



800 NE Oregon Street, Suite #640
Portland, OR 97232-2162
(971) 673-0459
(971) 673-0694 – FAX
<http://healthoregon.org/dwp>

April 13, 2017

Jason Melady, RG, CWRE
GSI Water Solutions, Inc.
55 Yamhill Street, Suite 300
Portland, OR 97204

**Re: Dutch Canyon Replacement Well, Plan Review # 36-2017
City of Scappoose, PWS ID # 41 00792
Site Plan Approval**

Dear Mr. Melady:

Thank you for your submittal of plan review information to the Oregon Health Authority's Drinking Water Services (DWS) for the Dutch Canyon replacement well for the City of Scappoose. DWS received a narrative and diagram of the proposed well construction, site plan of the well's proposed location with distances to sanitary hazards, a Land Use Compatibility Statement approved by the City of Scappoose, and two water rights for this location. The proposed 240-foot deep well will replace the existing Dutch Canyon well at the same location, and will be treated at the existing Dutch Canyon treatment plant with sodium hypochlorite and potassium permanganate ahead of greensand filtration for iron removal, and caustic soda for pH adjustment for corrosion control. The existing well will be retained as a back-up source. **DWS has reviewed the well design and site plan and approves of the well's proposed construction and determined that the well's location meets all sanitary hazard setbacks outlined in Oregon Administrative Rule (OAR) 333-061-0050(2)(a)(E). Per OAR 333-061-0050(2)(a)(F), the radius of control by the City may be reduced to 50 feet, as the area of the well is served by a gravity sewer system. You may proceed with drilling the well.**

The DWS hydrogeologist has reviewed the well design and site plan with the following comments:

- Based on the well log for the existing well (COLU 100), the first water-bearing zone appears to be present at an approximate depth of 60 feet, and appears to be composed of an unconfined sand and gravel aquifer.
- The casing seal should be constructed in accordance with Oregon Water Resources Department (OWRD) construction standards. Based on COLU 100, there appears to be a layer of low permeability that occurs from about 10 feet to

roughly 60 feet below ground. Under those conditions a casing seal with a total depth of 18 feet would likely be sufficient. The proposed casing seal depth of 45 feet is likely to be more protective than minimum requirements.

- There do not appear to be any concerns associated with potential surface water influence at this location.

Upon completion of the well, please submit the following to DWS for review:

- OWRD well drillers report for the well;
- Aquifer stress test or pump test on the well;
- Wellhead detail showing a sample tap, pump to waste piping, a screened vent, etc;
- Detail of any wellhouse showing that it is lockable;
- Plan or diagram showing how the well will be connected to the water system;
- Plans for any new, proposed treatment, if applicable; and
- Water quality analyses from a sample tap at the new wellhead for the following:
 - Coliform bacteria;
 - Nitrate and Arsenic;
 - Inorganic Compounds, Synthetic Organic Compounds, and Volatile Organic Compounds; and
 - Radionuclides (gross alpha, Radium 226/228, and uranium)

If you have any questions or concerns, or would like this in an alternate format, please contact me at (971) 673-0459, or james.b.nusrala@state.or.us. Your cooperation is appreciated.

Sincerely,

James Nusrala, P.E.

Regional Engineer

Drinking Water Services

cc: Darryl Sykes, Water Plant Supervisor, City of Scappoose, 33568 East Columbia Avenue, Scappoose, OR 97056