



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

September 19, 2005

PUD No. 1 of Clallam County
Attn: Michael Kitz
P.O. Box 1090
Port Angeles, WA 98362-9001

Dear Mr. Kitz:

**ORDER DENYING APPLICATION G2-30277 AND APPROVING
DROUGHT APPLICATIONS G2-30278 and G2-30279**

PUD No. 1 of Clallam County applied for three Emergency Drought Permits on September 6, 2005 to provide alternative sources of supply for its Fairview Water System.

In accordance with the provisions of RCW 43.83B.405, on March 10, 2005, the Department of Ecology determined that the State of Washington was in drought conditions. The Department of Ecology may, during periods of drought, authorize emergency withdrawal of public surface and ground waters, including dead storage within reservoirs, on a temporary basis and authorize associated physical works that may be either temporary or permanent.

The termination date for the authority to make such an emergency withdrawal may not be later than the termination date of the order issued under RCW 43.83B.405 under which the power to authorize the withdrawal is established. As provided for in Ecology's drought declaration, that termination date is December 31, 2005.

Application No. G2-30277 is for a right to divert additional waters from the Elwha River via the City of Port Angeles Ranney Well and via a connection with the City of Port Angeles water system. This application is **DENIED**.

Application Nos. G2-20278 & G2-30279 are for the use of a new well and an existing nearby well. These applications are **APPROVED**, subject to the terms of this order.

BACKGROUND

PUD No. 1 of Clallam County manages the Fairview Water System located east of the City of Port Angeles in Clallam County, Washington. This system provides water service to 1406 residential connections and 37 commercial connections.

The usual source of water for the Fairview Water System is a surface water diversion located at River Mile 7.0 on Morse Creek, a 16.3 mile-long stream which originates in the higher



elevations of Olympic National Park and reaches sea level where it discharges to the Strait of Juan de Fuca. It provides habitat for a diversity of salmon species, including spring/summer Chinook, coho, chum and pink salmon, summer and winter steelhead, and sea run cutthroat trout (WRIA 18 Watershed Plan and WDFW). A barrier to upstream migration consisting of a natural falls is located at river mile 4.9.

Clallam County PUD has a Surface Water Right Certificate No. S2-00076, which authorizes a maximum diversion of 1.5 cfs up to an annual quantity of 379 acre-feet per year. The certificate is conditioned by the following provision:

All diversion shall cease when the flow of Morse Creek falls below 25 cubic feet per second as measured at the United States Geological Survey gaging station located in the SW¼ NE1/4 Section 5, T. 29N., R. 5.W.W.M. This flow has been recommended by the Departments of Fisheries and Wildlife. As such time as flows are established on this stream, in accordance with Chapter 90.22 RCW or Chapter 90.54. RCW, this permit shall be conditioned to the extent of the new setting, provided that, under no conditions shall the permittee be subjected to a more restrictive low flow requirement.

Morse Creek flows have been significantly lower than average this year. The PUD went to Stage One Conservation on April 5, 2005 and Stage 3 on September 12. Currently, the PUD is using about 400,000 gallons per day from Morse Creek.

CRITERIA FOR APPROVAL OF A DROUGHT APPLICATION

In addition to compliance with those statutes that govern all water right changes and transfers (RCW 90.03.380, 90.03.390, and 90.44.100), certain criteria must be met before Ecology may issue a drought permit. Ecology has adopted rules to implement these criteria, which are found at (Chapter 173-166 WAC). First, some initial threshold questions must be answered in the affirmative.

- 1) Ecology must determine whether the water user is receiving, or is projected to receive, less than seventy-five percent of normal water supply, as the result of natural drought conditions.
- 2) Ecology must determine whether the applicant is experiencing, or is expected to experience, undue hardship as a result.

AVAILABILITY OF WATER SUPPLY

To determine whether the PUD is receiving or is expected to receive less than 75 percent of its normal water supply, I have considered the following factors: precipitation, availability of water in Morse Creek, regional snow pack conditions, the effect of instream flow provision on the PUD's water right and whether the PUD has other water sources available to it.

