

STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION

TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)

Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

PRIORITY DATE May 20, 1991	APPLICATION NUMBER G2-28150	PERMIT NUMBER	CERTIFICATE NUMBER
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NAME
David L. Berg, Jurgen H. Huck, Cris J. Boehm

ADDRESS (STREET) (CITY) (STATE) (ZIP CODE)
Allenmore Medical Center, South 19th & Union Street B-5006 Tacoma Washington 98405-1177

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
A well

TRIBUTARY OF (IF SURFACE WATERS):

MAXIMUM CUBIC FEET PER SECOND	MAXIMUM GALLONS PER MINUTE 120	MAXIMUM ACRE-FEET PER YEAR 25.5
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QUANTITY, TYPE OF USE, PERIOD OF USE
25.5 acre-feet per year Multiple domestic supply Year-round, as needed

LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL
1100 feet north and 850 feet east of the southwest corner of Section 23.

LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SW $\frac{1}{4}$ SW $\frac{1}{4}$	SECTION 23	TOWNSHIP N. 19	RANGE, (E. OR W.) W.M. 1W	W.R.I.A. 13	COUNTY Thurston
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RECORDED PLATTED PROPERTY

LOT	BLOCK	OF (GIVE NAME OF PLAT OR ADDITION)
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LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Southeast quarter of the southwest quarter of Section 23, T. 19 N., R. 1 W.W.M., ALSO north half of the southwest quarter of the southwest quarter, Section 23, T. 19 N., R. 1 W.W.M., Thurston County, Washington.

DESCRIPTION OF PROPOSED WORKS

Proposed 8" x 130' drilled well.

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:

November 1, 1993

COMPLETE PROJECT BY THIS DATE:

November 1, 1994

WATER PUT TO FULL USE BY THIS DATE:

November 1, 1995

REPORT

BACKGROUND:

Under the provisions of Chapters 90.03 and 90.44 Revised Code of Washington (RCW), David L. Berg, Jurgen H. Huck and Cris J. Boehm of Tacoma, Washington filed an application to withdrawal public ground water from a well. The amount requested is 120 gallons per minute for multiple domestic supply. The application was accepted for processing, assigned Application No. G2-28150 and given a priority date of May 20, 1991.

Legal notice of the applicant's proposed withdrawal was duly published in The Olympian of Olympia, Washington on June 12 and 19, 1991. No protests were received as a result of the public notice.

I recommend issuance of a permit based on the following report.

INVESTIGATIONS:

On July 22, 1992, I conducted a field investigation of the proposed project site known as Nisqually Highlands. The applicant's were not present during the site investigation. David Berg was contacted by telephone for additional information.

Other investigations included a review of area water well reports, existing recorded water rights, registered water right claims, and an evaluation of information submitted with the application.

Location and Description of Site

This proposed development is located in rural Olympia off of Marvin Road and Hill Road near Tolmie State Park. Surrounding land use in this area is single family homes, small multiple domestic water systems and recreation. The subdivision, to be named "Nisqually Highlands" is 55 acres in size and zoned one dwelling unit per five acres.

The well for this planned development has not been constructed, but the applicants do have county well site approval. No other development of this project has been started. The applicants are planning a three year phasing of this project, and expect 17 homes a year from 1993 through 1995 for a total build out of 51 homes.

Proposed System Description

Well Depth: 130 feet
Casing Diameter: 8 inch
Anticipated Yield: 120 gpm

Aquifer Characteristics

The anticipated depth of this well is 130 feet. Records show that the water bearing formation at this depth consists of loose sand and gravel. Overlying layers are composed of clay and compact sand and gravel. Generally this ground water table is adequate for domestic and small irrigation. Most area wells yield from 10 to 50 gallons per minute.

The proposed well and project site are located within 3,000 feet of Nisqually Reach, at an elevation of approximately 140 feet. This well will be completed at or near sea level and withdrawals may potentially contribute to seawater intrusion. In order to protect this well and those located seaward, chloride monitoring will be required to detect intrusion.

Effect on Existing Rights

The following groundwater records are on file with the Department of Ecology within a half mile of the subject proposed well:

- Five groundwater right certificates authorize a combined withdrawal of 327 gpm and an annual allotment of 55.86 acre-feet.
- Twenty three well reports and numerous groundwater right claims are on file. These records show that area wells range in depth from 44 to 383 feet below ground surface. Most wells are completed in water bearing sand and gravel formations. About one third of these wells appear to be completed in the same water bearing zone as the applicant's proposed well depth.

