Environmental Impact Report Update

Hinkley Groundwater Cleanup Project

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What is an Environmental Impact Report?

- A report to help public and decision-makers understand environmental impacts of project.
- Required by California Environmental Quality Act (CEQA).
- Lead public agency must write EIR when impacts from a project could be significant.
- Describes ways to do project to reduce or avoid negative impacts.
- Discloses if negative impacts can't be avoided or mitigated, and evaluates if/why project should still be approved.

Hinkley Groundwater Cleanup Project

- Goal is to require groundwater cleanup as quickly as possible, balancing trade-offs between speed and environmental impacts.

- The Water Board has required PG&E to evaluate different approaches to achieve this goal.

- Approaches described in PG&E's August 2010 Feasibility Study and follow-up documents (Addenda 1, 2, and 3):
  - ✓ Shorter cleanup times.
  - ✓ Address public and agency comments.

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Feasibility Study Addenda #3

September 2011

- Addresses comments by Water Board staff, US EPA and CA Department of Toxic Substances Control:
  - ✓Year-round plume capture
  - ✓Backup plan to maintain plume capture
  - ✓Stability of Cr3 in soil
  - ✓Soil source investigation information
  - ✓More information on modeling assumptions

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Proposed Cleanup Technologies

US EPA and CA DTSC reviewed technologies proposed by PG&E:

- Below-ground (in-situ) treatment to convert Cr6 to Cr3.
- Above-ground treatment (pump & treat).
- Groundwater extraction to control plume migration.
- Agricultural units, using pumped groundwater for forage crop irrigation, converting Cr6 to Cr3.

Both agencies agreed these are a reasonable range of best available technologies.

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EIR Alternatives

- 4B Alternative (March 2011 Feasibility Study #2)
  - ✓ Below-ground treatment zones (in-situ)
  - ✓ More pumping wells to contain and clean up plume
  - ✓ Agricultural units for pumped water (5 to 8)

- Three “4C” Alternatives (Sept 2011 FS #3):
  - ✓ Higher groundwater pumping rates
  - ✓ Additional agricultural units (up to 25)
  - ✓ Winter crops, above ground treatment (year-round pumping/irrigation)
  - ✓ Backup plan if winter irrigation not possible

EIR Alternatives Consideration

	4B	4C-2	4C-3	4C-4
Agricultural Units	5	9	9	25
Annual groundwater pumping rate (gpm)	1270	2042	2829	2829
Time to 3.1 ppb Cr6 (years)	40	39	36	29
Groundwater lowering (max)	15 feet	40 feet	50 feet	69 feet

Example trade-off in bottom two rows: Faster cleanup, but groundwater levels lower significantly.

Environmental Impacts

- Aggressive groundwater pumping may lower groundwater levels or cause land subsidence in areas.
- 4C alternatives have more AUs located in habitat for desert tortoise, Mojave ground squirrel.
- In-situ treatment may increase by-product formation (manganese, iron).
- Increased Total Dissolved Solids from increased irrigation.

For each alternative, EIR will describe mitigation measures to limit or compensate for impacts, or disclose if impact cannot be avoided.

Next Steps

March 2012

Release Draft EIR for 60-day comment period

April 2012

Water Board staff hold public meeting to review Draft EIR

July 2012

Release Draft Final EIR for 30-day comment period

Sept 2012

Water Board formal meeting to adopt EIR

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Thank You