

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 283, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

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|------------------------------------|--------------------------------|---------------|--------------------|
| PRIORITY DATE December 29, 1993 | APPLICATION NUMBER G2-28987 | PERMIT NUMBER | CERTIFICATE NUMBER |
|------------------------------------|--------------------------------|---------------|--------------------|

| | | | |
|---|-------------------|-----------------------|---------------------|
| NAME Spurgeon Creek Finny Farm | | | |
| ADDRESS (STREET) 7605 Spurgeon Creek Road SE | (CITY) Olympia | (STATE) Washington | (ZIP CODE) 98513 |

PUBLIC WATERS TO BE APPROPRIATED

SOURCE
Well

TRIBUTARY OF (IF SURFACE WATERS)

| | | |
|-------------------------------|----------------------------------|-----------------------------------|
| MAXIMUM CUBIC FEET PER SECOND | MAXIMUM GALLONS PER MINUTE 50 | MAXIMUM ACRE-FEET PER YEAR 0.3 |
|-------------------------------|----------------------------------|-----------------------------------|

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|---|--|--|
| QUANTITY, TYPE OF USE, PERIOD OF USE 0.3 Acre-feet per year Non-consumptive | Single domestic supply (In-house use only) Aquaculture | Year-round, as needed Year-round, as needed |
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LOCATION OF DIVERSION/WITHDRAWAL

APPROXIMATE LOCATION OF DIVERSION--WITHDRAWAL
1,000 feet North and 750 feet West of the East quarter corner of Section 11.

| | | | | | |
|--|---------------|-------------------|------------------------------|----------------|--------------------|
| LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SE $\frac{1}{4}$ NE $\frac{1}{4}$ | SECTION 11 | TOWNSHIP N. 17 | RANGE, (E. OR W.) W.M. 1W | W.R.I.A. 13 | COUNTY Thurston |
|--|---------------|-------------------|------------------------------|----------------|--------------------|

RECORDED PLATTED PROPERTY

| | | |
|-----|-------|------------------------------------|
| LOT | BLOCK | OF (GIVE NAME OF PLAT OR ADDITION) |
|-----|-------|------------------------------------|

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Lot 1 of Large Lot Subdivision No. LLS-0176, recorded December 3, 1982, under File No. 8212030014, EXCEPT the East 5 feet for county road. TOGETHER WITH an easement for ingress, egress and utilities over the East 30 feet of the West 446 feet of the North 826 feet of the Southeast quarter of the Northeast quarter of Section 11, T. 17 N., R. 1 W.W.M., EXCEPT that portion lying Northerly of the Southerly line of Spurgeon Creek Road.

DESCRIPTION OF PROPOSED WORKS

8" X 100' well

DEVELOPMENT SCHEDULE

BEGIN PROJECT BY THIS DATE:

February 1, 1997

COMPLETE PROJECT BY THIS DATE:

February 1, 1998

WATER PUT TO FULL USE BY THIS DATE:

February 1, 1999

REPORT

BACKGROUND:

Under the provisions of Chapters 90.03 and 90.44 Revised Code of Washington (RCW), Corky Hansen, Spurgeon Creek Finny Farm, of Olympia, Washington filed an application to withdraw public ground water. The amount requested is 50 gallons per minute for aquaculture, irrigation, and single-domestic supply. The application was assigned No. G2-28987 and given a priority date of December 29, 1993.

Public Notice

Public notice appeared in the "Olympian" of Olympia, Washington on February 8 and 15, 1994. No protests were received as a result of the public notice.

Preliminary Permit to Drill and Test

A request for a preliminary permit to drill and test the proposed well was submitted with the application. On March 23, 1994, Ecology granted a preliminary permit. The applicant decided to wait for a formal permit decision before constructing the new well.

Because this aquaculture project is considered to be largely non-consumptive, i.e. infiltration gallery to mitigate impacts to the shallow aquifer, the following partial approval is recommended:

- Single-domestic supply (in-house use only)
- Aquaculture -- Non-consumptive

Water use for outside irrigation of 3 acres is not authorized.

I recommend partial approval of this application based on the following report:

INVESTIGATIONS:

In consideration of this application, I conducted an evaluation of pertinent state records including recorded-water rights, registered claims, well-construction reports, information submitted with the application, relevant hydrogeologic studies, Chapter 173-513 WAC, Chapter 173-511 WAC and consultation with an Ecology Water Resource hydrogeologist.

Location and Site Description

The project site is located in Olympia about one-quarter mile south of Yelm Hwy, off Spurgeon Creek Road. Surrounding land use is comprised of single and multiple-domestic homesites, small-family farms, and agriculture. Site elevation is approximately 210 feet above sea level.

Eaton Creek, tributary to Lake St. Clair, Lake St. Clair, McAllister Springs and McAllister Creek (WRIA 11) are located east, and northeast of the project site within 3 miles.

Pattison Lake (WRIA 13) is located one mile north of the project site. Spurgeon Creek, tributary to the Deschutes River (WRIA 13), is situated approximately one mile south of the site at an elevation of about 200 feet above sea level. The Deschutes River is approximately four and one-half miles west of the site, draining northerly toward Capitol Lake at an elevation of about 190 feet above sea level.



