

Letter 8



Oregon

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Water Resources Department

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TO: Philip Sanchez, Superintendent
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FROM: Reed Marbut, Intergovernmental Coordinator *RM*
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SUBJECT: Wanapa Energy Center, Draft Environmental Impact Statement (DEIS)

The Oregon Water Resources Department (OWRD) submits the following comments concerning the adequacy and accuracy of the Draft Environmental Impact Statement for the Wanapa Energy Center near Hermiston, Oregon.

BACKGROUND

The Wanapa Energy Center (Wanapa) is proposed as a 1200 megawatt (MW) natural gas powered, steam turbine generation facility. Wanapa is to be developed under a joint venture between the Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Diamond Generating Corporation, The City of Hermiston, the Eugene Water and Electric Board and the Port of Umatilla. Wanapa proposes to use a maximum of 23 cfs of water under the Port of Umatilla's Permit No. 49497. (See DEIS page ES-3.)

The actual generating facility will be located on 47-acre parcel of land acquired by the CTUIR and held in trust by the United States. All other components of the development are on private land except the Cold Springs Reservoir which is owned by the US Bureau of Reclamation (USBR). These components include a water pipeline, a natural gas pipeline, wastewater pipeline from the generating facility to Cold Springs Reservoir and a 500-kilovolt electric transmission line to the BPA McNary substation.

The Wanapa Energy Center development proposes to secure its water from the Port of Umatilla under the Port's Permit No. 49497. Permit No. 49497 is a 1979 water right for the use of 155 cubic feet per second (cfs) of water from the Columbia River for municipal use. The point of diversion is just up-stream from the McNary Dam in the NE¼ of the SE¼, Sec. 10, T.5 N., R.28 E. WM. (See OWRD Declaratory Ruling issued March 2, 1994, recorded in Special Orders Vol. 48, at page 118.)

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COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT (DEIS)

Water Supply.

The DEIS identifies two water uses. First and foremost is the steam turbine operation; and second, hydrostatic testing of the various pipelines. The steam turbine water is provided under the Port of Umatilla Permit No. 49497.

8-1 The source of water identified in the DEIS for the hydrostatic testing is “nearby surface waters or available municipal supplies.” (See page 2-14.) The DEIS should identify the specific source of water for the pipeline hydrostatic testing, the timing of the withdrawal for testing, how much water will be required and the rights under which this water will be secured.

Approximately 23 cfs of Columbia River water will be used for Wanapa operation under the Port’s Permit No. 49497. (See page ES-3.) The current maximum rate of withdrawal of water under Permit No. 49497 is 18.54 cfs. Wanapa’s proposed use will represent an increase withdrawal from the Columbia River under Permit No. 49497 from the current 18.54 cfs to 41.54 cfs. It should be noted that the DEIS asserts that the “... committed uses (prior to this proposed project) represent a total of 23.4 cfs from a total water right of 155 cfs.” (See page 3.2-4.). To accommodate this increase withdrawal, the Port’s POD intake is to be modified by addition of a fourth pump to the current platform “and by making minor modifications to the pump manifold if necessary.” “No new construction in the river intake area would be required for the modification.” (See page 2-17.)

8-2 On March 14, 1994, the United States Corps of Engineers issued Permit 93-00941, issued under Section 404 of the Clean Water Act (CWA). We are advised that Permit 93-00941 includes a “reopener” clause. The original §404 permit covered withdrawal of up to 50 cfs, so in theory Wanapa’s withdrawal will not trigger the reopener clause. The increase withdrawal of water from the Columbia River for operation of the Wanapa project brings the Port’s total withdrawal very close to the maximum allowed under the Port’s §404 permit. In fact, the DEIS states: “Based upon existing and future demands, water demand at the Port of Umatilla could increase to 53 cfs....” (See page 6-3.).

Table 1.3-1 at page 1-9 of the DEIS lists both the CWA §404 and the Endangered Species Act (ESA) §7 as applicable to the construction and operation of the proposed Wanapa project. However, other than stating – “[W]ater withdrawal from the Columbia River would occur under an existing water right. This depletion would slightly reduce habitat for fish species (including listed salmon, steelhead and bull trout) in the Columbia River.” – the DEIS does not indicate how these federal laws will apply to the project. (See page ES-5.) It is unclear whether the increase withdrawal of Columbia River water will require review under either the CWA or the ESA and if so how this review will be conducted. The DEIS should be specific on these matters.

8-3 The last paragraph on page 2-11 the developers discuss how wastewater would be discharged into Cold Springs Reservoir via the Feed Canal. By discharging additional water into the Feed Canal at this point the results of the OWRD’s calculations will be skewed for delivery losses of Umatilla River water to the Cold Springs Reservoir. The OWRD figures delivery losses by comparing the

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8-1 The gas pipeline would be tested, about 6 months prior to the first unit start up. The water source would be construction water, which would probably be supplied by the Port. Hydrostatic testing of the pipeline is a one-time test and it would consume no more than approximately 20,000 gallons. If the plant discharge water line is tested at the same time it would use approximately 4,000 gallons. The first 600 MW of the plant would use a total of approximately 70,000 gallons for hydrostatic testing as would the second phase.

