

Humboldt Working Group

Permitting Authority Subcommittee Meeting Humboldt Bay Aquatic Center Eureka, CA

April 7, 2010

Meeting Summary

Overview

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

Action Item Follow-up

Outstanding action items from previous HWG Permitting Authority Subcommittee meetings were addressed as follows (these are also updated in the Action Items tracking documents):

- Sharon Kramer, HT Harvey & Associates, gave an update on the Pacific Northwest National Laboratory (PNNL) Conference. They have been in touch; study plans are underway, but results will be further out. Sharon will keep us posted on progress.
- PG&E (Ed Cheslak) will convene a meeting between HT Harvey & Associates, California Department of Fish and Game (CDFG), National Marine Fisheries Service (NMFS), and the U.S. Fish & Wildlife Service (USFWS) to discuss the use of gill nets as a monitoring technique.
- The Federal Energy Regulatory Commission (FERC) and the California State Lands Commission (CSLC) shared that they are still working on preparing a Letter of Understanding (LOU) regarding preparation of a joint environmental document.
- Ken Hogan, FERC, will provide an update on the progress of the FERC/California State Memorandum of Understanding (MOU) regarding hydrokinetics and find out who is the California State signatory.

Review of the Integrated Agency Timeline

The group reviewed the integrated agency timeline and the following clarifications were made:

- A Coastal Zone Management Act (CZMA) determination is concurrent with the coastal development permit. The California Coastal Commission (CCC) is the lead for this.
- FERC and CSLC are working to prepare a joint Notice of Preparation (NOP)/Notice of Intent (NOI). The scoping meeting for the NOP/NOI is scheduled for June 9th in Eureka, CA. FERC is taking the lead on drafting the project description. The rest of the document will be prepared after written comments from the agencies have been submitted. It was noted that FERC and CSLC are

relying on the comments from agencies to define the areas of impact. It was clarified that the NOP/NOI will be issued after FERC/CSLC deem the draft pilot license application and lease application complete.

- CSLC explained that they are planning to have a joint project description so that the basis for the environmental analysis for NEPA and CEQA is the same.
- CSLC requested that agencies send all comments, including listed species of concern and regulatory requirements, to CSLC as well as FERC. This way CSLC can start working out the California Environmental Quality Act (CEQA) thresholds. It was asked that agencies send written copies of regulatory requirements and studies used to justify their comments to CSLC. Comments should be sent to both Steve Mindt and Marina Brand of CSLC. If studies or reports are referenced then please also send the actual referenced document so that it can be included in CSLC's administrative record. CSLC asked the agencies when submitting comments to keep in mind whether they could live with not spending all of the funding on studies but instead using the adaptive management plan with triggers and/or thresholds to protect the environment and resources. FERC asked the agencies to keep the scope of the comments to this project, not to potential impacts for future projects at other sites.
- FERC clarified that letters and comments should be sent to Kimberly Bose, Secretary of the Commission. It was recommended that everyone e-subscribe on the FERC website.
- CSLC and PG&E had a meeting to discuss funding for the consultant who will prepare the CEQA document. Next steps are for CSLC to provide the funding needs to PG&E for the initial effort; PG&E will provide the funding requirements, and then a funding agreement will be prepared between CSLC and PG&E. It is hoped that this will occur prior to the June 9th scoping meeting.
- NMFS requested that there be a discussion/meeting around information needs for section 7 consultation and information that will be included in the Biological Assessments (BAs). It was clarified that the information in the DPLA is not the same information that will be in the BAs. The BAs, which the applicant will prepare, will include much more detail than the DPLA. PG&E clarified that they will begin preparing the BAs now, and looks forward to working iteratively with the agencies between now and filing the Final Pilot License Application (FPLA) and the BAs with FERC. It was clarified that although PG&E is preparing the BAs, FERC is the action agency that submits the BAs (once FERC has reviewed the BAs and deems them complete) to USFWS and NMFS for consultation; section 7 consultation begins after FERC submits the BAs to NMFS and USFWS and requests consultation, and NMFS and USFWS determine that information in the BAs is sufficient to initiate consultation. It was clarified that the BAs will be stand-alone documents.
- CSLC and NMFS clarified that information needed for NMFS permits for during construction need to be provided to CSLC much earlier than NMFS originally anticipated.
- PG&E clarified that they plan on filing of the Final Pilot License Application (FPLA) in December 2010. It was clarified that the FPLA needs to be filed before the preliminary permit expires in the end of February 2011.
- It was clarified that it is best to file the FPLA and the BAs in January so that the agencies' review process during the FERC comment period does not occur over the holidays. FERC clarified that draft BAs will be submitted to FERC by PG&E, and then FERC will distribute the BAs with their comments to the agencies.

