

## Humboldt Working Group

### Permitting Authority Subcommittee Meeting Humboldt Bay Aquatic Center Eureka, CA

February 2, 2010

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#### Meeting Summary

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#### Introductions

*Roundtable introductions were led by Anna West, Kearns & West (K&W), facilitator*

#### Updates

- **Meeting with Fishermen:** Bill Toman, PG&E; Doug Davy, CH2M Hill; Aaron Newman, Humboldt Fisherman's Marketing Association; Kevin Pinto, Commercial Crab Fisherman; and Ted Larson, Attorney, met that morning to discuss compensation from the economic displacement of the project. The economic displacement will be calculated based on the value of the local fishery. A compensation fund would address issues like safety equipment, local fishermen and crabbers, and legacy gear removal. This fund would be part of the project's operating budget. There is interest in creating an operating committee to oversee this fund.
- **Cable Options:** Winzler & Kelly is mapping out the onshore cable options. There will be five separate horizontal directional drill (HDD) bores with liners (made out of either steel or high density polyethylene (HDPE)), one for each of the cables; this is the most standard way to bring cables onshore. The cables will initially be 100 feet apart, then come as close as 10 feet apart. The power conditioning pad will be placed on a concrete, asphalt or compacted gravel pad. The following clarifications about cabling were made:
  - Surveys are planned for spring to look for endangered plants that may be affected by the cabling; none are anticipated.
  - The cables will run along the existing road that is south of the water tank. The power conditioning pad would be east of the tank. The conditioning pad would be connected to the Fairhaven substation by above ground cables.
  - PG&E will attempt to remove the cables in the HDD bores, but some may have to be left in place. What remains will be slurried and capped.
  - The HDD for this project will most likely use a launch pit of 5 to 15 ft depth and enter at 12-18 degrees to a depth of 40-50 feet. The HDD will exit beyond the surf zone at approximately 40-50 feet depth below the water table, which is at a depth of 5-20 feet at the proposed onshore landing location.

- **Joint Environmental (NEPA/CEQA) Document:** Ken Hogan, Federal Energy Regulatory Commission (FERC), and Steve Mindt, California State Lands Commission (CSLC) discussed upcoming important dates.
  - The Notice of Preparation (NOP) for the Environmental Impact Report/Statement (EIR/EIS) will be issued May 25, 2010 (tentatively). There is then a 60-day public comment period.
  - CSLC is planning on an EIR/FONSI (Finding of No Significant Impact).
  - Statements of Interest (SOI) for an CSLC consultant are due on February 15, 2010. Interviews will be conducted on March 10-11, 2010, and a decision will be made by April 12, 2010.
  - FERC and CSLC are working together to issue a joint letter.
  - A scoping meeting is planned for June 17, 2010 to review the joint California Environmental Quality Act/National Environmental Policy Act (CEQA/NEPA) document.
  - The final CEQA/NEPA document will be complete by February 2011.
  - Ken Hogan explained that FERC is not planning to pro-actively solicit the Army Corps of Engineers as a cooperating agency, although this could change.
- **Project Timeline:** The Subcommittee reviewed the various components of the project timeline, including environmental baseline information needs before, during, and after construction; engineering design and installation timing requirements; and the PG&E WEC procurement process estimated timeline. It was agreed that the integrated agency timeline should be revised to include this information with associated approximate completion dates.

**Engineering design and installation timing requirements** under the assumption that the Final Pilot License Application (FPLA) is approved in December of 2010, the engineering consultants will need:

  - Two months to prepare detailed WEC cable design
  - One month to get procurement spec and RFP
  - Two months to order the cables
  - 12 months to have the cable delivered
  - Summer 2011 – install shore pad
  - Spring-Summer 2012 – install cables and boundary markers, including: HDD (weather dependent), cable lay (weather dependent), cable burial, cable testing
  - Spring 2013 – install WECs (weather dependent), including: anchors, moorings, WECs, and testing of system
  - Fall 2013 – Initial operating capability
  - 2013/2014 – Full operating capability for x years
  - After x years of operation, Decommissioning phase 1 begins (spring/summer), including removal of WECs, moorings, anchors, and power conditioning station.
  - One year later, Decommissioning phase 2 begins (spring/summer), including removal of boundary markers, cables, and shore site. HDD bores will be decommissioned in-place.