Wherever possible, the water is used and re-used several times to minimize water consumption. For large volume testing, the most likely source of water would be purchased from the Regional Water System via Port of Umatilla or other local municipalities under their existing municipal water right. For small volume testing, the project may use potable water from the city (piped to the plant for domestic use) if it is more convenient to access than plant water. Hydrostatic testing would be conducted in the last several months of plant construction when most plant systems and tanks have been completely constructed.

Hydrostatic test water would be discharged to Cold Springs Reservoir under the water quality requirements of the NPDES permit. If permit conditions cannot be met for the hydrostatic test water, it would be trucked off-site by a licensed contractor.

8-2 As stated in the comment, the additional withdrawal by the Wanapa project does not trigger the re-opener clause in the original CWA 404 permit. It was not considered appropriate to solicit special review under the CWA.

A biological assessment is being prepared pursuant to §7 of the ESA. As to the CWA §404, the use of the Port of Umatilla’s water right for withdrawal from the Columbia River would not require review under the Clean Water Act because it is an already permitted activity under an existing Section 404 Permit. (This is similar to the use of the same water rights by the already existing power plants, which began using the Port’s water rights as late as mid-2002.)

8-3 The plant discharge water pipeline would not intersect with the Feed Canal until the final concrete spillway at the bank of the Reservoir. This spillway would be upgraded to allow for the plant discharge water to flow into the Reservoir. As such, it is correct that plant discharge would mix with Feed Canal water at the spillway (unless required otherwise by the ODEQ in the NPDES permit) and only when the Feed Canal is providing water to the reservoir. During summer and early fall (June – October), there is typically no flow in the Feed Canal. There also are other periods when no flow is diverted from the Umatilla River to the Feed Canal to maintain adequate target flows for fish in the river. At these times, only Wanapa project water would be discharged to the reservoir at the spillway.

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8-3 gage station at the upper end of the Feed Canal to the gage station just prior to discharging water into the Reservoir. The wastewater is proposed to be discharged just upstream of the downstream gage station which will appear to reduce the delivery losses of Umatilla River Water. One option would be to require a measuring device to account for this additional wastewater discharging into the Reservoir. This is likely needed in any event so that OWRD can subtract the amount of wastewater discharged into the Reservoir so that it is not calculated into the total volume allowed under the existing water rights.

Again, in the third paragraph on page 3.2-13 there are statements that the plant effluent water will mix with water in the Feed Canal before entering the Cold Springs Reservoir. This would be true at the times the Feed Canal is running water. Because of the Umatilla Basin Project there are times when the target flows for fish are not being met (generally during the fall and spring) and no water is diverted into the Feed Canal from the Umatilla River. Additionally, in a typical year there would be no diversion into the Feed Canal from the Umatilla River from June through October.

Permit No. 49497 Extension Application.

8-4 On September 29, 2003, the Port of Umatilla filed an Application for Extension of Time to complete construction of its water diversion/appropriation works and to accomplish the beneficial use of water to the full extent under Permit No. 49497. This Application is currently pending before the Department.

OAR 690-315-0090(3) states "any water right extended under OAR 690-314-0070 to 690-315-0100 shall be conditioned to provide that diversion of water beyond the maximum rate diverted under the permit or previously extension(s) shall only be authorized upon issuance of a final order approving a Water Management and Conservation Plan...." The Port states in its Extension Application that it "... prepared a water management and conservation plan for our 1997 application, and will be updated in the near future." As noted above, the current maximum rate of diversion of under Permit No. 49497 is 18.54 cfs. In order for the Port to increase its withdrawal beyond the 18.54 cfs it will need to secure approval of a new water management and conservation plan or satisfactorily amend and/or update its 1997 Plan.

The DEIS should address this matter both as to timing of plan development and/or update and the substance of its plan.

Wastewater Discharge to Cold Springs Reservoir.

8-5 "The proposed facility [Wanapa] would generate wastewater that is primarily comprised of cooling tower blowdown. In addition, the plant will generate small quantities of process wastewater, sanitary sewage and storm water. (See page 3.2-12.) The DEIS states that "Columbia River water is considered good quality ..." with "...dissolved solid concentrations approximately 100 milligrams per liter." (See page 3.2-12.) The cooling system "...blowdown would be approximately six times the concentrations in the raw water." (See page 3.2-13.) The plant discharge rates would average 1.8 million gallons per day (2.8 cfs) with a maximum discharge of wastewater of 3.7 cfs.

