

BEFORE THE WASHINGTON
UTILITIES AND TRANSPORTATION COMMISSION

In the Matter of

OLYMPIC WATER AND SEWER, INC.

DOCKET UW-110436

DECLARATION OF JEFFREY HANSEN,
P.E.

I, JEFFREY HANSEN, hereby declare and state as follows:

1. I am over the age of 18 and otherwise competent to testify herein and I have personal knowledge of the facts stated herein.
2. I am a Professional Engineer licensed in Washington State and a Project Manager with HDR Engineering, Inc. (HDR) in Olympia, Washington. A copy of my CV is attached.
3. I served as HDR's Project Manager overseeing the development of the Olympic Water and Sewer, Inc. (OWSI) Water System Plan Update (dated July 23, 2007), approved by the Washington State Department of Health. I am currently serving the same function in the development of OWSI's 2014 Water System Plan Update. Over the past 10 years, I have assisted OWSI on other engineering, planning, and design efforts related to OWSI's water system.
4. OWSI provides water service to the Port Ludlow Master Planned Resort (MPR) in unincorporated Jefferson County. OWSI's retail water service area is coincident with the Port

Ludlow MPR boundary, as defined in the Jefferson County Comprehensive Plan. The service area is comprised of two distinct service zones. Service Zone A refers to the developed area north of Port Ludlow Bay, and Service Zone B refers generally to the area south of the bay. Service Zone A receives its water supply from three groundwater wells having a present combined pumping capacity of approximately 310 gallons per minute (gpm). Water is conveyed to two pressure zones within Service Zone A. Service Zone B receives its water supply from two groundwater wells having a present combined pumping capacity of approximately 475 gpm. Water is conveyed to eight pressure zones within Service Zone B.

5. OWSI's Washington State Department of Ecology (Ecology) issued water rights authorize an instantaneous rate of 410 gallons per minute (gpm) and an annual withdrawal of 330 acre-feet per year (afy) for the three Service Zone A wells (i.e., Wells 2, 3, and 4N). OWSI's water rights for the Service Zone B wells (i.e., Wells 14 and 16, and emergency Well 13) authorize an instantaneous rate of 575 gpm and an annual withdrawal of 125 afy (with an additional 206 afy available in supplemental rights). However, the water rights of both service zones are connected, in that the total annual amount withdrawn from all OWSI wells must not exceed 555 afy. Therefore, over a 12-month period, if the Service Zone B wells withdraw up to their maximum allowable 331 afy (i.e., 125+206), the Service Zone A wells are only able to withdraw up to 224 afy (i.e., 555-331).

6. Well 2, at its current pumping capacity of approximately 120 gpm, represents a primary source of supply to Service Zone A. During the period 2007-2012, this well provided one-third of the water utilized in this service zone. Its contribution represented over 40% of water used in this service zone in 2007 and 2011.

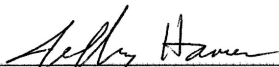
7. If Well 2 is taken out of production, OWSI would not be able to meet its six-year projected water supply needs (i.e., water demands forecast for 2020) in Service Zone A.

8. At OWSI's request, HDR previously reviewed the feasibility of piping and moving water from the Service Zone B wells to serve Service Zone A. To implement this, OWSI would need to install additional booster pumping capabilities with redundancy and/or auxiliary power, in order to convey water from the lower elevations at the northern end of Service Zone B into the higher elevations of Service Zone A. This would in essence represent a "double pumping" of water from the Service Zone B wells in order to make routine use of this water in Service Zone A. This would entail additional ongoing operational and maintenance costs, along with the initial capital costs associated with such facilities. HDR also advised OWSI that at some point in the future the existing 8-inch mainline in Paradise Bay Road would likely become limiting in its ability to convey water from the South to the North.

9. OWSI's current water rights would also not support the increased withdrawals that would be necessary to support long-term supply to Service Zone A from the Service Zone B wells. As part of the 2014 Water System Plan Update, HDR compared OWSI's Service Zone B water rights with current and projected 20-year water needs. At the 20-year planning horizon, it is projected that OWSI will have water rights in excess of Service Zone B demands of only 85 gpm (instantaneous) and 16.4 afy (annual). On an instantaneous basis, the 85 gpm of excess water rights in the future is less than the current pumping capacity of Well 2 (120 gpm). As demonstrated above in Item 7, the loss of Well 2's source capacity leads to a deficiency in capacity in Service Zone A by 2020. Such a deficiency cannot be resolved by the excess existing water rights in the Service Zone B wells. As such, additional water rights would be required to support the long-term, permanent use of Service Zone B wells to replace the source capacity of Well 2. Such additional rights would not be permitted without application to and approval from Ecology.

I declare under penalty of perjury under the laws of the State of Washington that the foregoing is true and correct.

DATED this 16th day of May, 2014, at Lakewood, Washington.



JEFFREY HANSEN, P.E.

CV – Jeff Hansen, P.E.



Jeff Hansen, P.E.

Project Manager

Education

Master of Science, Civil Engineering,
University of Washington, 1999

Bachelor of Science, Civil Engineering,
University of Missouri Rolla, 1998

Professional Registrations

Professional Engineer, Washington,
United States, No. 39861 Issued:
06/10/2003, Expires: 01/20/2016

Professional Affiliations

American Water Works Association,
Member

Pacific Northwest Clean Water
Association (PNCWA), Water for
Humanity Committee

Water Environment Federation, Member

HDR Tenure

14 Years

Industry Tenure

15 Years

Professional Experience

Jeff is a Civil Engineer with HDR. His principal working areas include water and wastewater comprehensive planning, regional water resources planning, water and wastewater system analysis and design, reclaimed water planning, hydraulic modeling, and watershed assessment. He has experience in all disciplines related to water and wastewater comprehensive planning, including water demand and wastewater flow forecasting, water and sewer system modeling, facility assessments, water quality analyses, conservation planning, service area policy development, O&M program optimization, capital improvement program development, and financial planning.

Jeff has served as the project manager or lead engineer on numerous water and wastewater system planning and design efforts over the course of his 15 year career in the Pacific Northwest.

Below is a list of the recent water and wastewater plans Jeff has had a key role in developing since 2008.

Utility	Date Plan Completed	Jeff's Role
Water Comprehensive Plans		
City of Olympia	2014*, 2009	Lead Engineer
Silverdale Water District	2014*	Project Manager
Olympic Water and Sewer, Inc.	2014*	Project Manager
West Sound Utility District	2013	Project Manager
City of Hoquiam	2013	QC Reviewer
City of Aberdeen	2013	QC Reviewer
City of Centralia	2012	Project Manager
City of Chehalis	2012	Project Manager
City of Moscow, ID	2012	Project Manager
Sammamish Plateau Water & Sewer District	2011	Project Manager
City of Redmond	2011	Lead Engineer
City of Tumwater	2011	Lead Engineer
City of Cheney	2011	Project Manager
City of Pullman	2009	QC Reviewer
Alderwood Water & Wastewater District	2009	Lead Engineer
Wastewater Comprehensive Plans		
Spokane County	2014*	Project Manager
City of Hoquiam	2009	QC Reviewer
City of Pullman	2009	QC Reviewer
City of Gig Harbor	2009	QC Reviewer

*Denotes plan is under development; completion anticipated later in 2014.