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SALEM, OR



August 3, 2015

Jen Woody
Hydrogeologist
Oregon Water Resources Department
725 Summer St. NE, Suite A
Salem, OR 97301

Subject: Request for a 5-Year Time Extension for ASR Limited License #017
October 2015 to October 2020

Dear Jen:

On behalf of the Hillsboro School District (District), this letter requests a 5-year time extension for Aquifer Storage and Recovery (ASR) Limited License #017. In summary, the following is requested by this letter:

- A 5-year time extension for ASR Limited License #017 from October 25, 2015, to October 25, 2020.

Under a separate request, the District will apply for an ASR permit for this project from the Oregon Water Resources Department (OWRD). However, given the timing of the renewal, we felt it would be best to first renew the current ASR limited license and then work with OWRD on applying for the ASR permit for the project.

We understand that certain criteria must be met to grant an extension; a discussion is provided in the following sections.

Rationale for Time Extension

The District requests an extension of time for ASR Limited License #017 to continue to evaluate the feasibility of its ASR program in the Hillsboro area and to allow time to prepare and submit an ASR permit to OWRD. Since the ASR limited license was issued in 2010, the District has completed ASR cycle testing using Liberty High School's pre-existing irrigation well. The irrigation well was successfully converted to an ASR well, and although the well has a low specific capacity, the volume of water that can be injected per year is sufficient to meet irrigation demands. The yearly irrigation demands for the school are roughly 10 million gallons (MG); however, the District has stored up to 22 MG (2015 in Year 5). The extra water stored in the aquifer is insurance in case the District needs to pump more water during a prolonged

drought. Moreover, this additional water helps to buffer the native groundwater, which is higher in total dissolved solids.

The District does not have any plans to expand its ASR network (e.g., adding an additional ASR well to the system) and thus will apply for an ASR permit in late 2015 based on findings to date. With that said, the District would like to request a 5-year extension to the ASR Limited License #017 from October 25, 2015, to October 25, 2020.

Compliance with the Terms and Conditions of the Current Limited License

Several terms and conditions are defined in ASR Limited License #017, such as groundwater monitoring and water quality sampling. The District has complied with the terms of ASR Limited License #017 and has worked in good faith to report ASR pilot testing data to OWRD on an annual basis. The District has never received a notice from OWRD that it is out of compliance with the terms of the limited license.

The District's compliance with the terms and conditions of the original limited license is discussed below.

- Maximum Rate Compliance – The maximum recovery rate of 320 gallons per minute (gpm) was not exceeded in Year 1 or Year 2. However, the recovery rate slightly exceeded the permitted recovery rate at 354.9 and 330.2 gpm in Year 3 and Year 4, respectively. Both of these instances were at the initial start of recovery and lasted less than 1 hour and are related to startup activities in which the well needed to be “dialed in” to a set rate. The average recovery rate during these same years (Year 3 and Year 4) was 185 and 118 gpm, respectively.
- Maximum Storage Volume Compliance – The maximum storage volume of the current ASR limited license is 30 MG, which has not been exceeded. The maximum storage account stands at 22 MG in 2015 (Year 5).
- Condition 1 – This letter requests an extension.
- Condition 2 – The District will strive to inform the local watermaster of its intent to store and recover water as part of this ASR project.
- Condition 3 – The District has kept records of the injection and recovery volumes and has reported the data to OWRD in the annual ASR reports.
- Condition 4 – The District understands that the ASR limited license may be revoked or modified by OWRD.
- Condition 5 – The District understands that the ASR limited license does not receive a priority date like a water right.
- Condition 6 – The District has complied with all state and local permits with regard to injecting, recovering, and pumping to waste. The ASR pump station is plumbed to the onsite irrigation system and to the storm drain system for pumping to waste. Water from the ASR well is not connected to Liberty High School's potable water system.
- Condition 7 – OWRD received an ASR work plan before pilot testing began.

- Condition 8 - Injected, stored, and recovered water have met all state (Oregon Health Authority - Drinking Water Program) and federal drinking water standards, with no exceedances of maximum contaminant levels (MCL) through Year 4. In Year 5, there was a total coliform detection in the storage water sample. After further investigation, and after three additional bacteria tests, it was determined that the total coliform detections were associated with the onsite pressure tank. A new sampling port was installed at the wellhead and subsequent samples have been negative for total coliform.
- Condition 9 - The District understands that it can recover only 95 percent of the volume injected during a given water year, plus carryover, and the District has not pumped more than this allotted amount each year.
- Condition 10 - Yearly ASR reports have been submitted to OWRD since the start of ASR pilot testing.
- Condition 11 - All digital water level data have been formatted per OWRD specifications and submitted to the agency with the annual ASR report.
- Condition 12 - No injuries to existing groundwater users have been reported since the start of ASR activities by the District.
- Condition 13 - The recovered water has been used for irrigation of Liberty High School's athletic fields; this use is authorized under certificated water rights used to supply the ASR system (67891, 85913, 81026, and 81027).
- Condition 14 - OWRD has not suggested additional conditions.
- Condition 15 - A poster was made at the on-set of the ASR program that describes the project. For a brief period of time, the poster was displayed onsite. The District is considering using this ASR program as an educational tool for the school's science program.
- Condition 16 - Periodic inspections are conducted for possible ASR-related effects, and no adverse effects have been observed.
- Condition 17 - The residual stored water to be carried over to the following water year has been reported to OWRD in the annual report.

Thank you for considering this request and please do not hesitate to call us at 503.239.8799 if you have questions.

Regards,



Larry Eaton, RG
Principal Hydrogeologist



Renee Fowler
Senior Staff Environmental Scientist

Cc: Adam Stewart - Hillsboro School District
Casey Waletich - Hillsboro School District
Jim Peterson - Hillsboro School District

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