



## DEPARTMENT OF UTILITIES

**Department of Utilities**  
Wastewater Treatment Plant  
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[www.appleton.org/government/utilities](http://www.appleton.org/government/utilities)

### MEMORANDUM

**Date:** July 2, 2025  
**To:** Chairperson Brad Firkus and Members of the Finance Committee  
**From:** Chris Stempa, Utilities Director  
**CC:** Ryan Rice, Utilities Deputy Director  
Kelli Rindt, Enterprise Fund Accounting Manager  
**Subject:** **Award Sole Source Purchase of Appleton Wastewater Treatment Plant phosphorus analyzer to William Reid LTD. for a total cost not to exceed \$49,845.00.**

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### BACKGROUND:

Since 2014, the Appleton Wastewater Treatment Plant (AWWTP) has been operating online phosphorus analyzers to continuously monitor phosphorus concentrations in the treatment process and react to them accordingly in order to consistently comply with future WPDES permit limits. It is critical for process control instrumentation to have the ability to deliver consistent, accurate, and reliable data to effectively dose phosphorus removal chemicals, while providing acceptable lifecycle costs and ease of maintenance.

The current equipment installed in 2014 has reached its useful life, with increasing maintenance issues, outdated components, and a growing risk of operational failure that threatens process performance and compliance.

A multidisciplinary evaluation team consisting of staff from Operations, Laboratory and Maintenance completed a comprehensive technical review of available online phosphorus analyzers for potential procurement and integration at the Appleton Wastewater Treatment Plant. The goal of the evaluation was to identify equipment that delivers reliable, accurate monitoring with acceptable lifecycle costs and strong integration capabilities with the plant's SCADA infrastructure.

Online phosphorus analyzers from two vendors were evaluated:

- Chemscan miniOP (William Reid LTD)
- Xylem/YSI Alyza IQ (Mulcahy Shaw Water Inc)

Two analyzers were scored across eight weighted criteria:

- Consistency of Results (Meter Repeatability)
- Accuracy Compared to Lab Results
- Maintenance Frequency

- Maintenance Difficulty
- SCADA Connectivity / HMI Controls (Ease of Use)
- Expandability (Other Parameters)
- Initial Cost
- Annual Operation and Maintenance (O+M) Costs

#### **JUSTIFICATION FOR SOLE SOURCE:**

The Chemscan miniOP scored higher in multiple categories, notably in consistency, ease of maintenance, and total cost of ownership. The evaluation team noted that while both units are viable options, the Chemscan miniOP offered better performance and operational value for long-term use. Below is the sum of all members of the evaluation team.

<b>Analyzer</b>	<b>Total Score</b>
Chemscan miniOP	229
Xylem YSI / Alyza IQ	171

#### **RECOMMENDATION:**

Based on the total weighted scores and overall evaluation, the Chemscan miniOP is recommended for purchase. If you have any questions or require additional information regarding this evaluation and purchase, please contact Chris Stempa at 920-832-5945.

**Encl:** Finance Department Sole Source Request Form