

## Humboldt Working Group

### Permitting Authority Subcommittee Meeting Conference Call

February 17, 2010

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#### Conference Call Summary

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#### **Overview**

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

The purpose of today's call is to receive agency feedback on the Monitoring and Adaptive Management (M&AM) Plans for major edits before they are included in the Draft Pilot License Application (DPLA). The M&AM Plans are not final and can be edited until the Final Pilot License Application (FPLA) is submitted. The Permitting Authority Subcommittee will convene on March 18, 2010 to more thoroughly review and discuss details of the M&AM Plans.

In general, any clarification on how species, numbers (time duration, quantities, and distances) or M&AM were decided upon would be helpful. Agency members tended to focus on one M&AM Plan to offer feedback on a particular section. They intend to read all sections and gather feedback from others before the next meeting. Additionally, more "if, then" statements would be helpful for decision making in future scenarios. Issues that have been addressed and found to be insignificant should be noted so it is known they have been recognized.

The M&AM Plans focused in three species areas: marine mammals, fish and invertebrates, and seabirds. The following issues and questions were raised with these plans:

#### **Marine Mammals**

- Within the plan, there's no discussion how these species were chosen; maybe it's in the DPLA itself but that's unclear.
  - CH2M HILL clarified that this is addressed in the DPLA, but we can do a better job referring back to this in the M&AM Plan.
  - The DPLA needs to show that these are the most likely species in the area.
- Clarify that the purpose of certain monitoring is to see if certain species are even present (or absent).
- Need to clarify what adaptive management will happen if haul-outs are found to occur.

- How will the frequency of lost fishing gear and removal be determined? It is unclear how big this problem is.
  - CH2M HILL clarified that the frequency will be highest during crabbing season, so this is the metric we will use.
- Pg. 7: how was the detection distance of 300 meters (m) determined?
  - Jeff: Based on marine mammal harassment length and the longest length of rope on a crab pot. In other words, 300 m is the worst case scenario.
  - Monica: NMFS recommends a 500 m distance in another situation for acoustic monitoring, to be furthest away as possible, unless another distance is specified. The 300 m distance seems appropriate, but needs to be explained.
- Is a person trained for marine mammal rescue necessary for the DPLA? Delete this for now.
- The language of “loudness” for acoustic monitoring can be softened by putting it into context, by clarifying whether WECs are louder *than* ambient noise or continuous above ambient noise.
  - Also, explain noise thresholds for behavioral changes versus injury levels.
- Why aren't there visual observations with cameras for entanglement?
  - Jeff: Cameras will capture entanglement on WECS, but we're expecting entanglement to occur on the cables, some distance from the WECs.
- It would be helpful to include what inputs (studies, publications, etc.) influenced these plans.
  - Both what information was useful and what was not, and why.
- Explain why you proposed particular approaches in the M&AM Plans.
- Pg. 9: If pingers are useful in repelling marine mammals, why not install them from the beginning rather than later as adaptive management?
  - Comment was provided that if acoustic deterrence devices are going to be considered, they should be analyzed in the noise evaluation in the adaptive management plan and potential for environmental impacts to the target and non-target species.
- Pg. 11: Will we receive information from the WEC manufacturers on their devices' noise levels in the RFP?
  - Rick: It depends on the devices' level of sophistication, but we do not expect to receive this information.
- Pg. 18: We do not expect gray whales in this area. The M&AM Plan should focus on monitoring for haul-outs.
  - Comments were provided that the M&AM Plan should focus on those species (or if not species specific than by group, such as small cetaceans, pinnipeds, etc.) that may interact with the devices (i.e., with the information known now, that are thought to potentially interact with the project). The Plan should include monitoring for potential haul-out use by pinnipeds. The design of the devices should incorporate deterrence measures before being put in the water and NMFS would be happy to assist with the design plan. Then, the effectiveness of those deterrence methods should be evaluated and modified, if necessary, once in the water.
- Pg. 8: Monitoring will take place for one year before and after installation, and then as needed; describe how monitoring “as needed” will be determined.

- NMFS clarified that should a permit under MMPA be needed, this monitoring scheme would likely change.
- Species may not become entangled even if the threat is there. Since the threat remains, there must be steps to reintroduce M&AM in the future as needed.
- Triggers need to be built in as “if \_\_, then \_\_” statements.
- Although Tom Luster is offering feedback, the California Coastal Commission has the final say and they may want more or less information.

