on the Future of the Project

The Groundwater Remedy's "*Omnipresence*" within the Hinkley Community

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Barstow, California

Prepared for

Lahontan Regional Water Quality Control Board
Board Members' Meeting

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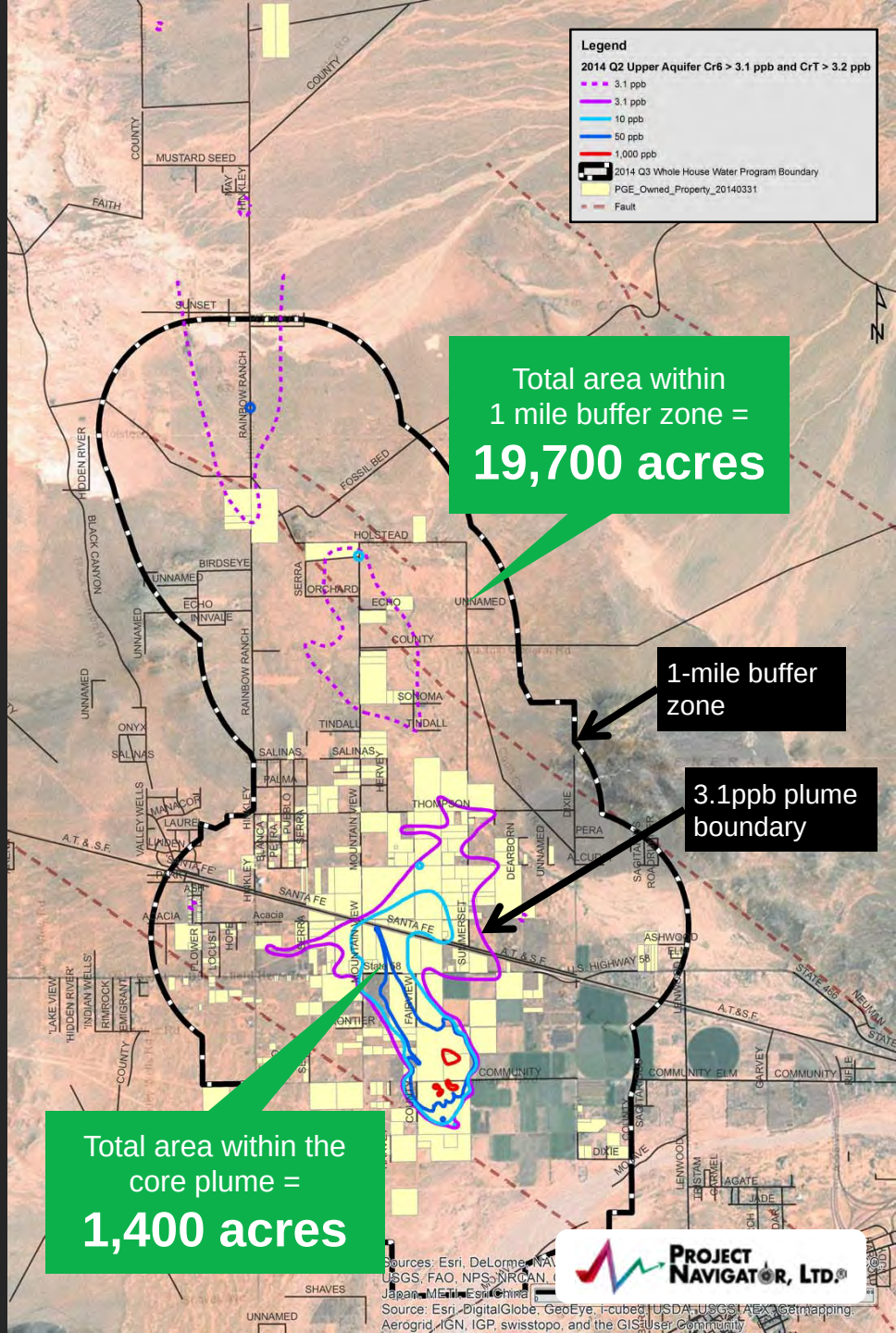
“Omnipresence”

Present in all places at all times.

