#### **MEMORANDUM** DATE: <u>12/5/2022</u> TO: Mary Bjork, Water Rights Program Analyst; Justin Iverson, GW Section Manager FROM: Gabriela Ferreira and Dennis Orlowski, Hydrogeologists SUBJECT: Application G- <u>12120</u> Permit G- 18527 Information to Assess Permit Renewal Request Location: T <u>3S</u>/ R <u>2W</u>- S <u>16</u> **GW** Limited Area Chehalem Mountain Groundwater Limited Area (GWLA) Permittee: **OXBERG LAKES ESTATES HOMEOWNERS ASSOCIATION** Use: Group domestic for 39 families (0.18 cfs), including irrigation of lawn or noncommercial garden not to exceed $\frac{1}{2}$ acre in area for each 5/18/1990 Priority Date: Permit History: Document/Permit Date Issued Date Expired 6/2/1997 G-11526 EX 6/2/1992 G-13675 EX 6/18/1999 6/18/2004 9/9/2004 G-15638 EX 10/31/2008 G-16744 EX 1/24/2011 10/31/2013 G-17120 EX 1/16/2014 10/31/2018 G-18527 EX 12/11/2020 10/31/2022 Q: 0.18 cfs

Well Logs:	YAMH 2385 and YAMH 2386
Decline Triggers:	"If a well listed on this permit displays a total static water-level decline of 25 or more feet over any period of years, as compared to the reference level, then the appropriators shall discontinue use of, or reduce the rate of volume of withdrawal from, the wells. Such action shall be taken until the water level recovers to above the 25-foot decline level or once the Department determines, based on the appropriator's or the Department's data and analysis, that no action is necessary because the aquifer in question can sustain the observed declines without adversely impacting the resource or senior water rights."
Renewal Criteria:	"The Director finds that the proposed use(s) of water described by this permit, as conditioned, will not impair or be detrimental to the public interest." Also: "Determination that groundwater resource can probably support extended use" (OAR 690-502-0200(1)).

Pump Test:	A pumping test for YAMH 2385 was approved on March 3, 2021 and a pumping test for YAMH 2386 was completed on August 4, 1997.
Long-term Supply Plan:	Submitted in 1998.
Water Use Reporting:	Submitted from water years 2000 through 2021.
COBU:	Yes (received 7/11/1997).
Water Level Reporting:	Yes. Permittee is required to submit a March water level each year; current through 2022 (see attached hydrograph for YAMH 2385 and YAMH 2386).
Ref. Water Levels:	Well #1 (YAMH 2386) – 20 feet below land surface, Well #2 (YAMH 2385) – 31 feet below land surface
SWL Data:	See attached hydrograph for YAMH 2385 and YAMH 2386.

## **Comments**

TRIGGERS. No triggers have been exceeded since the last permit renewal in 2014.

Historical water levels for the wells dating back to 2000 generally show annual fluctuations of up to 5 feet, with a few years (2004, 2005) up to 10 feet. Since 2019, water levels have varied up to 20 feet and are reported as static measurements. From 2018 through 2021, annual precipitation was lower than usual as shown by the deviation from mean precipitation plotted with the attached hydrograph. This variation may reflect effects of the multiyear drought and increased groundwater use.

## **RECOVERY FROM TRIGGER LEVELS.** <u>This is not a current issue.</u>

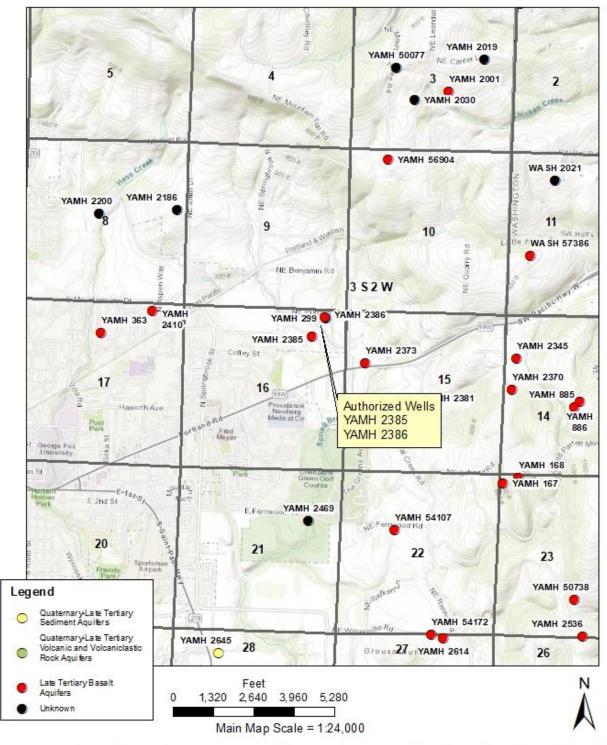
AREA WATER LEVEL BEHAVIOR. <u>Nearby wells within about 3 miles show generally</u> stable water levels (see attached hydrograph for nearby observation wells). Groundwater data from the permitted wells (YAMH 2385 and YAMH 2386) show recent high variability, as described above. Other nearby observations wells do not show the same behavior, which suggests the water level variability is limited to the POAs.

