

MEMORANDUM

Date: September 21, 2022

To: Board of Directors
Valley at Winter Park Water District

From: Chris Purrington, P.E.

Re: Opinion of Water System Improvements

WATER SYSTEM REVIEW

Purrington Civil, LLC (PC) performed a preliminary review of the water system. This review included:

- Two (2) site visits including one with the Operator, Doug Bellatty. A preliminary inspection of the well house was performed that included the well house structure, internal piping and electrical. A preliminary inspection of the water storage tank was also performed that included a site review and observing each access manhole. The site visits also included discussions with LL Kourse regarding recent estimates received regarding potential repairs to the system.
- Reading the Water System Infrastructure Report prepared by Diamondback Engineering dated August 10, 2021. This report provided an overview of the system including operation, historical water use, supply, fire flow, and storage.

OPINION OF REPAIRS AND IMPROVEMENTS

Based on our limited knowledge of the condition and history of the system, we offer the following opinion of a recommended path forward. This path forward is to address issues to achieve a reliable and compliant water system.

Immediate Recommended Needs

Well Pump Replacement. According to the Diamondback Report, the well and well pump were installed in 2004. It is estimated that the useful life of the pump is 20 years and per the report, has never been replaced.

SCADA System. According to Doug and LL, there is no working alarm or communication system in place that monitors ground water level, pumping operations, chlorine metering and / or tank level. It is our understanding that the well pump would need to be pulled to install the well level sensor – so the Well Pump Replacement and SCADA system work go together.

Future Recommended Needs

Well House Replacement. The location of the well house is such that it is difficult to access in the winter as it is in the middle of the meadow. The piping and configuration are outdated and the building itself has seen repairs to the foundation and roof (according to LL). We recommend that a new well house be constructed adjacent to County Road 5194. This new well house would replace the existing one in its entirety. It would have year-round vehicle access, updated piping and communication, and be configured for a second well,

Second Well. For redundancy, a second well is recommended.

Water Storage Tank Replacement. According to the Diamondback Report, the water storage is adequately sized and has approximately 17 years of useful life remaining. We recommend that the District plan for its replacement before the end of its useful life. We also recommend reviewing the systems capability for delivering fire flow demand and possibly providing additional fire flow storage (i.e. cisterns).