- Merriam-Webster Dictionary, 2014



The Flow of My Remarks

- **Technical Outreach Has Been Significant**
  - Now driving towards a final, integrated CAO
- **It's Challenging to Maintain a Focus on the Final Objective**
  - i.e. Cr6 impacts, protectively remediated to background conditions
- **"Above Ground Topics" Now Dominate over "Below Ground Topics"**
  - The Results of an Informal Poll on the Community's Focus
- **Can a Sustainable Remedy be the End Result?**

Massive Improved Community Understanding of the Program's "Building Blocks"…

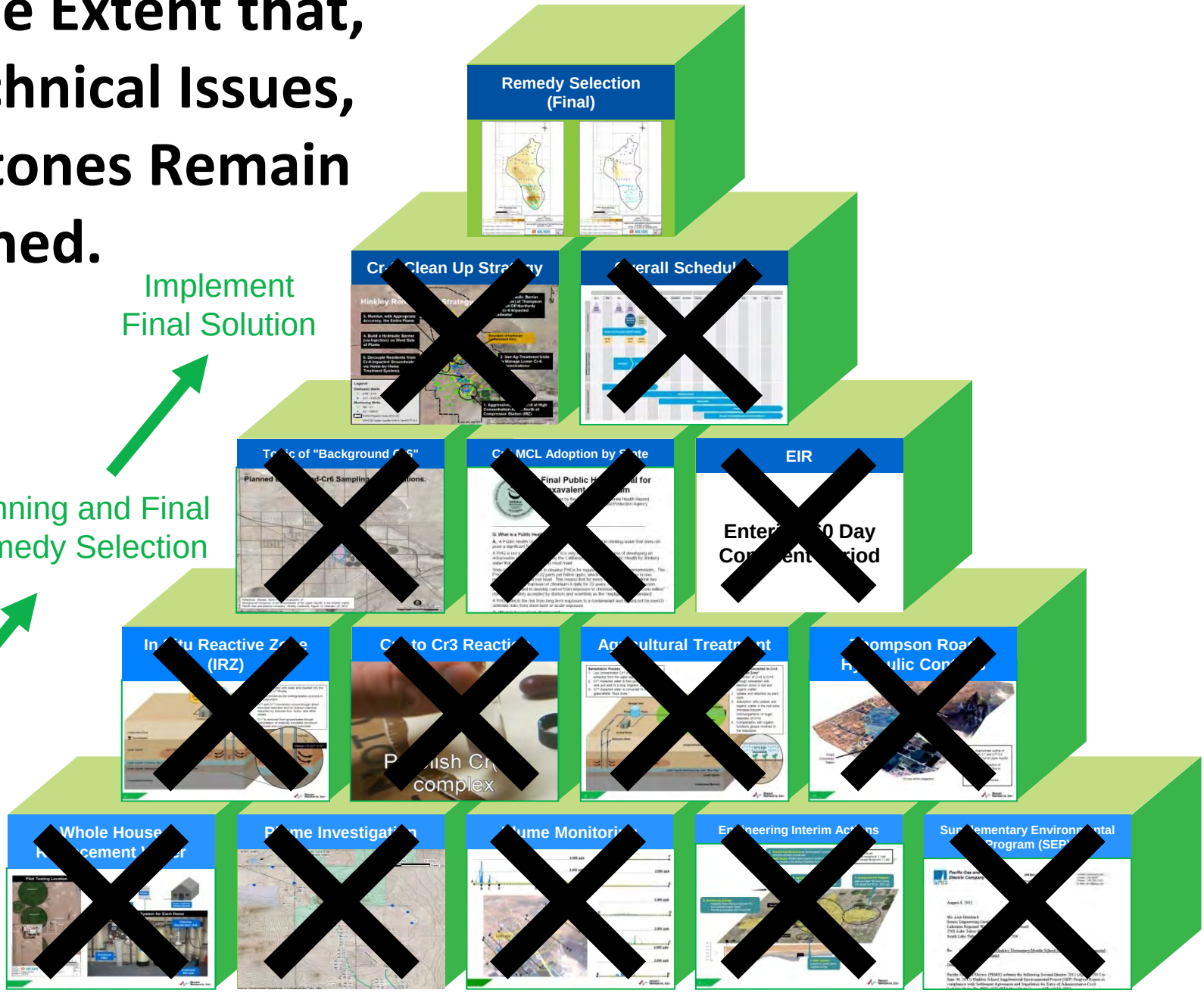
From June 27, 2013 Community Meeting

…to the Extent that, on Technical Issues, Few Stones Remain Unturned.

