



REEDSPORT WAVE ENERGY PROJECT Marine Mammals

February 6, 2007

In attendance:

Steve Kopf, OPT
Therese Hampton, Oregon Solutions
Brent Norberg, NOAA Fisheries
Bridgette Lohrmann, NOAA Fisheries

Meeting Summary

The meeting started with a brief overview of the types of permits under the Marine Mammal Protection Act (MMPA). Brent described that there are 2 types of permits.

- Letter of Authorization (LOA). This is a rulemaking process that is initiated to provide coverage for new but likely regular activities that will have impact to Marine Mammals. NOAA would initiate this process and it takes years to complete through the process. Once complete, specific projects are provided authorization under the LOA.
- Incidental Harassment Authorization (IHA.) This provides coverage for short-term harassment associated with a project. It takes 120 days for the process and provides authorization for 1 year and can be renewed for 1 additional year. This would be the permit to pursue for this project.

The remainder of the discussion included an overview of the project and discussion in the topic areas that Brent indicated he would want to look at for questions about impact:

1. Mooring Lines. A lot of the discussion focused on potential for marine mammal entanglement. Brent indicated that grey whales swim with their mouth open and will often swim on their side. Therefore, a mooring cable either horizontal or vertical could be of concern. The 5 inch diameter of the mooring cables makes entanglement less of a concern but still a potential impact to consider. Harassment of some sort seems the most appropriate. There are many types of harassment. Brent suggested reviewing research done by Dr. Tyack on the types of harassment. .
2. Float attraction. Many options to reduce pinniped haul-out onto the buoys were discussed. Brent suggested many methods currently under design and test: a wavy rack, vertical pipes, etc. Depending on the expected presence of harbor seals, some options may be better than others. Brent did share that he MMPA was changed in 1994 to allow for harassment of mammals in routine maintenance of your property. There is a Q&A on NOAA website on this issue.

3. Sound inherent in the device. Brent was interested in whether there was any general noise from the buoys, any strumming from the mooring lines, or other aspects of the wave park that needed to be considered.
4. Less toxic coatings. Is there the potential to use less toxic anti-fouling coatings? Steve shared that OPT is interested in reducing growth on the float, but it is actually beneficial to have growth on the spar.
5. Species List. The initial list provided looked reasonable. Need to look into the presence of porpoises, grey grampus, and the distance traveled by harbor seals. Turtles do not seem to be an issue in this area. Only leatherbacks are found in this area but their migratory path through this area hasn't been clearly established. Brent recommends review of the EBASCO Services aerial survey study of the West Coast (It might also be cited as J. Bragammon).
6. Affect on sedimentation. The impact to wave energy is expected to 12% in the area of the wave park. Given the 50 meter depth at the park and the mixing of waves beyond the wave park, no significant impact to sedimentation is expected.
7. Sharks. Brief conversation about the electromagnetic field. Steve shared that initial review indicates that sharks will not be attracted from long distances. There may be some reorientation by sharks in the local area, but the literature isn't conclusive.

Next Steps:

- Set up similar meeting with NOAA Science Center expert on ground fish
- Steve and Devine Tarbell to do research and present additional information at March 5th meeting.