### Action Items Review

The Subcommittee reviewed and updated the list of outstanding action items from previous meetings.

## **Draft Monitoring and Adaptive Management Plans**

*Presented by Sharon Kramer and Jeff Jacobsen, H.T. Harvey, and Christine Champe, Stillwater Sciences*

The PG&E consultants presented the detailed proposed monitoring and adaptive management plans (M&AMP) for affected species. The complete presentation is available on the WaveConnect website at <http://www.pge.com/waveconnect/projects.shtml>.

The following clarifications were made regarding the project's monitoring and adaptive management plans:

### *Marine Mammals*

- There are three planned stages of monitoring and adaptive management.
  1. Before there is any physical disturbance to the project area.
  2. After the cables are laid and before the WECs are installed.
  3. After the WECs are installed.
- In lieu of a control site, which may not match in geography, the site will be monitored for a year before the installation of the cables.
- Acoustic Monitoring will be conducted to determine whether or not the devices are loud enough to affect the noise levels in the environment. It is very difficult to track sounds related to a behavioral response.

### *Seabirds*

- Seabird monitoring will begin once the project facilities have been built.
- The project will adhere to US Coast Guard regulations for lighting.
  - Boundary markers, but perhaps not the devices themselves, must be visible by helicopter.
- The project will adhere to federal regulations for safety.
- There will be direct observation of the facilities for 90 days after the project is installed.
- Beach surveys are a secondary, indirect way to find related seabird mortality.
- Lights on fishing boats do attract seabirds.
- To deter seabirds from possible collision, the project can also use sound radars.
- The effects of this project can indicate what effects may occur in a utility-sized project.

### *Fish and Invertebrates*

- A control site can be useful in monitoring attraction effects.
  - Neither visual observation nor sonar are appropriate monitoring methods for this site.
- If there is a chance of take during monitoring or other studies (e.g. through the use of gill nets), a take permit will be required by the California Department of Fish and Game (CDFG). California Endangered Species Act (CESA) requires a full mitigation take of a listed species.
- The group discussed whether or not it was possible for a contractor doing the proposed monitoring and gill net sampling could obtain the take permit instead of PG&E.
- The topic of a NMFS Section 10(a)1(A) research permit was discussed as means to exempt the potential take of listed species during monitoring. NMFS expressed

that the use of gill nets, and therefore take of a listed species under a section 10(a)(1) (A) permit, may be acceptable under certain circumstances that are consistent with the Endangered Species Act. Permitted activities must not operate to the disadvantage of the listed species and must provide a bona fide and necessary or desirable scientific purpose or enhance the propagation or survival of the listed species. NMFS also mentioned that analysis of the effects of the take of listed species associated with the monitoring plan could also be encompassed in the section 7 ESA consultation on the project since the monitoring is part of the proposed action.

- An array perpendicular to shore can monitor tagged sharks, green sturgeon, and salmon migrating near and through the project area.
  - Funding for this potential study needs to be determined.
- To study biofouling effects from O&M operations, monitoring devices can be attached to the work boats or settlement plates can be used on the project.
- Grab samples along the cable route and project area will be taken before construction and a couple years after construction to look for changes in benthic community populations.
- There is an unwritten expectation that removal of a project will also remove the effects. However, there may be legacy effects.
- Continued monitoring and adaptive management is part of the operational budget for the lifecycle of the project.
- Sediment chemistry will be analyzed, particularly to look for evidence of biofouling.
- The WECS can be turned off and on to study whether there is a behavioral change in crabs.

**Project Duration**

The Subcommittee discussed the flexibility of the project to extend its current duration of five years to a longer period. PG&E clarified that with the current understanding of the economics, there is too little time to recover the cost of the project. FERC’s white paper on wave energy serves as guidance and is flexible about the duration, megawatts (MW), and terms of this project, so long as the project is acceptable to its stakeholders. PG&E proposed a possible project duration of 10 years, specifically two years of installation, 10 years of operation, and one year of decommissioning. The CSLC and FERC expressed support for this timeframe if it was supported by stakeholders. Other agencies will be invited to discuss general information needs related to PG&E’s potential request at the next Subcommittee meeting and throughout the licensing process.