Implement Final Solution

Planning and Final Remedy Selection

Assessment and Interim Treatment



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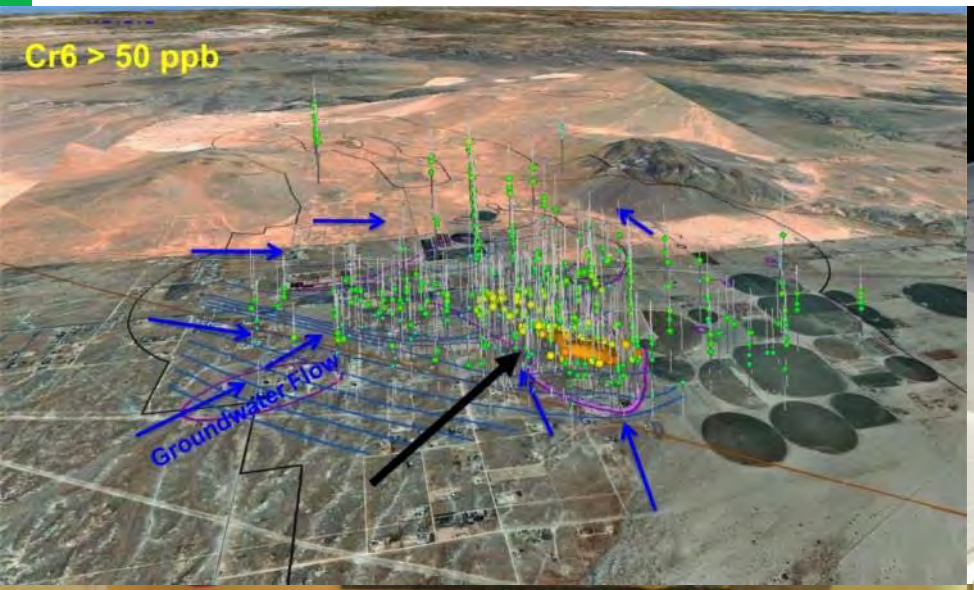
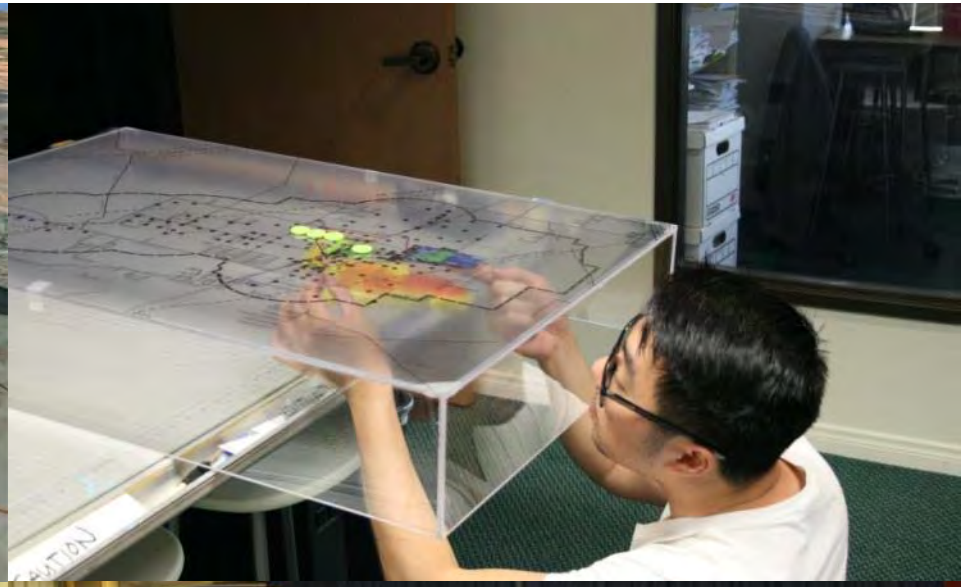
Today's Technical Focus is on Cleanup Speed, Effectiveness and Protectiveness of the Final Remedy.