### **Fish and Invertebrates**

- Pg. 7: Rockfish are not listed as threatened species, but their populations are depressed. They could be affected by increased predation.
- Pg. 8: Tethered fish cannot escape, so predation is probably higher than normal. Maybe this should be removed from the M&AM Plan until it can be further discussed.
  - Sharon: We may not pursue the tethering technique, but it is an option for now. Tethering rates are not exact, but they are an indicator.
- Pg. 7: While there might not be an increased amount of predators, there may be increased amounts of prey. This could result in different diet proportions in predators.
  - Sharon: We can determine changes on proportion by testing at the WECs and at a control site.
  - Another option, instead of testing before and after installation, is to test prior to installation and then a period afterwards.
- Since there is no baseline information here, it would be useful to have pre-installation information or control sites.
- Pg. 11: The multi-mesh gill nets will help mitigate take of listed fish species because the mesh will be too large to capture the smaller fish (e.g., salmonid smolts) but will be large enough to capture predators.
- An explanation of the difference between fish aggregating devices (FADs) and artificial reef effects, and why both types of attraction are being studied, would be helpful.
  - Clarify their relationship to species and the approach to monitoring.
- Lights can act as FADs, attracting prey and predators, so they should be addressed in the M&AM Plans.
  - The lights on the project will be set for other humans and boats to see, so none/very little will point directly at the water.
  - If this has been discussed and ruled out of the M&AM Plan at an earlier discussion, this should be noted somewhere.
  - Is there information from MMS on oil platforms experience that might be useful? Much brighter lights; what are the effects they've found?
- Pg. 15: Should these five questions on EMF and Green Sturgeon be reordered?
  - They are currently ordered as we anticipate getting the information.
- Pg. 20: Diane Ashton asked how the 20% tagged green sturgeon population trigger was chosen. She mentioned that, based on information from David Woodbury, only a small percentage of the population is tagged. She clarified that under section 7 consultation, NMFS's analysis is on effects to individuals, so one fish would be sufficient to trigger further investigations.
- Have EMF effects from the WECs themselves been considered? Have EMF effects from the riser cable (i.e. the cable between the WEC and the buried

cable) been considered?

- Rick: EMF will be substantially less than in the cables because of the shielding of the WEC devices' material. Energy fields will be shielded but there may be small magnetic fields.
- We intend to measure this in the Reedsport project.
- Three to six WEC devices will be linked to a cable by feeder lines.
- Still determining how to deploy monitoring equipment that may interact with commercial fisheries.
  - They will not be deployed year-round, but it has not been detailed yet.
  - Concerned about the receivers, how they will be maintained, and impacts to commercial fisheries.

### **Seabirds**

- Issue 1, lighting, seems to be the biggest concern, though the flowchart seems to indicate it moves quickly toward a non-concern.
  - Rick: There will be no additional lights beyond what is required.
  - Need to clarify potential effects of the required lights. If you are not able to changed required lighting and there are impacts, what action will be taken?
- It seems that the monitoring is based more on the US Coast Guard's (USCG) navigational requirements than on the impacts to seabirds.
  - How effective is the proposed method of carcass surveys, particularly under different weather conditions?
  - Perhaps we can experiment now to have time to modify before the project is installed.
- Rick: Boundary markers will be the brightest.
  - Christine: white light might be the worst. What surveys are feasible given the timing of the project? If we see an impact, should we acknowledge and/or mitigate it?
  - Rick: a top hat on the light can reduce upward lights for birds, but there may be a way to angle it so it's visible to boats.
  - Rick: boundary marker buoys – 6 of them, will be brightest.
- Bill McIver may have additional thoughts on lighting.
- We are planning to have 3 carcass studies in spring/summer and 1 additional in winter.
  - Concern on effectiveness of carcass studies.
- Final designs are needed before the team can have confidence in the plans.
- There are some papers on bird collision at offshore oil platforms, lighthouses and stadiums. However, those lights are much brighter than what would be used here and are constant.
  - An executive summary on these papers would be helpful to show that a lower risk is expected here.
- There may be a way to measure bird strikes rather than carcasses; this might be a more accurate monitoring plan.
  - Christine: Experts say that documenting collisions, passive systems, doesn't seem feasible for this offshore facility.
- One night, observers could stay offshore and use radar to document whether flight patterns change. Chances of observation are very low.

