

Game and through fund-raising. She noted that while the watershed programs remain strong, the pen-rearing program could be jeopardized by the lack of salmon fishing as it is primarily funded by the salmon stamp program. Ms. Leary thanked Ms. Paddack and Mr. Hessellund for coming and for the information. Mr. Doughty asked about the shape of the pens. Mr. Hessellund said 2 of the pens are in fairly decent shape, but they need some supports for the bird netting. Chairman Phillips asked if the pen-rearing program will start next year. Ms. Paddack said they hope so, if the program is still supported by Fish & Game. Mr. Phillips asked if the salmon season is closed for the entire west coast. Ms. Paddack said the closure does affect the entire west coast. Mr. Phillips thanked Ms. Paddack & Mr. Hessellund for their presentation.

IV-2. Presentation on Green Wave Energy

Mr. Algert introduced Dmitri Jarocki, one of the City of Morro Bay Harbor Department's Beach Lifeguard Coordinators, and a General Engineering student at Cal Poly to provide some information to the Board on GreenWave Energy. Mr. Jarocki noted that due to technical difficulties a portion of his graphics was not available. Mr. Jarocki said he obtained funding from the Cal Poly General Engineering Department to attend the Global Marine Renewable Energy Conference in New York in April. He said he would provide the Board with some information on the current technology, the resource potential for wave energy and the federal permitting process.

The two main current technologies are Wave Energy Converters (WEC), and Tidal/ocean current turbines. Other technologies being researched are: Ocean Thermal Energy Conversion (OTEC) and salinity gradient (Blue Energy), offshore wind and marine biomass.

The most common technology being used is the WEC system. Mr. Jarocki described the basic technology of the three main types of WEC designs being looked at currently; terminators, point absorber buoys and attenuators. He stated that there is a lot of energy potential possible with this technology, but with relatively low efficiency. Mr. Jarocki noted that the California Energy Commission did a study in 2008 looking at the potential for wave-generated power in the state. The top 3 locations in the state were: Pt. Arguello, Big Sur and Eureka areas. Nationwide, the majority of wave energy potential is in Hawaii and Alaska.

Mr. Jarocki said the Federal permitting is the most difficult aspect of the technology at this point: Federal Energy Regulatory Commission (FERC) has a preliminary permit for test projects in 4 categories: wave, ocean current, tidal and inland. The preliminary permit is for 3 years and is for the testing and feasibility studies - not for construction. The buoys run about 1 megawatt per buoy. There are Morro Bay Power Plant is rated at 1002 megawatts, so most of the buoys would be rated at 1/1000 of the MBPP per buoy.

FERC is now implementing a policy of "strict scrutiny" to rule out prospecting just for the value of the site in the future. The new requirements require the project provide: appropriate size, more details on technology, semi-annual reports on progress, and cancellation of the permit if there is no progress on the project.

Mr. Luffee asked if there are there any operational on the west coast now. Mr. Jarocki said there are some in testing, but no wave energy converters in operation on the West Coast. There are several test sites being looked at such as in Washington's Puget Sound. There was a test project buoy in Oregon, but that is not operational at this time.

Chairman Phillips asked if the permit and license are separate processes. Mr. Jarocki said they are; the preliminary permit is temporary (for 3 years) and for testing the technology, the permit

or conditioned license is for facility construction and power production and can be for as long as 30-50 years.

Mr. Jarocki noted that the Minerals Management Service (MMS) may also be a part of the process under the Energy Policy Act as they have the right to lease the outer continental shelf. There are 45 leases proposed nationally. They plan to start issuing the leases this year. These are 5-year leases and exclude offshore wind production. The sites in California are mostly off Eureka and Fort Bragg. There is an EIR being sponsored by the MMS to look into the effects of power lines on marine species, visual impacts and pile driving effects.

Mr. Jarocki said that GreenWave Energy is applying for a preliminary permit from FERC, but he has not seen anything specific on community notification/input. Mr. Algert agreed that is a key question and said at this point the only way the City found out about this was through some e-mails from another agency working on the permit. Mr. Algert thanked Mr. Jarocki for his presentation.

Mr. Ewing said implementation of the preliminary permit would probably restrict fishing in the area and that the project could create problems with the existing cables buried in that area. He said he feels the Board/City should contact FERC, MIS and elected officials stating that any permits in this area should be restricted. Ms. Meissen said she tried to find out something about GreenWave Energy on-line and only found one thing on U-Tube that showed the system. Ms. Meissen said that 17 square miles from Pt. Buchon to Morro Bay is substantial. Mr. Algert noted that the GreenWave FERC application is not clear which technology they plan to use. Mr. Jarocki said that is the case and that is partially why the permit was denied and sent back for revision as the new FERC policy requires a description of the specific technology that will be used and the area that it will be placed in.

Chairman Phillips said his main concern regarding the proposed project in the Central Coast area would be the potential for the project to preclude boat travel within the area. He said he is also concerned that while the underwater portion of the project may not be visible, the buoys would certainly be. Chairman Phillips said he feels it is critical for the City of Morro Bay to be involved in the permitting process and specifically "intervener" status. Chairman Phillips thanked Mr. Jarocki for all the information he provided.

Chairman Phillips asked the Board for comments on the issue. Ms. Meissen said that some type of green wave facility was implemented in Coos Bay Oregon, but that it got washed away in a big storm. Mr. Doughty noted that at one point there was a generator at the Cayucos pier, but that one also got washed away in a large storm. Mr. Ewing said he is not against looking at that type of project, but that it should be limited to an area such as Diablo Canyon, which is already off limits to fishermen and boaters.

Chairman Phillips asked if there is any way to find out from FERC or MMS if there has actually been an application submitted or a permit issued. Mr. Jarocki said the FERC web site indicates that a permit has been submitted but no permit has been issued yet. Chairman Phillips noted that in the case of Fort Bragg, the County of Mendocino was the intervener. He asked if anyone on the Board would like to volunteer to join him on an ad-hoc committee to look into the issues relating to the Green Wave energy permit being applied for in this area. Mr. Doughty and Mr. Ewing volunteered.

MOTION: Mr. Ewing moved that the Harbor Advisory Board form an ad-hoc committee to look into Green Wave energy issues consisting of Chairman Phillips, Mr. Doughty and himself. The motion was seconded by Chairman Phillips and carried unanimously.

V. INFORMATION ITEMS

V-1. Harbor Department Status Report

Mr. Algert briefed the Board on the following items:

Dredging: Dredge Yaquina to arrive June 20-22. Buoys 4, 4A and 6 will be moved.

Salmon Disaster: Congresswoman Capps put out a press release today noting that a full fisheries failure disaster declaration has been issued for the West Coast Salmon Fishery.

Budget Hearing: May 8, 6:00 PM (2nd budget hearing scheduled for May 15 if needed)

Upcoming Events

City Council Action

VI. ADDITIONAL COMMENTS

Mr. Luffee asked what the status is on the proposed Harbor Building replacement. Mr. Algert said the item is in the recommended Harbor Fund budget and will be reviewed at the May 8 Budget Workshop. Chairman Phillips asked what was happening in regards to the State Park Marina dredging. Mr. Algert noted that Anchor Environmental is looking into the potential of using offshore disposal for the dredged materials, which could significantly reduce the overall cost of the project.

VII. FUTURE AGENDA ITEMS

June 2008: Liveaboard Ordinance Status Report

State Park Marina Update

August 2008: Harbor Department Budget

VIII. ADJOURNMENT

This meeting was adjourned at 8:30 P.M.

Submitted by,

Susan Lichtenbaum
Harbor Department