PG&E's Kevin Sullivan explains the future of the cleanup at September 2014 Water Board Meeting

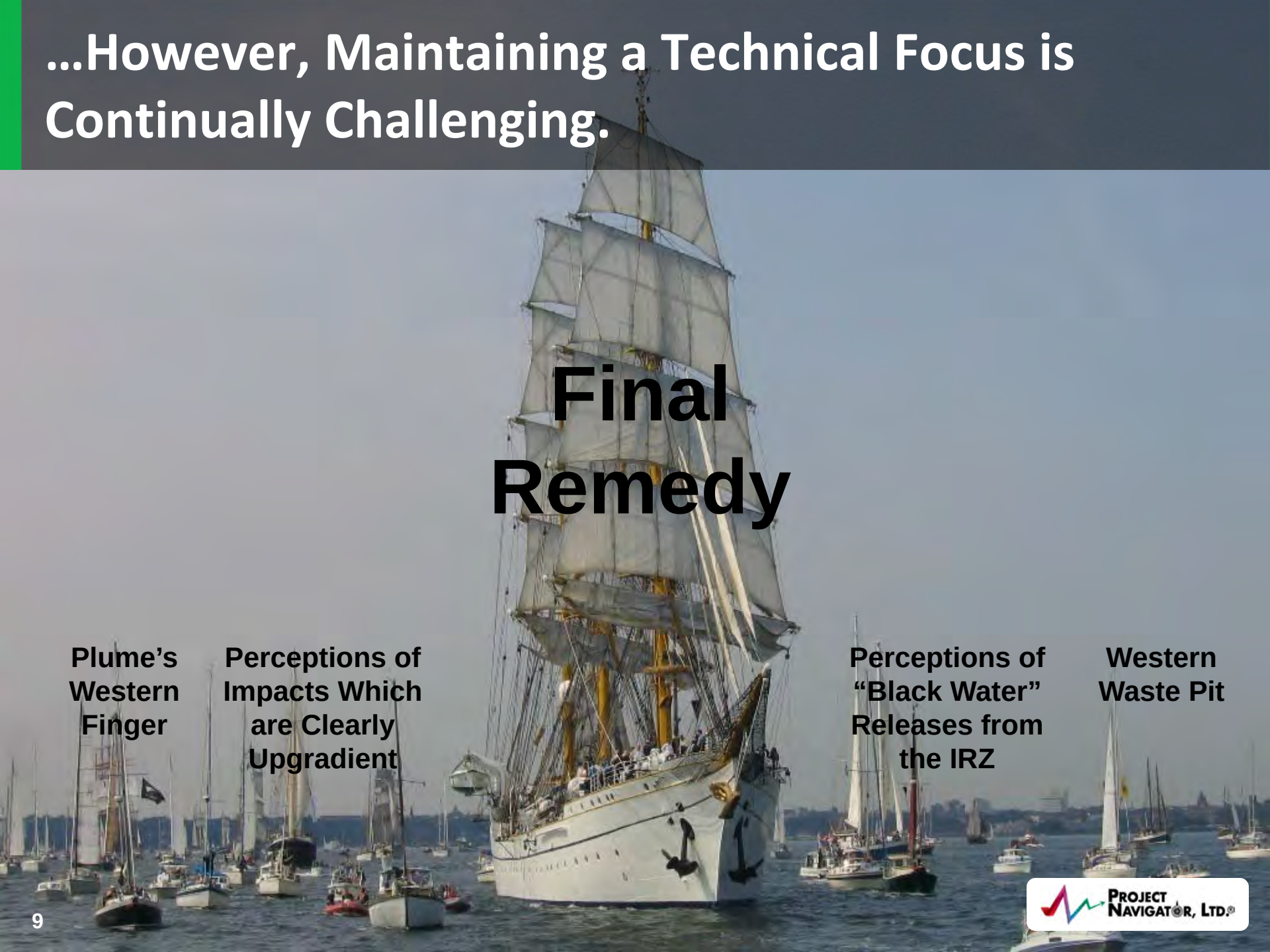
Soon After, 50 Community Members Attended the September Community Meeting, Where…

…Continuing with the IRP Manager's Outreach Plan, Models and Visuals Were Used to Aid Communications…





…However, Maintaining a Technical Focus is Continually Challenging.