It is unlikely that withdrawals from the subject proposed well will adversely interfere with the production of neighboring wells. However, withdrawals from this well may need to be regulated in the future if senior water rights are impaired.

Water Requirements

Water requirements for multiple domestic supply should not exceed a daily average of 450 gallons per day per service. For the planned 51 homes this amounts to 25.5 acre-feet per year.

CONCLUSIONS:

In accordance with Chapters 90.03 and 90.44 RCW, I find there is water available for appropriation from the source in question, that the appropriation as recommended is a beneficial use, and should not impair existing rights or be detrimental to public welfare.

RECOMMENDATIONS:

I recommend approval of this application and issuance of a permit to allow appropriation of 120 gallons per minute, 25.5 acre-feet per year from a well for multiple domestic supply. The total annual withdrawal shall not exceed 25.5 acre-feet per year.

Approval shall be subject to existing rights and the following provision:

"The instantaneous withdrawal shall be reduced accordingly to reflect the actual capacity of the well pump, prior to issuance of the formal water right certificate."

The water appropriated under this application will be used for public water supply. The State Board of Health rules require public water supply owners to obtain written approval from the Office of Water Supply, Department of Health, Mail Stop LD-11, Building 3, Olympia, Washington 98504, prior to any new construction or alterations of a public water supply system.

Installation and maintenance of an access port as described in WAC 173-160-355 is required. An air line and gauge may be installed in addition to the access port.

All water wells constructed within the State shall meet the minimum standards for well construction and maintenance as provided under RCW 18.104, Washington Water Well Construction Act of 1972, and Chapter 173-160 WAC, Minimum Standards for Construction and Maintenance of Wells.

Due to the potential for seawater intrusion, the applicant is urged to locate the well(s) as far inland as possible.

In conjunction with the State Department of Health bacteriological sampling the applicant shall test water quality for chloride concentration once every three months. Water samples shall be gathered and analyzed in accordance with Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985, or equivalent methods. Chloride concentration analysis shall be performed by a laboratory accredited by the Department of Ecology for the tests to be conducted. Accreditation information may be obtained for Ecology's quality Assurance Program at (206) 895-4649.

When the chloride concentration exceeds 100 mg/L, the withdrawal rate shall be reduced or the pump setting raised to reduce the chloride level to below 100 mg/L.

Report Continued

A completed well report of the well shall be submitted by the driller to the Department of Ecology within 30 days of completing this well. All pump test data for this well shall be submitted to the Department as it is obtained.

The Water Resources Act of 1971 specifies certain criteria regarding utilization and management of the waters of the State in the best public interest. Favorable consideration of this application has been based on sufficient waters available, at least during portions of the year. However, it is pointed out to the applicant that this use of water may be subject to regulation at certain times, based on the necessity to maintain water quantities sufficient for preservation of the natural environment.

In accordance with WAC 173-160-205, wells shall not be located within certain minimum distances of potential sources of contamination. These minimum distances shall comply with local health regulations, as appropriate. In general, wells shall be located at least 100 feet from a sewer, septic tank, privy, or other source of contamination. Wells shall not be located within 1,000 feet of a solid waste landfill.

The applicant is advised that notice of proof of appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent diversion facilities have been installed, and the system is currently in use. This includes installation of a mainline system capable of delivering the recommended quantity of water to an existing or proposed distribution system within the area to be served, and fulfillment of all other terms of this permit.

At such time that the Department of Ecology determines the regulation and management of the subject waters is necessary and in the public interest, an approved measuring device shall be installed and maintained in accordance with RCW 90.03.360 and WAC 508-64-020 through -040.

This permit is subject to the implementation of the minimum requirements established in the Interim Guidelines for Public Water Systems Regarding Water Use Reporting, Demand Forecasting Methodology and Conservation Programs, July 1990 (attached), and as revised.

Under RCW 90.03.005 and 90.54.020(6), conservation and improved water use efficiency must be emphasized in the management of the states water resources, and must be considered as a potential new source of water. Accordingly, as part of the terms of this permit, the applicant shall prepare and implement a water conservation plan approved by Department of Health. The standards for such a plan may be obtained from either the Department of Health or the Department of Ecology.

REPORTED BY: Vicki Woodruff Date: January 4, 1993

The statutory permit fee for this application is \$20.00.

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