**PERMIT RENEWAL.** <u>The groundwater resource can probably support the extended use.</u>

### The Groundwater Section finds that renewal criteria for permit G-18527 have been satisfied.

If renewed by the Water Rights Section, it is requested that the renewal for application G-12120/permit G-18527 include an **expiration date of October 31, 2028**. The Groundwater Section proposes that, to the extent possible, all time-limited permits within a particular GWLA possess the same expiration date. The goal for synchronizing expiration dates will be to streamline future groundwater technical reviews by allowing them to be done concurrently for a particular GWLA.

# Permit G-18527 EX, Renewal Review Oxberg Lakes Estates Homeowners Association T3S/R2W, Section 16



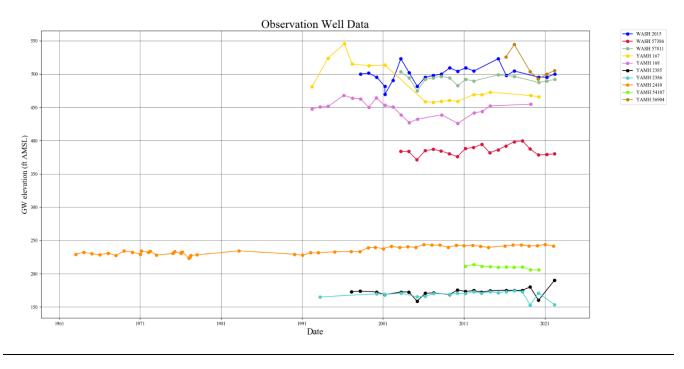
Service Layer Credits: Sources: Esri, HERE, Garmin, Internap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community

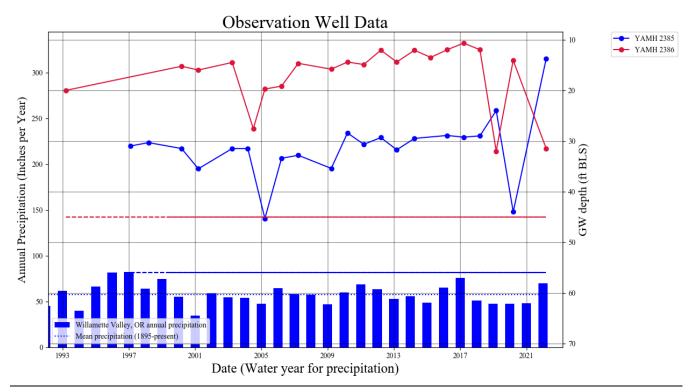
## Water Use Report Based on Water Right

Permit: G 18527 EX OXBERG LAKES ESTATES HOMEOWNERS ASSOCIATION 4307 BIRD HAVEN LOOP NEWBERG, OR 97132

Records per page: 10 <u>View All</u>															
Acre-feet (AF) of Water Used															
Water Year*	<u>Report ID</u>	<u>Facility</u>	<u>Oct</u>	Nov	Dec	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	Aug	<u>Sep</u>	Total Water Used Irrigated Acres
2021	<u>36073</u>	OXBERG WELL 2/BIRD HAVEN LP (YAMH 2385)	3.48	2.24	2.15	2.11	3.95	4.38	4.38	4.38	22.92	22.92	33.93	8.54	115.36
2021	<u>45988</u>	OXBERG WELL 1/PUTNAM RD (YAMH 2386)	0.58	0.53	0.38	0.72	0.91	0.91	0.91	0.91	3.04	3.04	6.69	1.88	20.52
2020	<u>36073</u>	OXBERG WELL 2/BIRD HAVEN LP (YAMH 2385)	3.47	2.76	4.43	4.82	4.72	4.72	5.87	5.44	23.25	27.26	27.26	4.22	118.23
2020	<u>45988</u>	OXBERG WELL 1/PUTNAM RD (YAMH 2386)	0.10	0.10	0.10	0.11	0.06	0.08	0.08	1.00	1.00	1.00	0.45	0.45	4.53
2019	<u>36073</u>	OXBERG WELL 2/BIRD HAVEN LP (YAMH 2385)	10.36	3.89	3.63	3.93	2.87	3.68	3.01	13.13	29.06	43.58	13.11	8.53	138.77
2019	<u>45988</u>	OXBERG WELL 1/PUTNAM RD (YAMH 2386)	0.03	0.01	0.01	0.01	0.01	0.01	0.01	0.03	0.10	0.10	0.06	0.01	0.37
2018	<u>36073</u>	OXBERG WELL 2/BIRD HAVEN LP (YAMH 2385)	6.06	3.15	3.78	1.91	3.06	2.47	2.93	16.11	21.92	64.49	7.39	19.55	152.83
2018	<u>45988</u>	OXBERG WELL 1/PUTNAM RD (YAMH 2386)	0.14	0.13	0.17	0.07	0.14	0.15	0.15	0.43	0.43	1.15	0.16	0.40	3.53
2017	<u>36073</u>	OXBERG WELL 2/BIRD HAVEN LP (YAMH 2385)	0.36	0.35	0.53	0.29	0.26	0.44	0.38	1.45	2.61	3.72	5.18	1.45	17.00
2017	<u>45988</u>	OXBERG WELL 1/PUTNAM RD (YAMH 2386)	0.02	0.02	0.03	0.02	0.01	0.02	0.02	0.03	0.07	0.07	0.14	0.03	0.49
12345															
"The water year is named for the calendar year in which it ends. Example: the 2018 water year begins Oct. 1, 2017 and ends Sep. 30, 2018.															

## Hydrograph – Area observation wells





## Hydrographs - Authorized POAs (YAMH 2385 and YAMH 2386)