For Example, Significant Resources (CAC, WB, PG&E & IRP) Discussed the "Former Western Waste Pit" at the IRP Manager's Office in September.

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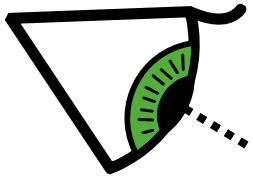
But What I've Come to Appreciate is that the Community Views "Grand Progress" Differently.

What the Hinkley Community Sees

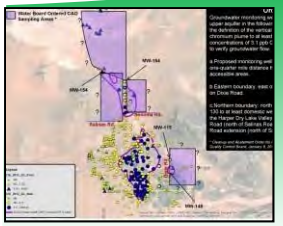
Declining population | Homes being demolished | School closing | Dying trees/ Fire hazards | Vacant lots/ Dust | Stray dogs

Ground Surface

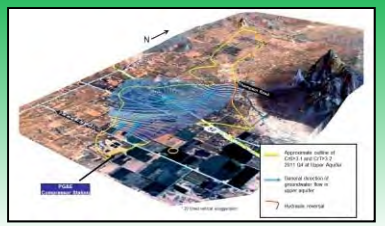


What the Water Board, PG&E, and the IRP Manager Sees

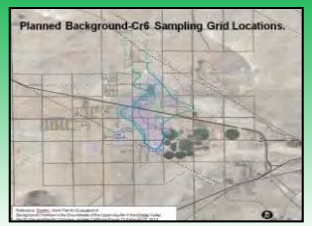
"Progress/Success" in plume management is not perceived as "progress" at ground surface



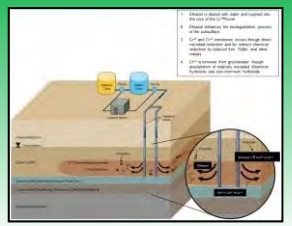
Plume Investigation



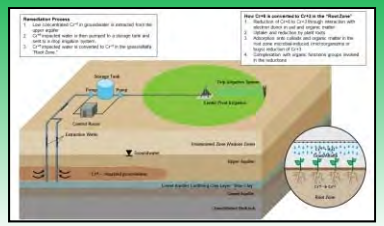
Hydraulic Gradient Controls



Background Study



IRZ Operations



Ag Treatment Operations

SEP Program

Groundwater

(*) New PG&E modeling forecasts predict time frames to attain MCL, plume-wide.