- USFWS clarified that take thresholds are determined on a project by project basis. USFWS does not have take threshold information for this project at this time.
- CDFG clarified that they will determine if there are co-listed species based on information provided in the BAs. Depending on the species involved, a state take permit could be required. CDFG needs to be consulted so that the appropriate permits are issued.
- CSLC clarified that there is a zero chance that they will prepare a Mitigated Negative Declaration (MND). An Environmental Impact Report (EIR) will be required, especially since there are California listed endangered species involved, and the high likelihood of incidental “take” and no current mitigation. Additionally, it eliminates the potential for “the fair argument” challenge on this project, resulting in long delays and potential litigation requiring a more in-depth environmental analysis. Others asked for the EIR process schedule as soon as it is known. The EIR schedule cannot be known until a consultant can be retained. A consultant cannot be retained until PG&E provides the funds.
- NMFS clarified that incidental take/harassment permits are typically issued just prior to construction. CSLC clarified that NMFS will need to get their permit conditions to CSLC if they want CSLC to take into account draft permit conditions in the EIR. NMFS also requested that a clear contact be established for the BA/BO preparation between NMFS and PG&E. PG&E clarified that the contact is Ed Cheslak for PG&E.

Oregon Wave Energy Trust (OWET) Dungeness Crab Study

Presented by Pete Nelson, HT Harvey & Associates

Pete reviewed the results of the OWET Dungeness Crab and Fish Baseline Study that HT Harvey & Associates (HTH) conducted for the Reedsport wave energy project in Oregon. The purpose of the project was to collect baseline data, the “before” component for a Before-After-Control-Impact (BACI) study of the effects of a wave energy conversion project planned for the coastal waters off of Reedsport, Oregon on the local benthic ecology. Based on results of trapping and trawling efforts, HTH evaluated the statistical power of the sampling program to detect a real change in the abundance of crabs and other benthic organisms as manifested by the CPUE (catch-per-unit-effort). Power analyses were used to evaluate the sampling program, and to determine the sampling effort necessary to detect a range of project impacts from a 10-100% reduction in the starting abundance. These results will be useful to PG&E’s monitoring efforts of the benthic ecology at the WaveConnect project site.

Results indicated that the statistical power was strong for detecting differences in CPUE of legal-sized male Dungeness crabs when using standard trap data, exceeding 80% power at 30 to 40% reduction in CPUE (and assuming minimal sample sizes of 20 traps per location for each sampling effort). Statistical power for detecting differences in trawl CPUE of fish and crab was low in comparison to trapping. The inclusion of another “before” impact sampling effort would have the greatest effect on increasing power for trawls; there were also relatively large gains in power by increasing sample sizes from 3 to 15 trawls per location.

The study report can be found here: <http://www.oregonwave.org/wp-content/uploads/OWET-Report-From-HTH-FINAL-mod.pdf>

General Discussion about the Project

The project was discussed in more general terms and the following clarifications were made:

- PG&E shared that they have not made a final determination for the term of the licenses, whether it be five years of operation (8 years, including two years of engineering/construction and one year of decommissioning) or up to 10 years of operation (13 years, including engineering/construction, and decommissioning). PG&E is still evaluating the economics of different license terms.
- When asked about longer term plans for further offshore and commercialization, PG&E clarified that wave energy is a new industry. There will probably be many of projects like this before the industry will be as competitive as the wind energy industry. The real costs of operating and maintaining the devices needs to be proven. At this time it is difficult to say what is going to be found and what PG&E will do next with that information. At this time there is not enough information to pursue a commercial scale project.

