

ISLAND COUNTY MARINE RESOURCES COMMITTEE

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Minutes

Prepared by Dan Pedersen

Mar. 2, 2010

COUNTY COMMISSIONERS' HEARING ROOM B-102, COUNTY ANNEX BLDG., COUPEVILLE

PRESENT: Chair **Ian Jefferds** (presiding), **Lenny Corin**, **Leal Dickson**, **Judy Feldman**, **Sarah Haynes**, **Matt Kukuk**, **Steve Mitchell**, **Dick Toft**, **Ken Urstad**, **Stan Walsh**, **Frances Wood**, **Todd Zackey**, Executive Director **Rex Porter**, Communications Manager **Dan Pedersen**. **ABSENT:** **Hi Bronson** (Hawaii), **Marshall Bronson** (unknown), **Joe Hillers** (traveling), **Helen Price-Johnson** (conflict), **Linda Rhodes** (San Diego).

VISITORS: **Craig Collar**, Snohomish County PUD (speaker); *from Jefferson County* **Phil Johnson**, county commissioner; **Michael Adams**, Jefferson County MRC chair; **Pat Pearson**, WSU Extension, Jefferson Co.; **Al Bergstein**, Jefferson MRC and board of People for Puget Sound; **Tony Petrillo**, **Steve Lewis**, **Gabrielle LaRoche**; **Phyllis Kind**, former chair Island County MRC and Northwest Straits Commission; **Ginny Broadhurst**, Northwest Straits Commission; **Don Meehan**, Coupeville, WSU Extension; **Peg Urstad**, Greenbank, WSU Beach Watchers advisory committee; **Robin Clark**, Whidbey Watershed Stewards; **Scott Chase**, Camano Island, Island County Shore Stewards; **Linda Pilkey-Jarvis**, Washington Department of Ecology Oil Spill Program; **LCDR Wade Gough**, US Coast Guard Sector Seattle; **Sandra Pollard-Snowberger**, WSU Beach Watchers and Orca Network volunteer; **Chris Luerkens**, lead entity coordinator, Island County Environmental Health; **Bobak Talibe**, Island County Planning Department; **Kyla Walters**, Island County Planning Department; **John Roomes**; **Sammye Kempbell**, WSU Beach Watcher; **Ralph Edwards**, Capt. USN retired; **Jeff Kallstrom**, Snohomish PUD; **Jessica Spahr**, Snohomish PUD; **Marie Piper**, Oak Harbor, Island County Public Health; **Darrell Jacobson**, Seattle Pacific University – Camp Casey; **Jackie Vannice**, WSU Extension – Island County.

CALL TO ORDER: 3:35 pm. **QUORUM:** Declared. **AGENDA:** Approved. **MINUTES** of Feb. 16, 2010: Approved. Motion by Toft, second by Urstad, carried unanimously.

CORRESPONDENCE: None.

SPEAKER

Admiralty Inlet Tidal Energy Pilot Project Craig Collar, Snohomish Public Utility District

Collar explained one of the reasons his utility is looking at tidal energy is because of load growth. Snohomish County and the surrounding area are growing rapidly with about 7,000 new connections each year, and the utility is obligated to meet the requirements of Washington's renewable energy portfolio standards. Eighty-five percent of Snohomish PUD's current energy generation is hydropower. None of that counts toward meeting the renewable energy requirement. The PUD needs to find about 140 megawatts of new renewable energy, enough to power a city the size of Bellingham, and there are a limited number of places to find it. Wind turbines to date have been the only large, commercial-scale, renewable energy resource available. At most utility companies, including Snohomish, only a few people work on renewable energy. The vast majority of emphasis goes into

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conservation and energy efficiency. “That 140 megawatts of renewable energy we need assumes we will do a world-class job on energy conservation and efficiency. If we don’t, it could be twice as big. So energy efficiency and conservation is by far the most important thing we do.”