1st DRAFT, 7/3/14, IRP Manager

✔ **Cr6 → Cr3 (*)**

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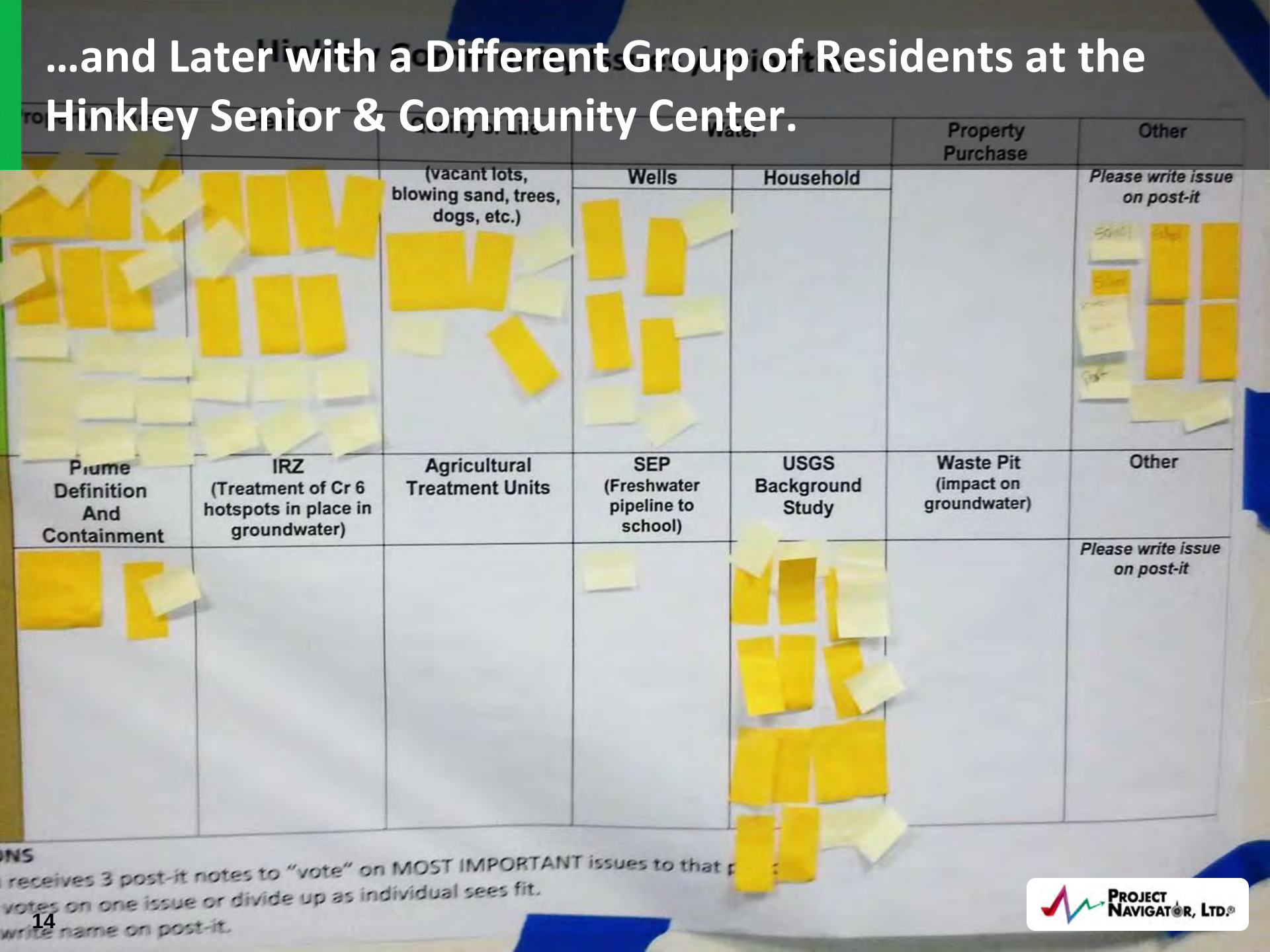
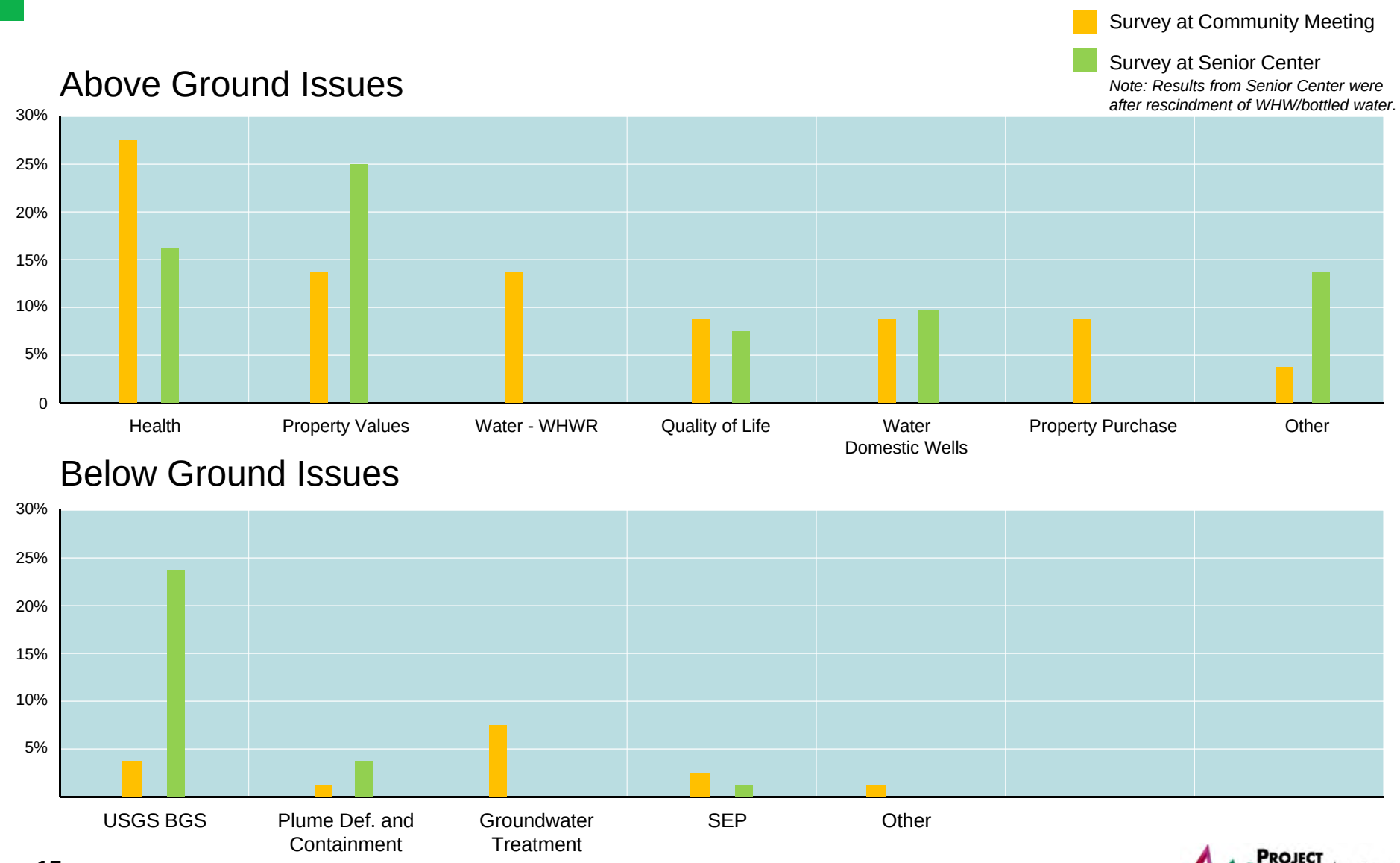
For Example, Some Community Stakeholders Prefer to Invest Their Time (and Passion) in Watering Trees on PG&E Owned Property.

