

**Humboldt Working Group**  
Wharfinger Building, Great Room  
Eureka, CA

**February 1, 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**

*Led by Anna West, K&W Facilitator*

The following updates were reviewed:

- **HWG Permitting Authority Subcommittee:** The Subcommittee last met on January 7, 2010. David White, National Marine Fisheries Service (NMFS), shared that they are making good progress on the monitoring and adaptive management plans and that the Humboldt Working Group (HWG) would learn more from the upcoming presentation. The Subcommittee will continue to discuss these topics at their next meeting on February 2, 2010.
- **HWG Communications Subcommittee:** This Subcommittee met on January 12, 2010 to discuss the Humboldt WaveConnect Public Meeting on February 2, 2010. The meeting format was updated to include one panel, a shorter formal presentation, and a local facilitator. Members of the Subcommittee agreed to share details of the event with their constituents in order to promote awareness of the meeting.
- **HWG Fishermen's Subcommittee:** Members of the local fishing community met on January 12, 2010 to review site selection and to begin discussing potential compensation for displaced fishing grounds and gear loss. PG&E, members of the Fishermen's Subcommittee, and Ted Larson, Attorney, will meet tomorrow to further discuss these issues with PG&E. The following points were raised during the HWG meeting:
  - This subcommittee, made up of a larger, more diverse group of fishermen, discussed the potential for a new site for the pilot project that could be less impactful than the currently proposed site. It was noted that the travel to and from the project area (e.g. for maintenance) could have impacts on crabbing operations, therefore a shorter distance between the harbor mouth and the project site is potentially more desirable.
  - Moving the project further south would require less cable, thereby minimizing associated environmental effects.
  - Moving the project site further south may increase the likelihood that people unfamiliar with the site (e.g. recreational sailors) could collide with it, since it is closer to the harbor mouth.
  - Moving the project further south would not likely impact surfing interests.
  - There is a two square nm area reserved for sport fishing around the jetties.
  - The current site will be included in the Draft Pilot License Application (DPLA), due to the Federal Energy Regulatory Commission (FERC) on

- February 26, 2010. It can be changed after that date if stakeholders agree to a new location.
- The Marine Life Protection Act (MLPA) has no association with this project and will not interact with potential Marine Protection Areas (MPAs). This wave site will be determined prior to any MPAs being adopted.
  - **PG&E WaveConnect Presentations:** In January 2010, PG&E conducted informational presentations about the WaveConnect pilot project to the City of Arcata, City of Eureka, City of Trinidad, and Humboldt County. The presentations and progress to date on the Humboldt project were well received.
  - **Review Action Items:** The HWG received an updated Action Items list and were asked to review it.
  - **Wave Energy Converter (WEC) Selection and the Bidder's Conference:** The Bidder's Conference, to allow potential WEC manufacturers to visit the project site and meet the local community, has been postponed until April 2010 at the earliest. The following discussion took place regarding WECs and the project's cost:
    - The WECs will be owned by the manufacturers. PG&E and the manufacturers sign a power purchase agreement (PPA) to purchase electricity that is produced and delivered by the WECs. This offsets the cost for the manufacturers.
    - Based on new cost information, the project's operations may need to be longer than 5 years in order to make the project's costs acceptable to the California Public Utilities Commission (CPUC). The duration of the project will not be changed until the project's costs are better understood and the HWG is consulted.
    - The project is currently projected to cost approximately \$100 M. The market will accept around \$250/MWh, but this is a premium price for renewable energy.
    - A changed duration would also need to be addressed in consultation with the agencies on the project. Ken Hogan, FERC, expressed that the current application is flexible to a new duration, but FERC looks for strong stakeholder feedback on this topic.
  - **Public Meeting Review:** The Public Meeting will take place February 2, 2010 at the Eureka Veteran's Hall. The HWG reviewed the agenda and panelists; Paul Hagen, Community-at-Large, will be subbing for Pete Nichols, Humboldt BayKeeper. Local resident Betsy Watson will serve as the facilitator. Some HWG members expressed the difficulty of sharing information about the project and the site with the community when so many unknowns still exist.

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

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

Sharon, Jeff and Christine shared the monitoring and adaptive management plans (M&AMP) for key issues related to marine mammals, fish species, green sturgeon, Dungeness crab, elasmobranchs (sharks, rays and skates), and seabirds. These plans will be incorporated into the DPLA. The complete presentation is available on the WaveConnect website at <http://www.pge.com/waveconnect/projects.shtml>.

The following clarifications were made regarding the M&AMP:

- While PG&E and the fishing community are working on reducing fishing gear entanglement, it is not entirely preventable. When fishing gear entanglement occurs, it will be logged and removed as quickly as possible.
- The consultants are reviewing monitoring and adaptive management at other sites and will include applicable information into these plans.
- While these plans focus on specific animal species, ultimately the consultants will monitor the entire community of species and how they are affected.
- A platform under the project facility's lights would minimize direct light hitting the ocean surface.

