

SUBMITTED AT PLANNING COMMISSION HEARING  
11/7/2019

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October 9, 2019, Thursday

Pat Royer

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Newberg, Oregon 97132

RE: Yamhill County Docket No. SDR 28-19



The following background comments and detailed hydrogeologic research are meant for a discussion before the Yamhill Planning Commission, this evening, about a Site Plan for the proposed Hemp growing and processing facility at 18505 NE Jaquith Road (Township 2 South, Range 2 West, Section 31 NE/4 of SE/4).

### **BACKGROUND**

Between 1985 and 1988, I did the original field work in implementing the Chehalem Mountains Limited Groundwater Area. The original intent of the field work was to protect the Area from residential overdevelopment, where houses could have been so close to one another that newer water wells would drain nearby existing domestic wells. As subsequently ordered in 1991, the conditions of the Chehalem Mountains Groundwater Limited Area were meant to manage residential and vineyard development. Between 2005 and 2009, the Oregon Water Resources

Department (OWRD) discovered that long-term water level interferences could be caused by static and pumped water escaping from uncased wells. In 2009, the Department created a state-wide rule that deep wells should be cased to one-hundred feet above the water-bearing zone. OWRD subsequently created a 5-year Water Lease rule that allowed vineyards among residences under (OAR 690-502-0200). More recently, hemp growing and processing facilities have been allowed to obtain five-year Limited Leases of groundwater (Jerry Clark OWRD Water Right Section, personal communication, October 30-November 1, 2019). These leases are renewable after review of accumulated water use and water level records.

Obtaining a Limited Water Lease is as rigorous as obtaining a water right. The lease has to be approved by the Director of OWRD, having found that “the proposed used and amount of water do not pose a threat to the groundwater resource of existing permit holders”. Exempt users such as residential well owners have a “prior right to the water”. The overall aquifer is shared by the users, but the requirement for the new irrigation use is very stringent. I have been involved in two Water Leases in the Salem Hills Groundwater Limited Area. Both involved field work and study by teams of higher-ranked OWRD hydrogeologists. Drilling depths and well casing cementing were reviewed and approved before the actual drilling. Two water wells were drilled into the water-bearing zone at the owner’s expense. Drilling cuttings were ordered at ten foot vertical intervals for OWRD microscope inspection and basalt formation identification. One well was chosen as the pumping well and another wells, 500 to 700 feet away, was the observation well. A twenty four hour pumping test was run and followed by a twenty four hour recovery period. Both the pumping period and the recovery period were monitored by OWRD-operated automatic water level monitoring equipment.

### **HYDROLOGIC RESEARCH**

A study of the water wells in the local area around the proposed site indicates that there are many deep domestic wells that are 400 to 600 feet deep. Drilling has to go deep because the interior of the mountain crest is fractured and groundwater is not held up high in the rock section. The domestic wells are small producers the aquifer characteristics within the Chehalem Mountains would be very discouraging.

Unlike some vineyards east of Newberg, where the irrigation well is in the center of the vineyard and far from residential water wells, the water-supply well for this hemp facility is located among many water wells. A water-supply well that is pumping the needed 58,000 gallons per day would be like drawing water for more than 100 new dwellings in a tight area. The Basalt aquifer could not keep up with it and a sharp water level decline would begin within a year. This daily volume of water would conflict with the original intent of the Groundwater Limited Area declaration of 1991. OWRD is not going to approve this site plan. I cannot recommend a hemp facility here.