To Assess, We Conducted a Poll to Rank "Above Ground" Vs "Below Ground" Topics…First, at a Community Meeting…

…and Later with a Different Group of Residents at the Hinkley Senior & Community Center.



Result: Above Ground Topics are Most Important to the Hinkley Community.



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Recognize that PG&E's Remedy, Pursuant to Water Board Orders, Will Alter the Above-Ground Landscape…

(Addition of up to 500 Acres of "Green" ATUs within the Current 1,400 Acres of Core Plume)

Native PG&E Acreage

PG&E Operated and Maintained ATU Acreage

…So, Is There an Opportunity to Adjust Our Thinking to Frame the Concept of a "Sustainable Remedy" Which Will Exist for Decades in the Hinkley Community to the Benefit of all Stakeholders?

Per EPA, a Sustainable Remedy is:

"The practice of considering all environmental effects of remedy implementation and incorporating options to minimize the environmental footprints of cleanup actions."

Reference: USEPA, 2010. Superfund Green Remediation Strategy. September.

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Many Sustainable Remedy Factors Are Presently "In Operation," …But Could The Topic be Integrated Under a Master Plan?

TABLE 3-3 Sustainable Remedy Selection Factors

Environmental	Social	Economic
1. Impacts on air (including climate change) 2. Impacts on soil and ground condition 3. Impacts on groundwater and surface water 4. Impacts on ecology 5. Use of natural resources and waste	1. Impacts on human health and safety 2. Ethics and equality 3. Impacts on neighborhood and locality 4. Communities and community involvement 5. Uncertainty and evidence	1. Direct economic costs and benefits 2. Indirect economic costs and benefits 3. Employment and employment capital 4. Induced economic costs and benefits 5. Project lifespan and flexibility

Reference: USEPA, 2010. Superfund Green Remediation Strategy. September.

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Conclusion: Can a "Common Ground" be Defined Regarding a Sustainable Remedy?

For PG&E

- Requires the company's continued work in the project space, beyond pure compliance
- Willingness to continue to participate in discussions on the 2 right-hand columns in the prior slide

For Water Board

- Review of WB's authority to add components of 2 right-hand columns into final CAO

For Community

- Willingness to adopt a "show me results and recognize them" attitude which can drive improved "Trust & Collaboration"