### **Electric and Magnetic Fields (EMF) Overview**

*Presented by Michael Slater, SAIC*

Michael gave an overview of electric and magnetic fields, which are separate (electric fields and magnetic fields), but can occur concurrently. While power cables have been laid underwater since 1847, there has been very little study of EMF effects. The complete presentation is available on the WaveConnect website at <http://www.pge.com/waveconnect/projects.shtml>.

The following points were clarified regarding the facility's potential EMF effects.

- The equipment to measure EMF is expensive, starting at a low price of \$40,000 for one sensor.
- A study by the National Academy of Sciences (NAS) showed that people living under transmission lines showed no increased susceptibility to cancer or other problems.
- Anecdotal information does not suggest EMF effects from underwater power cables.
- In studying EMF, the consultants need to consider both the background fields, what naturally occurs, and the source fields, what could be added by the cables.
- There are three questions regarding EMF: whether there is an impact on species, whether this is negative or not, and whether this impact can be measured. The current measuring equipment may not be able to answer these questions.
- There are not strong, documented requests for EMF studies in the scientific community.

### **Next Steps**

*Presented by Anna West, K&W Facilitator*

- Since the bidders conference is postponed, the HWG will not meet in March; the next meeting will take place April 6, 2010.
- The HWG Permitting Authority Subcommittee will meet in March as scheduled.
- Jim Zoellick suggests Wave Energy 101 can be presented at the future workshop planned by the Redwood Coast Energy Authority.

### **Action Items**

<b>Action Item</b>	<b>Who</b>	<b>When</b>
1. Identify potential impacts to the Humboldt Yacht Club from moving	1. Maggy Herbelin, Humboldt Bay	1. April 2010

the project further south.	Stewards	
2. Share background information on the Humboldt WaveConnect pilot project with Briannon Fraley, new Wiyot Tribe representative.	2. PG&E/Doug Davy, CH2M Hill/Kearns & West	2. ASAP
3. Include the Humboldt Open Ocean Dredged Site to the project area map.	3. Doug Davy, CH2M Hill	3. ASAP
4. Include time for deferred discussions in future HWG meetings.	4. Kearns & West	4. Ongoing
5. Discuss project flexibility and project duration during the Permitting Authority Subcommittee meeting.	5. HWG Permitting Authority Subcommittee	5. February 2, 2010, Done
6. Share Wave Energy 101 powerpoint slides with the HWG.	6. Rick Williams, SAIC	6. Done

### Attendees

#### Primary:

- Vicki Frey, California Department of Fish & Game
- Steve Mindt, California State Lands Commission
- John Dye, California State Lands Commission
- Julie Fulkerson, City of Trinidad
- Kevin Pinto, Commercial Crab Fisherman
- Paul Hagen, Community-at-Large
- Erin Iya Mahan, Community-at-Large
- Dave Meserve, Community-at-Large
- Ken Hogan, Federal Energy Regulatory Commission
- Larry DeRidder, Humboldt Area Saltwater Anglers
- Maggy Herbelin, Humboldt Bay Stewards
- Mark Lovelace, Humboldt County
- Aaron Newman, Humboldt Fisherman's Marketing Association
- James Howard, Humboldt State University
- Diane Ashton, National Marine Fisheries Service
- Dave White, National Marine Fisheries Service
- David Boyd, Redwood Coast Energy Authority
- Rob Cozens, Resighini Rancheria
- Jim Zoellick, Schatz Energy Research Center
- Catherine Woody, State Water Resources Control Board
- Bill Lydgate, Surfrider Foundation, Humboldt Chapter
- David Ammerman, U.S. Army Corps of Engineers
- Rob Starr, U.S. Coast Guard
- Bill McIver, U.S. Fish & Wildlife Service
- Briannon Fraley, Wiyot Tribe

#### Alternates:

- Alexandra Stillman, City of Arcata
- Milton Boyd, Humboldt State University
- Dana Boudreau, Redwood Coast Energy Authority

- Colin Sheppard, Schatz Energy Research Center
- Scott Willits, Surfrider Foundation, Humboldt Chapter

PG&E:

- Bill Toman, PG&E
- Ian Caliendo, PG&E
- Mike Gunby, PG&E
- Alison Talbott, PG&E

PG&E WaveConnect Consultants:

- Doug Davy, CH2M HILL
- Sharon Kramer, H.T. Harvey
- Jeff Jacobsen, H.T. Harvey
- Aarty Joshi, CH2M Hill
- Mike Slater, SAIC
- Rick Williams, SAIC
- Christine Champe, Stillwater Sciences
- Pat Kaspari, Winzler & Kelly

Public:

- Ted Larson, Humboldt Fishermen's Marketing Association
- Leroy Zerlang, Brusco Tug/Zerlang & Zerlang
- John Powell, Humboldt Bay Harbor District
- Stephen Pepper, Humboldt Maritime Logistics

Facilitators:

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