2023 Tech Unit Drought Well Check List

Date: September 13, 2023

Evaluator: Michael Callahan

Reviewed by: John Kirk, L.HG.

Drought application number: G4-33226-23

Applicant Name: Zirkle Fruit Company, Inc

Is this a new or existing well?
4 existing wells and 1 new proposed well.

If existing well, are the requested quantities the same or less than previously evaluated and authorized for drought use?
Current requested quantity is 198.7 acre feet

Well identification (Tag, Depth of Well):

Source	TRS	QQ/Q	Well Depth (ft.)
BUI817	T16N/R19E-12	NE/NW	760
BUI818	T17N/19E-35	SW/SW	900
BLG409	T17N/19E-33	SW/SE	610
BLG410	T17N/19E-4	N2/NE	880
Proposed Well	T16N/R19E-3	SE/SE	

Name of aquifer evaluated:
Wanapum Aquifer

Does it appear that the aquifer is in overdraft condition?
No

Distance of nearest domestic or irrigation well to proposed well:

Source	TRS	QQ/Q	Approx. Distance to Possible Existing Well (ft.)
BUI817	T16N/R19E-12	NE/NW	400
BUI818	T17N/19E-35	SW/SW	1,000
BLG409	T17N/19E-33	SW/SE	350
BLG410	T17N/19E-4	N2/NE	500
Proposed Well	T16N/R19E-3	SE/SE	200

Is it likely that well interference from pumping the proposed well will result in impairment to another groundwater user?
No

Construction provisions if new well:

Wanapum Aquifer Well Construction Requirements:
To develop a well in the Wanapum Aquifer, the proposed well must comply with the following construction requirements and restrictions:

(a) Unperforated casing shall be set or placed (not driven) twenty (20) feet into the Wanapum Formation (i.e., the first competent basalt encountered).

(b) The well annulus shall be sealed with neat cement or neat cement grout. The sealing material shall be placed in the annulus by pumping to seal the entire annulus from the bottom of the casing to the land surface.

(c) The well annulus shall be at least four (4) inches greater in diameter than the permanent casing.

(d) The well depth shall terminate at or above a depth corresponding to the top of the Grande Ronde Formation. It is expected that the Wanapum Formation in this area is approximately 200-300 feet thick; therefore, the depth drilled after basalt is first encountered should be less than 300 feet. If the basalt unit is unknown or unidentifiable during drilling, XRF sampling and analysis is required to identify the basalt formation and completion zone of the well.

(e) Installation of an airline or minimum 1-inch diameter sounding tube and an access port for water level measurement is required.

When flowing artesian conditions are known or suspected, the operator shall have a written sealing plan prepared prior to initiation of construction. Flowing wells shall be so constructed and equipped with valves to ensure that the flow of water can be completely stopped when not being used. Likewise, the well shall be so maintained as to prevent the

waste of water through leaky casings, pipes, fittings, valves, or pumps -- either above or below land surface.