Collar pointed out that even though tidal energy gets a great deal of attention in this area, it is only one of the renewable options the utility is looking at. In the last two years Snohomish PUD has added 220 megawatts of wind capacity, which brings the utility to the highest percentage of wind of any utility in the Northwest. They also have a solar program and are working on geothermal energy, planning to drill some test wells this year. They also have wood and landfill gas biomass, and are quite involved in energy storage activities. One of the challenges of wind power is its unpredictability and intermittency, but utility-scale energy storage capability largely alleviates those problems. Snohomish PUD is a founding partner in an energy storage study under way right now. So in the overall picture of activities, tidal is a relatively small slice.

Collar said people often ask why Snohomish PUD doesn’t just go out and build more wind capacity. The answer is because one never knows when the wind will blow, nor how hard. It can blow quite hard for several days and then go dead for weeks. But the peaks and valleys of load continue on a predictable cycle. In addition, it is growing more difficult to site wind energy projects, and increasingly this power is being sent to California. “There is a lot of concern that California interests will build a lot of wind projects, strip off the green credits, and use that to meet the needs of their state’s renewable energy standard.”

Tidal energy helps offset those negatives because it is clean and extremely predictable. It is located close to the Puget Sound population centers, whereas wind tends to be very distant, requiring long transmission lines with the resulting transmission losses. Currently, Snohomish PUD has licenses from the Federal Energy Regulatory Committee (FERC) to study just two sites, Admiralty Inlet and Deception Pass. The object at this time is to focus on a small-scale pilot project in just one place and learn from it, so they can gather the data necessary to answer the technical and environmental questions. They chose Admiralty Inlet because the tidal current is sufficiently strong and the area is large, so that any deployment will impact only a tiny percentage of the available opening. The depth is sufficient to keep the devices out of the way of navigation and the seafloor is suitable for these generators. Collar said Snohomish PUD considered about 35 or 40 different devices and selected a design built by Open Hydro. He pointed out they are one of only about two or three companies in the world that have actually deployed and tested their design, with about four years of experience running their turbine in the Orkney Islands.

Collar pointed out the turbine is shrouded and the only part that moves is the inner rotor. So there are no exposed blade tips, which hopefully would reduce any hazard to fish and marine mammals. In addition it turns relatively slowly, at about 10 – 15 rotations per minute. It is lubricated by water, so no oil or grease is introduced to the marine environment. No drilling is necessary in the seabed, since it simply sits on the bottom. When it is removed for maintenance the entire device is lifted to the barge, leaving nothing behind. The device will be deployed in about 60 meters of water and will extend upwards about 20 meters. The rotor itself is about 10 meters in diameter and the blades are essentially Fiberglass. Dry weight is about 450 tons. The device is deployed and retrieved from a custom-built, catamaran-style barge.

Collar said many questions still need to be answered about tidal energy generation. Does this technology represent true, utility-scale power potential? If so, could these devices be deployed in Puget Sound economically? They would have to be competitive with wind. Is this technology compatible with all the different interests and agendas competing in Puget Sound? From a regulatory

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standpoint there really is no established process yet for licensing and permitting these installations. And then there are the environmental questions, which are so hard to answer until devices are deployed and tested, and data becomes available.

Snohomish PUD currently is in the hydrokinetic pilot project licensing process phase with the Federal Energy Regulatory Committee (FERC). FERC has just concluded the period for gathering public comment. The next step will be a technical conference in April, leading to submission of the final license application in July of this year, and presumably the granting of a license by July of next year, with installation probably no earlier than 2012. Ballpark estimate of the cost of the completed pilot project, with two turbines installed and cables laid, is in the range of \$10 million. The Navy anticipates installation of its own pilot project on the other side of Admiralty Inlet in 2013.

Update on Department of Ecology Oil Spill Program

Linda Pilkey-Jarvis, Washington Department of Ecology

Pilkey-Jarvis said she and LCDR Wade Gough are with the Northwest Area Committee, a group that develops and maintains the Northwest Oil Spill Contingency Plan. She pointed out this area is in the middle of the bullseye when it comes to the risk of oil spills. We are on the eastern end of the Strait of Juan de Fuca. All the vessels bound for Canada and the US pass through here. This is the intersection of several major shipping routes, plus the third largest Naval complex in Puget Sound, and we have ferries traveling perpendicular to the shipping routes. We have oil refineries to the north and two of the largest pipelines in the state. The risk of oil spills is assessed in terms of probability and consequence. With the big oil companies and pipelines that operate here, the probability of a spill is low but the consequence if one occurs is high.