Precipitation and Snowpack

According to the Western Region Climate Center, the Olympic Peninsula region has received above 80 percent of its normal precipitation so far for this water year (Oct 1, 2004 – Sept 13, 2005; <http://www.wrcc.dri.edu/cacanom/images/ppctwy.gif>; accessed on September 15, 2005). Average total precipitation for the January – August for the Port Angeles is 13.47 inches (<http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?wapang>). Actual precipitation this year totals 10.74 inches, or about 77 percent of average.

(<http://www.wunderground.com/weatherstation/WXDailyHistory.asp?ID=KWAPORTA3&day=16&year=2005&month=9&graphspan=year>). However, spring and summer flows in Morse Creek are substantially supported by the melting of snowpack in the upper watershed. Snowpack this year was less than normal and dissipated earlier than usual. The graphic below illustrates snowpack conditions, as measured in snow water equivalent (SWE), for water year 2005 vs. water year 2004 for the Waterhole SNOTEL site, located near the upper reaches of the Morse Creek watershed (water year 2005 is the lower line):

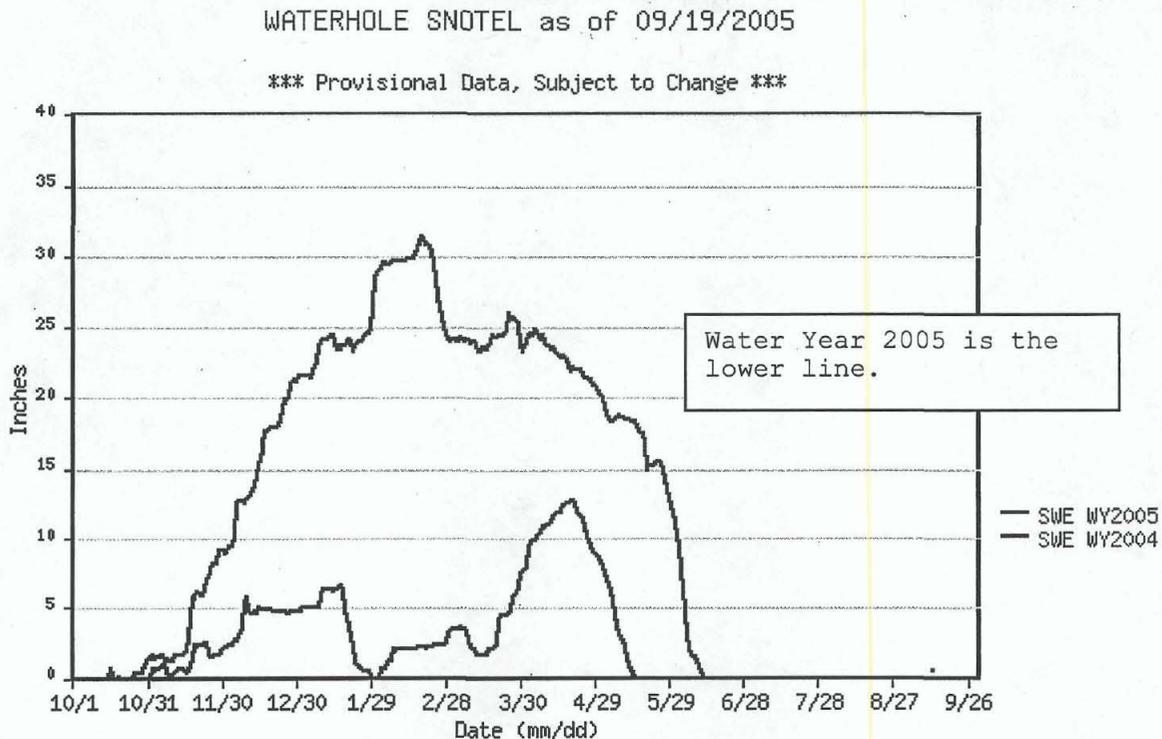


Figure 1: Snow water equivalent for the SNOTEL Waterhole site (Source: <http://www.wcc.nrcs.usda.gov/cgibin/wygraph-swe-only.pl?stationidname=23b17s-WATERHOLE&state=WA>; accessed on September 19, 2005)