Respectfully,

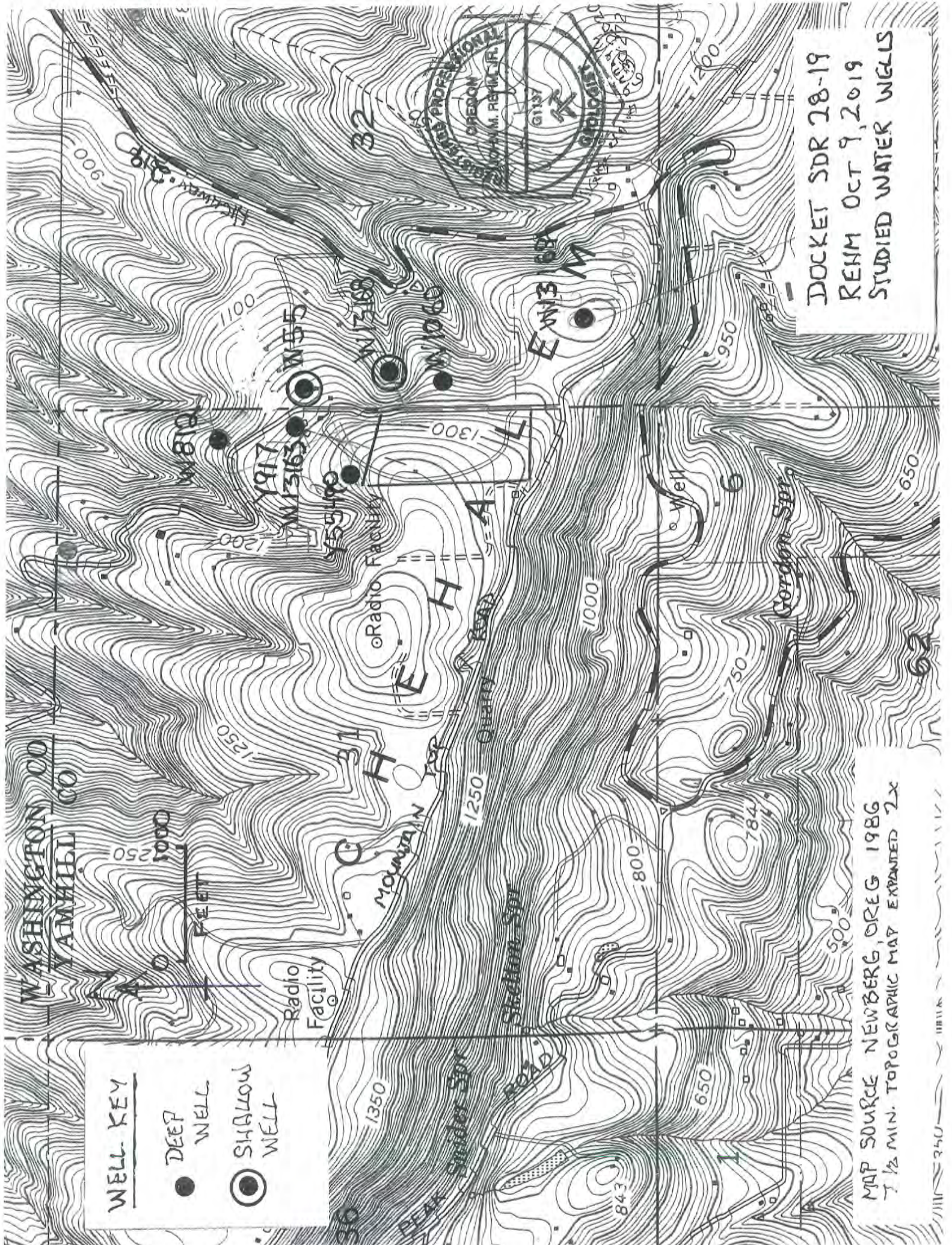


John M. Rehm

Hydrogeological Consultant

REHM GEOLOGICAL, Salem, Oregon      October 9, 2019





WELL KEY

- DEEP WELL
- SHALLOW WELL

DOCKET SDR 28-19  
 RENM OCT 9, 2019  
 STUDIED WATER WELLS

MAP SOURCE NEWBERG, OREG 1986  
 7 1/2 MIN. TOPOGRAPHIC MAP EXPANDED 2x



690-502-0200

**Chehalem Mountain, Eola Hills and South Salem Hills Ground Water Limited Areas**

(1) Groundwater in the basalt aquifers in the Chehalem Mountain, Eola Hills and South Salem Hills Groundwater Limited Areas is classified for exempt uses, irrigation and rural residential fire protection systems only. ~~Permits may be issued, for a period not to exceed five years, for fire protection and for drip or equally efficient irrigation provided the Director finds the proposed use and amount do not pose a threat to the groundwater resource or existing permit holders.~~ The amount of water used for irrigation shall be further limited to one acre-foot per acre per year. Permits may be extended for additional five-year periods if the Director finds that the groundwater resource can probably support the extended use. Applications may be rejected or permit or certificate extensions may be denied if the aquifer displays any of the adverse impacts defined in OAR 690, division 008.

(2) The Chehalem Mountain Groundwater Limited Area is as described and shown in Exhibit 8. The Eola Hills Groundwater Limited Area is as described and shown in Exhibit 10. The South Salem Hills Groundwater Limited Area is as described and shown in Exhibit 11.

(3) Groundwater applications pending on October 4, 1991 shall be processed according to the classifications in effect on the date the application was filed. Permits may be issued for a period not to exceed five years and shall contain the Special Permit Conditions specified in OAR 690-502-0250. Permits may be extended for additional five-year periods if the Director finds that the groundwater resource can probably support the extended use. Applications submitted after October 4, 1991 shall be processed according to the requirements of these rules and classifications. Within two years of permit issuance, the applicant shall prepare a plan for the Water Resources Commission which shall indicate the steps for obtaining an alternate long-term water supply.

[ED. NOTE: Exhibits referenced are available from the agency.]