The Northwest Area Plan is all about preparedness – doing everything possible to be prepared to reduce the impact of any spill. Pilkey-Jarvis said new regulations recently enacted by the state enable the committee to track the number of oil transfers much better than in the past. Last year 7.2 billion gallons of crude oil passed through this area on the way to the refineries. In addition, the ships carry other types of oil and each has a different impact if it is spilled.

Washington, Idaho and Oregon all have signed the Northwest Area Plan. The plan outlines policies and procedures for responding to oil spills, including the use of volunteers. She said there is a strong potential for groups such as Beach Watchers to have a role. “The hope is to pre-identify people and get them trained and ready,” she said. But even in the absence of a spill, groups such as the MRC can assist the committee in developing its response plan. The committee goes to local communities and asks for their local science and information about resources that might be at risk. For resources that might be at risk they identify strategies, usually booming strategies that might be implemented right away to mitigate damage from spills. Over time the committee asks the oil companies, with their response contractors, to practice those strategies.

When a spill occurs, the Incident Command System takes effect and makes decisions about how to respond. This is another place where the knowledge and science of local MRSs can make a contribution. Local people have the greatest familiarity with local resources that might be impacted.

In response to a question, Pilkey-Jarvis said both the state and federal governments have standards that have led to the pre-caching of spill-response equipment at locations throughout Puget Sound and the navigable rivers of the state. So in the event of a spill, equipment should be nearby, and certainly is present at the refineries. In addition, the Navy maintains significant caches. The system replies on

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private contractors, but those who have the biggest risk of spills must pay to sustain this system. So the oil companies pay these contractors to be ready. Pilkey-Jarvis said single-hulled tankers are being phased out and the ones that remain will no longer be entering Puget Sound in about a year.

Pilkey-Jarvis and Gough said they would be happy to come back and do a longer presentation to the MRC, including a role-play of a spill scenario. Porter said he will follow-up and schedule them to do that.

NEW AND UNFINISHED BUSINESS

Joint issues between Jefferson and Island MRCs. Jefferson County MRC chair, Michael Adams, outlined some areas where he believes our two groups could collaborate. Adams explained he is a port security consultant and shellfish grower, and works in emergency management in Kitsap County. Issues of potential joint interest include oil-spill response, monitoring of the tidal energy pilot project, research on Olympia oysters, eelgrass no-anchor zones, the Mystery Bay shellfish growing area for which the MRC helped develop the management plan, shoreline armoring and alternative erosion control to improve drift-cell function. In response to a question about Shore Stewards, Pat Pearson reported that about six months ago, Mason and Jefferson counties did a postcard mailing to all shoreline property owners and more-than-doubled their enrollment in Shore Stewards. Jefferds pointed out the Jefferson group might be interested in Island County MRC's phytoremediation project, using poplar and willow trees to biologically treat stormwater and sewer water runoff that would otherwise be dumped into the marine waters of Penn Cove. Porter asked how forage fish research fits into Jefferson's current activity. Adams explained it is unfunded but they wish they had the money to pursue it.

ADJOURNMENT: Because Jefferson MRC members needed to leave for a 6 pm ferry back to Port Townsend, Jefferds declared the meeting adjourned at 5:35 pm.

| MRC Meetings and Events | | |
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| Mar 16 | Tue | 3:30 – 5:30 Business meeting |
| Apr 6 | Tue | 3:30 – 5:30 Educational meeting – MRC–WSU Beach Watchers Eelgrass Team: <i>Results of 2009 Eelgrass Monitoring in Island County</i> |
| Apr 30 | Tue | 3:30 – 5:30 Business meeting |