Morse Creek Flows

The USGS gaging station referenced in the PUD's water right has been discontinued; however, the Department of Ecology now operates two gaging stations on Morse Creek:

- 18C070 Morse Cr. @ Four Seasons Ranch T, Located at River Mile 0.5
- 18C150 Morse Creek blw Aqueduct T, Located at River Mile 6.5

Because both gages are located downstream of the PUD's diversion, they reflect the diminishment caused by the PUD's water withdrawal from the Creek as well as any other withdrawals. Daily mean discharge indicates that flows in Morse Creek have been dropping steadily during the summer, as one would expect during Washington's dry season. Flows measured at the Upper Creek dropped below 25 cfs on August 25th and have exceeded 25 cfs on only 5 days since that date. Flows at the lower gage dropped below 25 cfs on August 9th and also have stayed below 25 cfs for most of the time since then. Flows as measured at the Four Seasons Ranch have been somewhat lower than as measured upstream. This probably reflects the effect of additional diversions as the stream continues downstream, though it also is possible that some surface water is being lost to groundwater.

Mean monthly flows for Morse Creek

Month	Historical Mean	Mean Monthly Flows Year 2005	Percent of Average
Jan	214.2	105	49%
Feb	153.6	53.9	35%
Mar	144.2	68.9	48%
Apr	102.6	101	98%
May	174.7	119	68%
June	199.4	80.4	40%
July	115.4	47	41%
Aug	62.1	28.5	46%
Sept	42.2	23.9 (Sept 1-14)	57%
Oct	64.3		
Nov	120.9		
Dec	201.0		

Data Sources: Historic Data, Pa. 2.6.7, WRIA 18 Watershed Plan; Year 2005 Data, Department of Ecology website: <https://fortress.wa.gov/ecy/wrx/wrx/flows/station.asp?sta=18C150>, accessed on Sept 14, 2005)

As is illustrated by the table, flows in Morse Creek are currently at about 57% of the monthly average for September, but enough water is still physically available to meet the PUD's water supply needs.

Instream Flow Condition

However, the status of the PUD's water supply is not only a question of physical availability but also of legal availability. The PUD's water right flow condition specifies that "all diversion shall cease" when flows in Morse Creek drop below 25 cfs. This condition, if enforced, would render 100 percent of Morse Creek unavailable to the PUD so long as flows are less than 25 cfs.

Other water sources

The PUD does have other water sources available that are used to provide backup supply in the case of turbidity problems, but they are not capable of fully substituting for the Morse Creek supply due to a combination of factors. According to the PUD, the Bluffs well is capable of a maximum pumping rate of 300 gpm, but can only be pumped at 150 gpm for a few weeks without inducing seawater intrusion. Moreover, it is capable of pumping water to only two of

the system's six pressure zones. The Township Line Road well can be pumped as a rate of 25 gallons per minute. It has a temporary permit that expires on December 5, 2005. The PUD's average demand is about 250 gpm. The PUD also owns has two large storage tanks (200,000 gallons and 300,000 gallons) that provide enough storage to satisfy a little more than one day's water demand.

Finding with respect to availability of water supply

For the PUD to be eligible for a drought permit, it has to be receiving or be projected to receive less than 75 percent of its normal water supply as a result of natural drought conditions. The fact that flows are less than 25 cfs – or about 57 % of average monthly flows -- indicates that natural drought conditions are present. Because the PUD does not have authorization to divert Morse Creek waters when the flow is less than 25 cfs, the PUD is at risk of losing access to its major source of water. This is an infrequent occurrence during the low flow months, but the frequency could become greater if climatic changes result in chronically lower snowpack conditions.