System Design

Existing Well

Well Depth: 65 ft
 Casing Diameter: 6 in
 Static Level: 34 ft
 Bail Test Yield: 25 gpm
 Driller: Harold Mykol
 Constructed: August 12, 1983

Proposed Well

Well Depth: 100 ft
 Casing: 8 in

The existing 6 inch well no longer provides adequate supply. The applicant proposes construction of an 8 inch replacement well to a depth of 100 feet below ground surface.

The aquaculture project has been in existence since 1986. Water presently is pumped from the existing well to a holding tank, then to four quarantine bins. From the bins water discharges to a 10' deep by 40' long by 12' wide infiltration gallery. The infiltration gallery is lined with a mesh fabric and river rock. Native grasses cover the gallery, allowing very little, if any, evaporation.

Future expansion will include constructing the 8-inch replacement well, and adding 10 additional quarantine bins.

Aquifer Characteristics

Based on well-construction reports for wells in the vicinity of the proposed project, it appears that existing wells derive water from unconfined and semi-confined aquifers. Ground water within these aquifers generally moves toward marine water bodies and to major surface-drainage channels. Generally wells within the above mentioned aquifers range in yield from 50 to 250 gallons per minute.

Based on evaluation of the existing information, the ground-water movement from this vicinity is in a north northeast direction toward McAllister Springs and McAllister Creek.

Existing Water Rights

The following recorded-water rights, registered claims, and well- construction reports are on file with Ecology within a one-half-mile radius of the subject site:

- Nine ground-water rights have been issued authorizing a combined instantaneous withdrawal of 3,730 gallons per minute, 851.7 acre-feet per year. The largest use of water is for agriculture. Other uses are single and multiple-domestic supply, recreation and beautification.
- Seventy three ground-water claims and two surface-water claims are registered that may be within the same one-half-mile radius.
- Several well-construction reports are on file with Ecology within a one-half-mile radius of the subject site. Wells range in depth from 28 to 301 feet below ground surface.

Chapter 173-513 WAC Instream Resources Protection Program--Nisqually River Basin, Water Resource Inventory Area (WRIA) 11

Instream flows and closures have been established for the Nisqually River, and tributaries. Ground-water discharge sustains the base (low) flows of streams in the watershed and additional pumping could cause a reduction in stream flows by capturing ground water that naturally discharges to streams.

When assessing impairment of existing rights, the evaluation includes not only protection of existing water users but also those rights established for minimum base flow in streams and rivers. Consumptive use of ground water eventually diminishes stream flow, either by capturing ground water which would have naturally discharged to surface water, or by inducing water flow from streams to wells.

Non-consumptive uses of water which would not conflict with the purpose of this chapter can be allowed.



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Ecology Approval Requirements

Prior to approving new allocations of water, Ecology must determine that:

- water is available for appropriation
- water will be put to beneficial use
- the appropriation will not impair existing rights
- the appropriation will not be detrimental to public welfare

FINDINGS AND CONCLUSIONS:

Based upon the above investigation, the Department of Ecology finds the following:

1. The proposed use is a beneficial use of water.
2. The source of water requested is in hydraulic continuity McAllister Springs and McAllister Creek which are closed to consumptive appropriation.
3. Chapter 173-511 WAC has an exemption for single-domestic supply (in-house use only), if no alternative source is available.
4. No alternative water source is available.
5. Non-consumptive water use can be allowed.
6. The requested use for aquaculture is non-consumptive.
7. Water use from the source requested as permitted should not impair existing rights.
8. Water is available for single-domestic supply (in-house use only), and non-consumptive appropriation for aquaculture.
9. The proposed appropriation will not be detrimental to public welfare.

Water Requirements

Water requirements for single-domestic supply (in-house use only) should not exceed an average of 300 gallons per day, or 0.3 acre-feet per year.

Water use for aquaculture is considered to be non-consumptive.

RECOMMENDATIONS:

I recommend partial approval of this application and issuance of a permit to allow withdrawal of 50 gallons per minute 0.3 acre-feet per year for single-domestic supply (in-house use only), and non-consumptive aquaculture.

This permit shall issue subject to all applicable state regulations and the following provisions:

"Water use shall be limited to single-domestic supply (in-house use only), and non-consumptive aquaculture."

"Outside irrigation is not authorized"

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.

An approved metering device shall be installed and maintained in accordance with RCW 90.03.360, WAC 508-64-020 through -040 (installation, operation, and maintenance requirements are attached). Meter readings shall be recorded at least monthly.

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Report Continued

"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 distribution system has been constructed and that quantity of water allocated by the permit has been put to full beneficial use."

In order to maintain a sustainable supply of water, pumping must be managed so that static water levels do not progressively decline from year to year. Water levels shall be measured and recorded monthly, using a consistent methodology. The length of the pumping period or recovery period prior to each measurement shall be constant, and shall be included in the record. Data shall be submitted annually, in the month of February, to the Department of Ecology.

A permit from the Department of Fish and Wildlife may be needed to raise fish in any state waters. This permit shall be secured prior to operation of the facility.

REPORTED BY: Victor Windust Date: December 29, 1995

The statutory permit fee for this application is \$25.00.

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