Monitoring and Adaptive Management Plans (M&s) – General Discussion

The following clarifications were made about the M& in general:

- FERC clarified that the scope of the studies required should be comparable to the size of this pilot project.
- It was clarified that the devices initially installed may change through the duration of the license. This could be due to a faulty device, or a device that is not performing to standards, etc., or the decision to test an improved device that could may be developed during the operating timeframe.
- FERC clarified that all potential devices used at the site must be included in the FPLA, as FERC permits the use of the specific devices. Also, the project description should be written to encompass all types of devices potentially used in the project. If PG&E wanted to use a device that is not in the license and/or change the energy output of the project, an amendment to the project would have to be filed and approved by FERC. The amendment process is public and all agencies would have an opportunity to provide comments on the amendment.
- CDFG clarified that if a new device were installed, if the number of devices changed, or if spatial arrangement of the devices changed after the M&AM programs began, then M&AM programs should be retriggered. It was clarified that some M&s answer the question at hand regardless of the device types, the number of devices, or the spatial arrangement of the devices, therefore M&s for these types of questions should not be retriggered.
- CSLC clarified that all of the permitting and regulatory agencies involved in this project have the authority to stop operation of the project if the terms of their permit are violated.
- It was agreed that this group needs to discuss and define what types of events would require PG&E to stop the project's operation; specifics are needed up front so the incentives to invest and operate in the project are clear, and so PG&E, the agencies and other stakeholders are clear about what would trigger review and actions, and what magnitude of impact would trigger potentially ceasing project operation.
- USFWS clarified that if murrelets were found to have been killed by the devices beyond what is already identified as acceptable in the BO/take permit, then

consultation would be reinitiated with the Service and operation of the project would be stopped until consultation was complete.

- NMFS suggested that PG&E establish an advisory team with FERC, CSLC, PG&E and other agencies to convene and make M&AM decisions throughout the life of the project. This is common in traditional hydro relicensings. PG&E expressed interest/support for this concept.
- CSCL stated that it would be helpful to describe the M&s through a narrative, including statements about operations and maintenance frequency and how M&s will coordinate with the operations and maintenance schedule.
- NMFS stated that it would be useful to have a flowchart of all M&s to see how they fit together.
- PG&E clarified that there will be back and forth revisions to the M&s up to the filing of the FPLA. PG&E will share revised M&s with the group by May 31, 2010.

Review of the DPLA M& for Marine Mammals

The following items were discussed and clarified regarding the DPLA M& for Marine Mammals:

- HT Harvey & Associates shared revisions to the M& for Marine Mammals that they made based on feedback from the last meeting. PG&E clarified that they will determine if they can file these documents with FERC prior to the end of the comment period, or they will send an email out to this group (via Briana) clarifying why they could not file the revised documents. Having them filed at FERC enables the agencies to address the more recent materials in their comments due on April 30th.
- CSLC and CDFG clarified that marine mammal observations should be conducted for more than two years. It was suggested that triggers be established to identify when marine mammal monitoring should discontinue.
- NMFS clarified that if a Take permit is required, the permit will stipulate the monitoring that is associated with that permit and actions that will be taken if take occurs, and will be separate from the M&.
- CDFG and NMFS suggested looking into U.S. Coast Guard (USCG) helicopter flyovers to assist in marine mammal visual monitoring. PG&E agreed to look into this. All agreed that this could not be a required part of the M& since it's a voluntary USCG activity. CSLC suggested that this coordination effort with the USCG be memorialized in the license application.

Review of the DPLA M& for Fish and Invertebrates

The following items were discussed and clarified regarding the DPLA M& for Fish and Invertebrates:

- HT Harvey & Associates shared revisions to the M& for Fish and Invertebrates that they made based on feedback from the last meeting. PG&E clarified that they will determine if they can file these documents with FERC prior to the end of the comment period, or they will send an email out to this group (via Briana) clarifying why they could not file the revised documents. Having them filed at FERC enables the agencies to address the more recent materials in their comments due on April 30th.
- NMFS suggested that receiver arrays be placed on either side of the project area, specifically to the north and south, in addition to the proposed array. Their interest is in evaluating travel time across the array.