The following topics were raised related to the project’s duration:

- CSLC requires the licensee, PG&E, to be responsible for all mitigation.
- Data gathering is part of the operational budget for the entire lifecycle of the project.

**Action Items**

Action Item	Who	When
1. Determine the material/s for the cable sleeve.	1. Rick Williams, SAIC	1. Done
2. Determine the depth of the HDD.	2. Rick Williams,	2. Done

	SAIC	
3. Determine whether whales have ever collided with SEAFAC.	3. Rick Williams, SAIC	3. March 18, 2010
4. Include approach for removing cables and mitigating effects in the DPLA, or when known.	4. Doug Davy, CH2M HILL	4. February 2010, when available
5. Create a list of all shared reports and studies within the Subcommittee.	5. K&W	5. ASAP
6. Share research to determine if there are any platforms in state waters.	6. John Dye, CSLC	6. March 18, 2010
7. Share hard copies and electronic copies of the DPLA with the Subcommittee.	7. Doug Davy, CH2M Hill	7. February 2010
8. Create a Subcommittee contact list and distribute.	8. K&W	8. ASAP
9. Include Winzler & Kelly's drawings of the onshore cable routes in the DPLA, if possible.	9. Doug Davy, CH2M HILL	9. February 2010
10. Share a schedule of monitoring and adaptive management related to the cable installation.	10. Jeff Jacobsen, HT Harvey	10. March 18, 2010
11. Determine whether a take permit needs to be issued to only the contractor doing the sampling.	11. Vicki Frey, CDFG	11. March 18, 2010
12. Determine whether monitoring would be covered under science collection or take permit.	12. Vicki Frey, CDFG	12. March 18, 2010
13. Identify the literature used to support the monitoring and adaptive management plan.	13. PG&E team	13. February 2010
14. Contact PNNL about a potential EMF test area on the project.	14. Brendan Dooher, PG&E	14. March 18, 2010
15. Share EMF OWET studies with FERC to mention to NOAA/DOE.	15. Rick Williams, SAIC	15. ASAP
16. Compile a list of desired baseline information /share with NOAA, FERC, OWET, and others to encourage independent funding.	16. Doug Davy, CH2M HILL	16. March, 2010
17. Share whether FERC would require monitoring for potential EMF legacy effects, after the project is decommissioned.	17. Ken Hogan, FERC	17. March 18, 2010
18. Identify and share perspectives on potential project operation of 10 years.	18. Members of the HWG Permitting Authority Subcommittee	18. March 18, 2010.
19. Revise Integrated Agency Timeline to	19. K&W	19. March 18, 2010

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include monitoring and adaptive management plans, and engineering timelines		
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**Attendees**

Agencies:

- Vicki Frey, California Department of Fish & Game
- Michael Van Hatten, California Department of Fish & Game
- John Dye, California State Lands Commission
- Steve Mindt, California State Lands Commission
- Ken Hogan, Federal Energy Regulatory Commission
- Diane Ashton, National Marine Fisheries Service
- Monica Deangelis, National Marine Fisheries Service (by phone)
- Dave White, National Marine Fisheries Service
- Catherine Woody, State Water Resources Control Board
- Bill McIver, U.S. Fish and Wildlife Service

PG&E & Consultants:

- Erica Brand, PG&E
- Bill Toman, PG&E
- Ian Caliendo, PG&E
- Mike Gunby, PG&E
  
- Doug Davy, CH2M HILL
- Aarty Joshi, CH2M Hill
- Jeff Jacobsen, H.T. Harvey
- Sharon Kramer, H.T. Harvey
- Mike Slater, SAIC
- Rick Williams, SAIC
- Christine Champe, Stillwater Sciences
- Emily King Teraoka, Stillwater Sciences

Facilitators:

- Anna West, Kearns & West
- Briana Moseley, Kearns & West
- Christine Lim, Kearns & West