EXTERNAL MEMORANDUM

To: Chatfield Watershed Authority Technical Advisory Committee ("CWATAC")

From: Alan J. Leak, P.E.
Principal
RESPEC
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Date: November 30, 2022

Subject: Perry Park Water and Sanitation District (PPWSD) – Waucondah Wastewater Treatment Facility (WWTF) Site Application – Review Status Report

PROJECT SUMMARY

Site Application for the replacement of the existing aerobic digestion facilities with a new aerobic digestion process.

APPLICABLE REGULATIONS /DOCUMENTS

- Regulation #73
- CWA Policy - Review Criteria for Site Location and Design Approvals (1/24/2022)
- Regulation #22
- Regulation #22 Implementation Policy (Clean Water Program Policy Number: CW-14)

TIMELINE

- November 16, 2022 - Site Application submitted to CWA
- November 30, 2022 – Review application completed

SITE APPLICATION

The Site Application (Application) was initially reviewed based upon the CWA's Review Criteria for Site Location and Design Approvals. The criteria for review is presented in the "Authority Review Criteria" section as follows:

1. Phosphorus Wasteload Allocation - Control Regulation 73 includes phosphorus wasteload allocations (in pounds per year) that are distributed among sources. Section 73.3.2(c) provides a list of sources including WWTFs and each source's respective wasteload allocation. The Applicant will demonstrate the annual phosphorus wasteload allocation is not in exceedance and/or provides a plan of how the Applicant will remain within the designated annual phosphorus wasteload allocation.

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2. Phosphorus Concentration Limit - Control Regulation 73 includes the design capacity discharge from a receiving WWTF will not exceed 1.0 mg/l total phosphorus as a 30-day average concentration.

3. Emergency Response Criteria - The Chatfield Watershed Authority has previously adopted for its use the March 28, 2002, Cherry Creek Reservoir Watershed Site Application Review Process Emergency Response Plan Criteria (Cherry Creek ERP Criteria). The applicant will demonstrate in the site location approval application that all Cherry Creek ERP Criteria are addressed. For WWTFs each applicant will include information regarding generator back-up systems, response plan to overflow, plans to avoid spills, and cover all Cherry Creek ERP Criteria.

4. Consolidation of Treatment Works – Regulation 22 requires that site location applications be accompanied by an engineering report that addresses, among other information, analysis of opportunities for consolidation of treatment works. Based on § 25-8-702(2), Regulation 22 requires that the Division encourage the consolidation of treatment works whenever feasible with consideration of such issues as water conservation, water rights utilization, stream flow, water quality, or economics. In reviewing site applications, the Authority will consider whether applicant has met the requirements of Regulation 22 with respect to the consolidation of treatment works. The Authority may also consider, at its discretion, other requirements set forth in Regulation 22.

SITE APPLICATION INITIAL REVIEW FINDINGS

Our initial review findings on the Application are as follows:

1. Phosphorus Wasteload Allocation:

   A phosphorus wasteload allocation was not considered because the proposed aerobic digestion system improvements will not result in a change to the current phosphorus allocation for Perry Park Water and Sanitation District. No change in phosphorus wasteload allocation is requested or expected with the proposed aerobic digestion system improvements.

2. Phosphorus Concentration Limit:

   The PPWSD Waucondah WWTF is currently permitted by the Colorado Department of Public Health and Environment (CDPHE) to operate the WWTP under the Colorado Discharge Permit System (CDPS), Permit CO-0022551. This permit was reissued in 2012 and has been administratively extended since the expiration on June 30, 2017. The effluent limitation for phosphorus as a 30-day average is 1 mg/L. From January 2007 through January 2012, the reported average effluent phosphorus concentration was 0.26 mg/L, with a minimum of 0.02 mg/L and a maximum of 0.83 mg/L.

3. Emergency Response Criteria:

   a. The Application includes the replacement of the existing emergency back-up power generator.

   b. The Application identifies potential spill causes and includes the necessary systems to minimize the risk of such overflows.

   c. The Application addresses the operation and maintenance practices or engineering features to address and prevent sanitary sewer overflows.

4. Consolidation of Treatment Works:

   The consolidation of treatment works was not considered because this site application is for improvements at an existing wastewater treatment facility.

CONCLUSIONS AND RECOMMENDATIONS

The proposed site application meets the Authority's Review Criteria for Site Location and Design Approvals. It is recommended that the Authority recommend approval of the site application to the Division.