- There was a discussion around the technique and technology used to lay and bury the sub-sea power cable. NMFS was concerned that if a bathymetric survey using sonar is needed prior to laying the cable, it could result in possible marine mammal effects. It was clarified that the technology used to lay the cable digs a trench and then buries the cable. A survey will be done to confirm that the cable has been properly laid and buried. NMFS clarified that it is important for this group to understand the technique used to bury the cable because the environmental effects of the cable lay and burial will have to be addressed.
- CSLC shared that copper-based marine paints may be regulated in the near future due to biofouling issues. It was suggested that PG&E take this into consideration.
- It was clarified that fish finders are a limited monitoring tool in that they aren't able to detect all fish present nor the fish species present. SeaBotix remotely operated underwater vehicles (ROVs) are imaging sonar marine devices that can be used to detect the number and fish species present.
- FERC indicated that control sites should be selected for the FPLA or a process for control site selection should be provided.
- There was a discussion around whether or not agencies would accept white sturgeon being used as a surrogate for green sturgeon in the Department of Energy (DoE) electric and magnetic field (EMF) studies. NMFS shared that it might be possible to use non-listed or hatchery green sturgeon.
- NMFS made a few specific comments on the monitoring plans. They are as follows:
 - There needs to be some sort of study that monitors ambient noise prior to project construction and noise during operations with thresholds for fish and what will be done if thresholds are reached. HTH clarified that an acoustic study is already being proposed for marine mammals that will apply to fish.
 - A sediment chemistry study was suggested and is already being proposed.
 - To each Monitoring and Adaptive Management Plan for each Issue identified, a section on reporting should be added (i.e. 2.1.5, 2.2.5, 2.3.5, etc.). This section should include frequency of reporting, type of information that will be included in the report, who will receive the report and how it will be distributed.
 - Page 13, 2.2.2: need to monitor for longer than one year
 - Section 2.6: WECs and associated components will provide structure onto which non-native species could colonize. This should be considered in addition to the shell mounds that may form beneath. HTH clarified that this has been incorporated into the draft M&.
 - EPA did sediment monitoring at the Humboldt Open Ocean Disposal Site (HOODS) in 2008. This information should be used for baseline data. (Also please confirm that HOODS is not in the project area on page 5.3.2-22).
 - For sampling pelagic species to detect FAD attraction by the buoys, not sure if relying only on multi-mesh gillnets will be sufficient. Suggest some opportunistic hook and line sampling for visually adept pelagics.
 - There's not enough detail in the report on what species of elasmobranchs have already been tagged for acoustic monitoring. It is stated that existing tagged sharks could be detected by the listening stations proposed, but if

no detections were made they would determine if the numbers tagged were too low. Why not make that determination now and lay out how many and what species are tagged along with when tagged and what areas they were tagged in? Seems as though it may be appropriate to do some contemporaneous supplemental tagging of sharks in the project area to achieve a large enough sample size to sample anything concrete.

- Add thresher sharks to the list of elasmobranchs in Table 5-3-3.4. If the FADs attract bait fish, threshers could hone in on the signal and feed on that aggregation. There are large thresher sharks in that area albeit in small numbers.
- El Niño years impact distribution and abundance as well; would suggest including in this in the plan.
- The report mentions that adult albacore are generally found further offshore and therefore will not likely be in project area. The albacore that are caught in west coast fisheries are sub-adults for the most part. But after talking with Jim Simondet (NMFS Arcata) who fishes that area for albacore, he says the sub-adults are usually targeted 5-10 miles or further offshore unless there's an El Niño event, when they can move in closer.
- The report references thresher sharks having reproduction habitat to the south of the project area. Not sure what article is being referenced, but we do not have a good handle on actual spawning and nursery habitat for thresher on the west coast so this may be speculative.