- The observation boat may influence behavior itself, especially if it also has lights.
- Maybe observers could watch a buoy surrogate (row boat with a light) at night to see how birds react to it.
- SAIC has information on this.
- The Klamath Bird Observatory has superior information, but it will not be available for a couple months.
- The Reedsport proposal might be useful to study if there are similar species.

**Action Items**

<b>M&amp;AM Plan</b>	<b>Action Item</b>	<b>Who</b>	<b>When</b>
1. All	1. Refer back to the baseline information in the DPLA in the M&AM Plan section.	1. D. Davy, CH2M Hill	1. In DPLA draft, if possible
2. All	2. Clarify the approach or process of seeing what species are in the area.	2. D. Davy, CH2M Hill	2. In DPLA draft, if possible
3. Marine Mammal	3. Remove the marine mammal rescue specialist for now.	3. D. Davy, CH2M Hill and J. Jacobsen, HT Harvey	3. In DPLA draft, if possible
4. Marine Mammal	4. Send additional comments to the PG&E team.	4. M. DeAngelis and Subcommittee members	4. In DPLA draft, if possible
5. Marine Mammal	5. Explain the lack of camera observations for marine mammal entanglement.	5. J. Jacobsen and S. Kramer, HT Harvey	5. In DPLA draft, if possible
6. Marine Mammal	6. Review the entire M&AM Plan for consistency.	6. J. Jacobsen and S. Kramer, HT Harvey	6. In DPLA draft, if possible
7. Fish & Invertebrates	7. Contact David Woodbury about tagged green sturgeon encountering the project.	7. S. Kramer, HT Harvey	7. In DPLA draft, if possible
8. Fish & Invertebrates	8. Create a conceptual drawing of the typical buoy riser and some components of the WEC devices.	8. R. Williams, SAIC and D. Davy, CH2M Hill	8. In DPLA draft, if possible
9. Fish & Invertebrates	9. Asterisk that the order of questions on page 15 is based on when information will be received.	9. J. Jacobsen and S. Kramer, HT Harvey	9. In DPLA draft, if possible

10. Fish & Invertebrates	10. Include that there are 40 tagged fish in a population of 1000-1500 spawning fish in the Sacramento River.	10. J. Jacobsen and S. Kramer, HT Harvey	10. In DPLA draft, if possible
11. Fish & Invertebrates	11. Change the fish threshold from 20% to one fish.	11. S. Kramer, HT Harvey	11. In DPLA draft, if possible
12. Fish & Invertebrates	12. Invite David Woodbury, NMFS, to the March 18 Subcommittee meeting.	12. D. White, NMFS / K&W	12. Prior to 3/18
13. Seabirds	13. Create an Executive Summary of bird collisions caused by light.	13. C. Champe, Stillwater Sciences	13. As possible
14. Seabirds	14. Find information on NOAA buoy chains, wave/meteorological buoys, and Scripps' buoys (wave riders).	14. R. Williams, SAIC	14. Prior to 3/18
15. Seabirds	15. Find out if Reedsport applied M&AM to similar species.	15. C. Champe, Stillwater Sciences	15. Prior to 3/18
16. Seabirds	16. Gather information on MMS oil platforms experience on light impacts for birds.	16. C. Champe, Stillwater Sciences, PG&E team	16. Prior to 3/18

## Attendees

### Agencies:

- Tom Luster, California Coastal Commission
- Vicki Frey, California Department of Fish & Game
- Michael Van Hattem, California Department of Fish & Game
- Eric Gillies, California State Lands Commission
- Steve Mindt, California State Lands Commission
- Ken Hogan, Federal Energy Regulatory Commission
- Lesley Kordella, Federal Energy Regulatory Commission
- Diane Ashton, National Marine Fisheries Service
- Monica DeAngelis, National Marine Fisheries Service

### PG&E and Consultants:

- Bill Toman, PG&E
- Erica Brand, PG&E
- Ed Cheslak, PG&E
- Brendan Dooher, PG&E
- Don Price, PG&E
- Ian Caliendo, PG&E
- Mike Gunby, PG&E

- Doug Davy, CH2M HILL
- Aarty Joshi, CH2M Hill
- Paul Jacobsen, EPRI
- Jeff Jacobsen, H.T. Harvey
- Sharon Kramer, H.T. Harvey
- Rick Williams, SAIC
- Christine Champe, Stillwater Sciences

Facilitators:

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