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Plant discharge water would be measured as it leaves the plant on a continuous basis and this information would be readily made available to the OWRD for calculation of delivery losses in the Feed Canal upon request. The discharge point is downstream of the existing gage station. The gage station is on the flow control gate on the Feed Canal a few hundred feet upstream of the actual canal discharge into Cold Springs Reservoir. With this discharge point, calculation of delivery losses in the canal should not be affected. However, if a measuring device were required by OWRD, it would be provided by the project.

8-4 The Port is anticipating contracting with a consultant in the near future, which would be tasked with completing the Port's Water Management and Conservation Plan. The Port would look for the plan to be completed some time in late 2004 or early 2005.

8-5 Sampling conducted of Cold Springs Reservoir in August 2003 determined that surface water temperatures at that time ranged from 70°F to 77°F. If plant discharge temperatures are 70°F to 75°F in the summer months, it is not anticipated there would be any effect on reservoir temperatures in the summer months. Winter temperatures in the reservoir and the plant discharge water are expected to be the same. However, the project's NPDES permit application would be required to demonstrate the potential effect of plant discharge temperature on reservoir temperature. Since the flow is from the river to the reservoir, no negative effect on temperature in the Umatilla River is anticipated.

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8-5 The first paragraph on page 3.2-13 states that the temperature of the wastewater will be 70 to 75 degrees. This discharge could potentially impact the ongoing state/tribal/federal TMDL effort to improve temperature in the Umatilla River. On page 3.3-27 the DEIS states that no direct impact to the Umatilla River is anticipated.

8-6 Table 1.4-1 on page 1-11 does not identify the OWRD requirement for a permit for the discharge of effluent water into Cold Springs and subsequent use for irrigation purposes. Two options could be cited. First, if the requirements specified in ORS 537.132 for use of reclaimed water are met, the developers could file a registration statement for use of reclaimed water for irrigation without needing to file a water right application. (For the record, a State NPDES permit is required for use of reclaimed water as an exemption.) The second option is to file a reservoir application to impound water and a secondary application to divert out of storage for irrigation.

8-7 It should be noted that the DEIS alleges that, "since the proposed plant is on tribal trust land," the US Environmental Protection Agency (USEPA) "would have primary authority for review and approval" of the NPDES permit." Wastewater from the Wanapa project will be conveyed to Cold Springs Reservoir via a nine-mile pipeline. Cold Springs Reservoir has a total active capacity of 44,600 acre-feet (af), a normal storage capacity of 38,000 af for irrigation. (See page 3.2-3.) Irrigation use of Cold Springs water is primarily in the Hermiston Irrigation District. Return flows are to the Umatilla River near Hermiston. (See page 3.2-3.) At the maximum 3.7 wastewater discharge, the contribution to Cold Springs represents 2678.8 af per year.

Notwithstanding this assertion, it would be in the State's interest to have a more comprehensive evaluation of the respective responsibilities with respect to discharge of wastewater to irrigated land in Oregon operating under an Oregon water right. In sum, the DEIS should more clearly describe the long-term water quality effects on all receiving entities, Cold Springs Reservoir, Hermiston Irrigation District and the Umatilla River.

8-8 The DEIS states that the USBR "...must decide whether to accept the [wastewater]." The DEIS should specify how the USBR will evaluate the proposed discharge. In addition, the DEIS should contain a more thorough analysis of the effect of the discharge to the Cold Springs Reservoir on the existing water rights associated with the Reservoir and irrigation use of the stored water.

Energy Facility Siting Council (EFSC) Review.

8-9 The DEIS contends that, since "... the proposed electrical generation facility (to be located on tribal land) [it] is exempt from EFSC regulations because of tribal status as a sovereign entity." However, "[A]ncillary facilities that cross public and private lands (natural gas supply/wastewater discharge pipelines) are subject to EFSC regulations, and would require a separate state-administered process." (See pages 1-11 and 12.)

The DEIS should be more specific as to how EFSC regulations and approval apply and how the various state agencies will participate in the EFSC review.

8-6 The Wanapa project would comply with OWRD requirements for a permit to discharge into Cold Springs Reservoir and subsequent use of the water for irrigation purposes. The project would file an application to impound water and an application to divert water from storage for irrigation.

8-7 Oregon DEQ, as noted in response to Comment 5-8, would permit the discharge to Cold Springs Reservoir. The agency would conduct the primary review and approval of the NPDES permit application. The permit application would analyze the impacts of the plant discharge on the water quality of Cold Springs Reservoir and associated uses such as agricultural applications.

8-8 The Reclamation would evaluate the proposed discharge and all required and supplemental data for their evaluation would be provided.

8-9 See response to Comment 5-7.¹

¹Oregon EFSC procedures and processes are in accordance with requirements of the Oregon statutes which can be found in (www.energy.state.or.us/siting) under the heading "Energy Facility Siting (the sitting process, standards and laws)". For the application of EFSC regulation refer to ORS 469,300(11)(E)(ii) at the same web site.