Ecology has discretion whether to enforce the instream flow provision, but thus far has only requested the PUD to go to Stage 3 Conservation. Ecology is working with the PUD to ensure that its customers are under a mandatory Water Conservation regime (Stage 3) – which allows the indoor use of water only -- and expects to continue to explore options for other water supplies with the PUD.

UNDUE HARDSHIP

The PUD informed Ecology that it is not aware of any customers experiencing undue hardship as a consequence of going to indoor water use only. However, because the PUD is at risk of losing access to its primary water supply for the Fairview System, there is a risk of undue hardship in the future, especially considering the frequency of time that Morse Creek is expected to drop below 25 cfs under natural conditions. The PUD lacks sufficient alternative sources to substitute for the Morse Creek supply.

In sum, the PUD meets the thresholds of eligibility for an emergency drought permit because, due to the fact that it lacks the right to divert water from Morse Creek when flows are less than 25 cfs, it is vulnerable to receiving less than 75 percent of its normal water supply, which would cause undue hardship.

APPLICATIONS FOR EMERGENCY DROUGHT RELIEF

Application No. G2-30277

Application No. G2-30277 is for the purpose of withdrawing 400 gallons per minute, up to a total of 106 acre feet from the Elwha River for the period of 9/1/05 to 11/1/05. This diversion would be accomplished using the City of Port Angeles's existing Ranney Well at River Mile 2.8

The PUD currently has an agreement for the purchase of water from the City of Port Angeles for the Gales Addition Water System. The PUD has informed Ecology that it would be unable to make use of a permit issued pursuant to this application in the timeframe of September to November 2005 because it would need to obtain permission from the City of Port Angeles, construct distribution pipelines and obtain necessary easements or acquire property. However, any infrastructure constructed pursuant to this permit would be in place for subsequent drought emergencies.

The City of Port Angeles's Ranney Well is directly under the influence of surface water and essentially diverts surface water from the Elwha River using perforated pipes that penetrate the river bed. Like Morse Creek, the Elwha River also is experiencing lower than normal flows. The current flow level is 275 cfs, which is less than the 90 percent exceedance level – and is measured upstream of the City's water intake facility.

The City of Port Angeles is currently at a Stage 2 water conservation level (voluntary) due to low flows in the Elwha (<https://www.ci.port-angeles.wa.us/pwConserv.htm>); accessed on Sept. 15, 2005). The City, which holds substantial water rights (totaling 200 cfs) for taking water from the Elwha, has been working with the Lower Elwha Tribe and other water purveyors to reach an agreement on flow management. The City went to Stage 2 conservation in August when flows dropped below 400 cfs (Source: Steve Speer, City of Port Angeles).

The average daily withdrawal for the City's Ranney Well for the past 24 days, as of September 15, 2005, has been 3.35 million gallons per day, which equates to about 5.18 cfs flowing over a 24 hour period (Source: Annette Owens, City of Port Angeles). The City also has a surface water intake a few hundred feet upstream used for industrial and manufacturing water supply that is taking about 13-14 cfs (Source: Steve Speer, City of Port Angeles).

RCW 43.83B.410(1)(b) provides that in authorizing a new emergency drought withdrawal,

The withdrawal must not reduce flows or levels below essential minimums necessary to assure the maintenance of fisheries requirements and to protect federal and state interests including, but not limited to, power generation, navigation, water quality, and existing water rights.

Because the Elwha River already is experiencing drought-level conditions, I do not have assurance that authorizing additional withdrawals therefrom can occur without reducing flows below essential minimums. This determination could change if a formal flow management regime is developed for the Elwha River. We ask to be kept notified of the progress of discussions between the Lower Elwha Tribe and City of Port Angeles and of any formal agreement that is achieved.

Accordingly, this application is **DENIED**.

Application No. G2-30278

Application No. G2-30278 seeks authorization for using an existing well located in the NW1/4 SW1/4 Sec. 4, T29N, Range 5W. This well was originally drilled for a proposed development located on Maletti Hill off Deer Park Road pursuant to Preliminary Permit No. G2-29322 and is located near Frog Creek, a tributary to Morse Creek. The preliminary permit authorized the construction of the well and a pump test, but not permanent beneficial use.

