



STATE OF TENNESSEE
DEPARTMENT OF ENVIRONMENT AND CONSERVATION
DIVISION OF WATER RESOURCES
William R. Snodgrass - Tennessee Tower
312 Rosa L. Parks Avenue, 11th Floor
Nashville, TN 37243-1102

PROJECT NAME: Bethesda Road

COUNTY: Williamson

DATE REQUESTED: 5/4/21

DATE HELD: 6/7/21

MEETING LOCATION: Teams

MEETING TIME: 10:00am

PERMIT: SOP-20016

WPN: 21.0452

PARTICIPANTS/REPRESENTING: (checklist ITEM I.A)

Aqua Green Utilities:

Dart Kendall – dart@aquagreenutility.com

TDEC:

Anastasia Sharp, EI – anastasia.sharp@tn.gov

Bob O’Dette, PE - robert.Odette@tn.gov

Bryan Pope – bryan.pope@tn.gov

Liz Campbell – liz.campbell@tn.gov

PROJECT BACKGROUND AND PURPOSE: (checklist ITEM B)

The proposed project is for the expansion of the previously approved Bethesda Road Treatment Facility. The facility was originally designed to treat residential effluent from a 49 lot subdivision. This project proposes to add a recreation center for an additional 18,400 gpd, and total design flow of 33,100 gpd. The original treatment was comprised of a recirculating media filter, UV disinfection, and drip irrigation. In consideration of the potential for weekend flow surges, the new design adds a 50,000 gallon EQ tank as well as an additional media filter and supplemental drip irrigation areas. Aqua Green Utility is the owner and operator of the facility.

SUMMARY OF PRELIMINARY ENGINEERING REPORT CONSIDERATIONS (checklist ITEMS C, D, E):

The estimated design flow for the recreation center is based on flow data from a similar facility. The project design must adhere to the Division’s Design Criteria. Soil map with a drip zone overlay must be included. Plans review fee will be relative to a modification for engineering report, plans, and collection system review associated fees found on Form CN-1457.

SUMMARY OF RECEIVING WATERS OR SITE SUITABILITY: (checklist ITEM F)

The soils information has been reviewed by the division. Based on the soils report, pit #14 does not meet the criteria, and the division would recommend loading pits 10, 11, 17, and 18 at 0.1 gpd/ft². However, after looking at the drip zones overlay, it is clear the design has left those areas out. Additionally, the county requires 100% duplicate area for potential failures/repairs.

SUMMARY OF ANTICIPATED PERMITTING NEEDS: (checklist ITEM G, I, J, K):

A Water Quality State Operating Permit modification application must be submitted, UIC will be re-authorized with draft permit issuance. Final permit issuance is contingent upon final plans approval.

DWR ORGANIZER: Liz Campbell

MINUTES PREPARED BY: Liz Campbell

DATE MINUTES PREPARED: 6/7/21



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Planning/Permitting Process

1. PRELIMINARY PROJECT DISCUSSION: The format will be decided based on the complexity of the project. Refer to Wastewater Project Number and Permit number in all correspondence.
2. SITE APPROVAL PHASE: Submit SOP Permit application (see instructions at: <https://www.tn.gov/environment/permit-permits/water-permits1/water-quality-state-operation-permit.html>) including:
 - a. A preliminary engineering report (alternatives evaluation in terms of life cycle costs and permit implications) should be submitted before negotiations for the permit can be completed.
 - b. A soils map prepared by a Licensed Professional Soil Scientist with pit profiles must be submitted in support of the project. The map must be field verified by TDEC staff.
 - c. Ensure treatment schematic on application matches engineering report and preliminary plans to be submitted in preliminary design phase (WW Design Criteria, Chapter 1, Appendices 1-D-2 and -3)
 - d. Agreement stipulating transfer of property or permanent easements for utility access for maintenance and operation of collection system and treatment system.
 - e. Application fee for decentralized systems: see 400-40-11-.02(3) at: <https://sharetn.gov.tnsosfiles.com/sos/rules/0400/0400-40/0400-40-11.20160508.pdf>
3. PRELIMINARY DESIGN PHASE: After agreement on draft permit, submit preliminary design submittal consisting of:
 - a. Engineering Report (or Basis of Design or Design Memorandum) in accordance with WW Design Criteria Chapter 1 Appendix 1-D-2; Review of the engineering report primarily focuses on due diligence taken in the characterization of the influent and the selection of an appropriate technology to meet the agreed upon discharge requirements given the influent characterization. Life cycle cost estimates should be upgraded; previously considered alternatives should be omitted or will be disregarded at this point. Treatment processes outside the Design Criteria parameters must be justified with preferably actual data on similar installations. Performance should be examined over the realistic range of influent values.
 - b. Preliminary Plans in accordance with WW Design Criteria Chapter 1 Appendix 1-D-3. Review of the preliminary plans focuses on the process in accordance with the checklists. Preliminary plans may be attachments or figures in the engineering report.
4. FINAL DESIGN PHASE: Upon completion successful completion of the public comment period of the permit and approval of the engineering report and the preliminary plans, the final design phase is authorized. The final CD's should consist of:
 - a. Final Plans and Specifications in accordance with WW Design Criteria Chapter 1 Appendix 1-D-4. Note that the primary review emphasis is on those aspects not previously evaluated during the PRELIMINARY DESIGN PHASE: Maintainability, sustainability, operability and flexibility (including the visibility of process parameters to support operator optimization), expandability, and safety.
 - b. Note procurement documentation in the project manual/specifications is generally reviewed for functionality and does not duplicate review procurement requirements, policies, or ordinances of funding agencies or owning public entities.



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- c. Proof of ownership/permanent easements must be provided prior to transmission of wastewater or acceptance of wastewater at a new facility for treatment and disposal.
- d. Note Rules authorize and require the Division to specify the format and content of the submittals. Current versions of the Rules and Design Criteria specify paper submittals. The Division is moving towards accepting and prefers digital submissions. Plans should be able to be legible if printed in 11x17 paper format; documents should be word/phrase searchable. PDF versions will be digitally stamped approved on cover sheets and indices and when reproduced will fulfill the requirements for on-site construction monitoring. A paper copy (red-lined plans) of the contract documents should also be on site to record field changes to ensure an accurate record drawing set can be provided.

5. PERMITTING PHASE

- a. Prior to commencing operation, privately-owned public utilities must provide financial security to the Public Utility Commission to comply with TCA 69-3-122. Issuance of a Certificate of Convenience and Necessity (CCN) by the Public Utility Commission must occur prior to the startup of the facility.
- b. Final plans approval and issuance of the final permit will occur once the financial security provisions have been applied for.

6. CONSTRUCTION PHASE

- a. Notify location environmental field office (EFO) & Nashville Central Office upon:
 - i. Start of construction
 - ii. Start up, final inspection, commissioning
- b. Submit record or "as-built" drawings" if necessary