

When recorded return to:  
Doug Hanson  
2611 39<sup>th</sup> Ave W  
Seattle, WA 98199



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## DRINKING WATER SYSTEM STATUS REPORT

### WELL WATER ARSENIC AND RELIC SEAWATER DISCLOSURE

Common Legal Address: 33815 S. Shore Drive, Mount Vernon, WA 98273

Tax Parcel No. # P66729

Section 27 Township 33N Range 6E WM Quarter Section NW 1/4, NW1/4

Legal Description ( ) Attached ( X ). As follows:

Present Owner's Name: Doug Hanson

Three samples of water taken for arsenic and analyzed by Edge Analytical of Burlington on 5/25/06, 6/19/06, and 6/28/06. The arsenic levels were 178 ppb and 83 ppb, and 200 ppb respectively. Edge also analyzed other primary contaminants on 5/25/06. The measured conductivity was 2860 mg/l, while the sodium and chloride were measured at 447 and 626 mg/l respectively.

I, the undersigned property owner, in making an application for a building permit involving a single-family residence acknowledge that this notice being signed, notarized and recorded in compliance with Skagit County Code Section 12.48.270 in regards to a drinking water quality parameter that exceeds the maximum contaminant level (MCL) but is treatable to below the MCL.

- I agree to record this notice with the Skagit County Auditor's Office for the purposed of it being made a part of the record of title
- I understand that this notice will appear on any title search or record search, and have no objection nor will I make claims against Skagit County as a consequence of this recording.
- The drinking water source for this residential building is located in an area exhibiting relic seawater.
- I, as the property owner, state and acknowledge that failure to sample and maintain the treatment system may result in adverse health effects to the users of the water supply and that any untreated water is considered unsafe for consumption.
- I, as the property owner, have an obligation and responsibility to notify future property owners, heirs, successors, or tenants about the treatment device, proper maintenance and operations, sampling requirements, potential health risks, and most recent sample results of the water supply for both before and after treatment for arsenic.
- Some people who drink water containing arsenic in excess of the maximum contaminant level over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer - 40 CFR 141.154(f) and 141.153 (d)(6)).

- The MCL's and/or maximum recommended levels by the American Heart Association for the subject contaminants are:

- ☐ Arsenic - 0.050 mg/l
- ☐ Conductivity - 700 u ohms
- ☐ Sodium - 200 mg/l
- ☐ Chloride - 25 mg/l

This water source was treated to yield drinking water below the MCL's for the contaminants listed above with the following equipment:

**Arsenic removal device:**

The treatment equipment that was installed to remove the arsenic from the water supply is:

- Sea Metric Water Meter
- Two LMI Injection Pumps for Chlorine and Ferric Chloride Injection
- 10-gallon Storage Tank for the Chlorine Solution
- 10-gallon Storage Tank for the Ferric Chloride Solution
- Amtrol 120 gallon contact tank
- Water Right Impression Back Washing Media Filter
- 1,000 gallon Premiere Plastic Storage Tank
- Flint and Walling CJ 101 Booster Pump
- 85-gallon Wellmate pressure tank

The location of the installed filter equipment is in a pump house located on the property. All water used at the residence will be treated for arsenic.

**Relic seawater treatment device:**

A point of use (POU) Water Right Eclipse Reverse Osmosis (RO) unit has been installed to deliver water at the kitchen sink that is treated for conductivity, sodium, and chloride. The RO filter can treat approximately 10 gallons per day.

**Minimum operation and maintenance requirements:**

**1. For the arsenic treatment process:**

- To ensure the treatment system operates properly it is important to maintain a sufficient level and concentration in the ferric chloride and chlorine solution storage tanks. It is recommended to check the level in the storage tanks at least once a week and refill as necessary.
- It is recommended that a qualified service technician check the equipment operation a minimum of four times per year for the first year and a minimum of once a year afterwards to help ensure the system is working properly. Testing iron, pH, arsenic, TDS, and Sodium in the untreated and treated water should be part of the service. Additionally, verify that free chlorine exists prior to the Water Right back-washing filter. Based on the test results, recalibration of the injection rates of iron and chlorine may be required. Refer to the original plans, specifications, and calibration instructions for additional details.
- The frequency of service by a qualified technician other than the owner is dependant upon how well the owner understands the treatment system and how well the owner monitors, adjusts, and maintains the system to meet the specified requirements. If the homeowner is ever unsure about the system, its operation, maintenance schedule, etc. Garrison Engineering recommends contacting a qualified technician for assistance.
- Due to the high level of iron in the treatment process, the Water Right iron filter control head may need to be serviced periodically by removing it from the treatment vessel and cleaning off the iron build up.



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2. **For the relic seawater treatment process:**

- Regarding the RO filter system, it is recommended to change the carbon filters before and after the RO filter annually. The RO filter should be changed annually or when the treated water quality deteriorates or if flow is restricted through the filter membrane.

**Method of treatment process and residuals management:**

- The chemically bonded iron and sorbed arsenic will be back washed to a nearby drain field located more than 50 feet away from the shore of Lake Cavanaugh. All known current regulations allow for arsenic concentrations of up to 5 ppm in the discharge from a public water treatment facility.
- The waste from the RO filter can be discharged to the residential septic system.

**Minimum ongoing testing requirements:**

- It is advised that the homeowner test the water quarterly with a home arsenic test kit, and annually by a State certified laboratory. For quarterly testing, the homeowner may use a field test kit (Hach EZ Arsenic Test Kit, Cat. # 28228-00 or equal). The annual sample can go to any State certified test laboratory.
- It is recommended to test annually for pH, iron, hardness, conductivity and free chlorine in the raw and treated water. These test results may help to diagnose any maintenance problems that could be developing.

If arsenic levels in the treated water ever exceed the MCL, adjustments can be made to the chlorine and ferric chloride injection/filter systems. Contact Garrison Engineering or another qualified engineer for further information.

**Final Tested Water:**

The treated water was tested for arsenic on 2/15/08 by Edge Analytical in Burlington, WA. The results were 0.010 mg/l of arsenic in the treated water.

Applicant Signature \_\_\_\_\_

Date

2/28/08

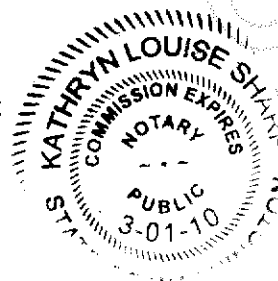
STATE OF WASHINGTON  
COUNTY OF SKAGIT

I certify that I know or have satisfactory evidence that Douglas Hancock is the person who appeared before me, and said person acknowledged that he/she signed this instrument and acknowledged it to be his/her free and voluntary act for the uses and purposes mentioned in the instrument.

Kathryn L. Sharp

NOTARY PUBLIC, in and for the  
State of Washington  
Residing at: Skagit Co.

My commission expires: 3-01-2010



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