The PUD would have to install pipelines to convey pumped water to its own system. These infrastructure improvements can not be completed before the termination of the current drought emergency.

A formal hydrogeologic analysis has not been conducted. The decision timeline afforded by the emergency drought application statute (15 days) does not allow for a substantive review of the extent to which this well is in continuity with Frog Creek and Morse Creek. We assume that there is some connection and that the well would capture some water that otherwise would have discharged to the two creeks. It is likely, however, that water pumped from the well would have less impact on the creek than water directly diverted from the creek and, to the extent it does, it would be preferable to use the well in lieu of the creek, though it would not be as desirable as using a source that had no impact whatsoever on Morse Creek during times of low flow.

Because the well would provide a less consumptive (to Morse Creek) alternative source, it makes sense to have it available as a backup supply. But because it would likely still have an impact on Morse Creek, it is essential that it only be used during drought emergencies and in conjunction with other actions undertaken by the PUD to avoid actually increasing the amount diverted - -and only with Department of Ecology approval. The Department also must be satisfied that no impairment of other rights will result from the use of the well.

Application No. G2-30278 is **APPROVED**, subject to the conditions below:

This authorization is for an existing well located within the NW1/4 SW1/4 Sec. 4, T29N, Range 5 W.M.W.

This authorization is contingent on the Fairview System operating at a Stage 3 or Stage 4 Level of conservation, as described in the Water Shortage Response Plan, adopted September 17, 2001 by Clallam County, and contained within the PUD's 2003 Water System Plan.

The instantaneous quantity of water to be withdrawn under this authorization is 70 gpm

The maximum annual quantity of water to be withdrawn under this authorization is 20 acre-feet, as needed, for continuous municipal supply, indoor use only.

The place of use of this water right is the Fairview Water System, so long as the PUD No.

1 of Clallam County is and remains in compliance with the criteria in RCW 90.03.386(2).

The PUD shall provide a hydrogeologic assessment of the potential for impairment of other water rights in the Morse Creek watershed at last 1 month prior to the use of the well. The hydrogeologic assessment shall also determine if the new well taps the same body of public groundwater as what discharges to Morse Creek, [required by RCW 90.44.100(2)(a)].

A suitable flow meter approved by the Department of Ecology shall be installed and maintained in accordance with Chapter 173-173 WAC. (Installation, operation and maintenance requirements attached hereto).

This withdrawal may be further regulated to maintain essential minimum flows in Morse Creek

The PUD shall provide pump test results to the Department. If and when water is being withdrawn, daily readings of the flow meter shall be recorded and maintained by the permittee. These readings shall be documented by time, date, withdrawal rate, and the person conducting the measurements. Copies of these records shall be submitted to the Department of Ecology by January 15, 2006.

Surface diversions from Morse Creek shall be reduced by a commensurate amount whenever the well is being pumped.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

Withdrawal of water under this authorization may be limited or otherwise regulated in favor of senior rights.

This drought emergency authorization expires on December 31, 2005.

Application No. G2-30279

Application No. G2-30279 seeks authorization for pumping up to 100 gallons per minute and 30 acre-feet for the period of September 1, 2005 to December 1, 2005 from a proposed well to be located adjacent to the LUD No. 1 treatment plant in the SW ¼ NE 1/4, Sec. 5, T29N, R 5W.M.W. This location is within a few hundred feet of Morse Creek.

The PUD would have to drill and install a well, and construct pipelines necessary to convey pumped water to its own system. The PUD says the new well would not be operational prior to the termination of the current drought emergency.

There is no guarantee that this location would produce water in the desired quantity or acceptable quality. If the location is as productive as hoped, however, a well drilled here likely would intercept water that would have discharged to Morse Creek. Consequently, the effect of changing from surface water to a groundwater withdrawal would be to lessen but not eliminate the diminishment of flows on Morse Creek. To the extent the overall depletion of instream flow decreases, however, a well would provide some benefit and would improve the reliability of the PUD's water supply.