Review of the DPLA M& for Seabirds

The following items were discussed and clarified regarding the DPLA M& for Seabirds:

- Stillwater Sciences shared revisions to the M& for Seabirds that they made based on feedback from the last meeting. PG&E clarified that they will determine if they can file these documents with FERC prior to the end of the comment period, or they will send an email out to this group (via Briana) clarifying why they could not file the revised documents. Having them filed at FERC enables the agencies to address the more recent materials in their comments due on April 30th.
- There was a discussion around the effectiveness of the proposed seabird carcass surveys. The group discussed whether or not it is possible to attribute the death of a seabird to the project using this method. It was also agreed that carcass surveys are a powerful tool to for understanding trends in seabird mortality because they can identify increases in mortality in seabird populations. This potential methodology will be a topic for further discussion.

Next Steps

- PG&E will file revisions to the M&s with FERC, if possible; otherwise PG&E will send an email to the group on why it was not feasible. PG&E would like for the agencies to comment on these revised documents in addition to the M&s in the DPLA.
- PG&E will address the agencies' and others' comments on the M&s, and provide revised plans to the HWG Permitting Authority Subcommittee by May 31st.

- FERC/CSLC Public meeting regarding the NOP/NOI will be held in Eureka, CA on Wednesday, June 9th. A site visit of the land based project area will occur on Tuesday, June 8th.
- The next in-person HWG Permitting Authority Subcommittee to review the revised M&s and DPLA comments will be held on Wednesday, June 23rd.

Action Items

Action Item	Who	When
1. Convene a meeting with CDFG, USFWS, NMFS, PG&E and HT Harvey to continue discussions regarding use of gill nets as a monitoring technique.	1. Ed Cheslak and Gina Morimoto, PG&E	1. ASAP
2. FERC to provide an update on the FERC/California state MOU for hydrokinetics	2. Ken Hogan, FERC	2. ASAP
3. PG&E & CSLC to coordinate preparation of a funding agreement for the CEQA consultant	3. Ian Caliendo, PG&E and Steve Mindt, CSLC	3. ASAP
4. Prepare a timeline of when all draft permits will be filed (401, etc).	4. Doug Davy, CH2M HILL	4. ASAP
5. CSLC to share the EIR schedule once it is known.	5. Steve Mindt, CSLC	5. When known
6. PG&E to establish lead contact (Ed Cheslak).	6. Ed Cheslak and Gina Morimoto, PG&E	6. Done
7. PG&E to look into coordinating Marine Mammal visual monitoring plans with USCG helicopter flyovers.	7. Ed Cheslak and Gina Morimoto, PG&E	7. In M&AM Plans
8. Send a revised subcommittee contact list to the group, including PG&E representatives	8. Briana Moseley, Kearns & West	8. ASAP
9. PG&E to file revisions to the M&s with FERC, or send an email to the Subcommittee explaining why this is not possible.	9. Ed Cheslak and Gina Morimoto, PG&E	9. ASAP
10. PG&E to incorporate agency comments and prepare revised M&s for distribution to the subcommittee by May 31, 2010	10. Ed Cheslak and Gina Morimoto, PG&E	10. May 31, 2010

11. All agencies to include copies of documents referenced in their formal comments to FERC/CSLC	11. All agencies	11. ASAP
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Attendees

Agencies:

- Vicki Frey, California Department of Fish & Game
- Michael Van Hattem, California Department of Fish & Game
- John Dye, California State Lands Commission
- Steve Mindt, California State Lands Commission
- Ken Hogan, Federal Energy Regulatory Commission (*by phone*)
- Lesley Kordella, Federal Energy Regulatory Commission (*by phone*)
- Diane Ashton, National Marine Fisheries Service
- Monica DeAngelis, National Marine Fisheries Service (*by phone*)
- Dave White, National Marine Fisheries Service (*by phone*)
- Bill McIver, U.S. Fish and Wildlife Service
- Tom Haug, U.S. Coast Guard

PG&E:

- Robert Blair, PG&E
- Ian Caliendo, PG&E
- Ed Cheslak, PG&E
- Gina Morimoto, PG&E
- Erika Brand, PG&E

PG&E Consultants:

- Doug Davy, CH2M HILL
- Jeff Jacobsen, H.T. Harvey & Associates
- Sharon Kramer, H.T. Harvey & Associates
- Pete Nelson, H.T. Harvey & Associates
- Rick Williams, SAIC
- Christine Champe, Stillwater Sciences
- John Whittaker, Winston & Strawn LLC (*by phone*)

Facilitators:

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