As with the other groundwater application, because the well would likely provide a less consumptive (to Morse Creek) alternative source, it makes sense to have it available as a backup supply. But because it would likely still have an impact on Morse Creek, it is essential that it only be used during drought emergencies and in conjunction with other actions undertaken by the PUD to avoid enlarging the amount of water diverted - -and only with Department of Ecology approval.

Application G2-30279 is **APPROVED**, subject to the following conditions:

This authorization is contingent on the Fairview System operating at a Stage 3 or Stage 4 Level of conservation, as described in the Water Shortage Response Plan, adopted September 17, 2001 by Clallam County, and contained within the PUD's 2003 Water System Plan.

This authorization is for an existing well located within the SW ¼ NE 1/4, Sec. 5, T29N, R 5W.M.W.

The instantaneous quantity of water to be withdrawn under this authorization is 100 gpm

The annual quantity of water to be withdrawn under this authorization is 30 acre-feet for continuous municipal supply, indoor use only.

The place of use of this water right is the Fairview Water System, so long as the PUD No. 1 of Clallam County is and remains in compliance with the criteria in RCW 90.03.386(2).

The PUD shall provide a hydrogeologic assessment of the potential for impairment of other water rights in the Morse Creek watershed at last 1 month prior to the anticipated use of the well. The hydrogeologic assessment shall also determine if the new well taps the same body of public groundwater as what discharges to Morse Creek, [required by RCW 90.44.100(2)(a)].

A suitable flow meter approved by the Department of Ecology shall be installed and maintained in accordance with Chapter 173-173 WAC. (Installation, operation and maintenance requirements attached hereto).

This withdrawal may be further regulated to maintain essential minimum flows in Morse Creek.

The PUD shall provide pump test results to the Department. If and when water is being withdrawn, daily readings of the flow meter shall be recorded and maintained by the permittee. These readings shall be documented by time, date, withdrawal rate, and the person conducting the measurements. Copies of these records shall be submitted to the Department of Ecology by January 15, 2006.

Diversions from Morse Creek shall be reduced by a commensurate amount whenever the well is being pumped.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

Withdrawal of water under this authorization may be limited or otherwise regulated in favor of senior rights.

This drought emergency authorization expires on December 31, 2005.

THESE AUTHORIZATIONS SHALL IN NO MANNER BE CONSTRUED TO GUARANTEE OR IMPLY THAT A FINAL (REGULAR) PERMIT WILL ISSUE FOR THE FUTURE USE OF THE WATER USE HEREIN AUTHORIZED.

You have the right to appeal these decisions to the Pollution Control Hearings Board. Pursuant to Chapter 43.21B RCW, your appeal must be filed with the Pollution Control Hearings Board, and served on the Department of Ecology, within thirty (30) days of the date of your receipt of this document.

To appeal these decisions, your notice of appeal must contain a copy of the Ecology decision(s) you are appealing.

Your appeal must be filed with:

The Pollution Control Hearings Board
4224 - 6th Avenue SE Rowe Six Bldg 2
PO Box 40903
Lacey WA 98504-0903

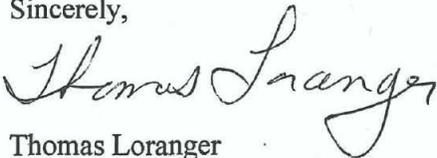
Your appeal must also be served on:

The Department of Ecology
Appeals Coordinator
PO Box 47608
Olympia WA 98504-7608

In addition, please send a copy of your appeal to:

Thomas Loranger, Section Manager
Water Resources Program
Southwest Region Office
P.O. Box 47775
Olympia, WA 98504-7775

Sincerely,



Thomas Loranger
Water Resources Section Manager
Southwest Regional Office

TL:JM:th

Enclosures: Flow Meter Requirements
Your Right To Be Heard

cc: Curt Hart, Water Resources Program, HQ