

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

Charlie Naile
President
Tara Cambridge Estates Wastewater Facility
2038 Wesley Chapel Road
Farmington, MO 63640

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the Department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the Department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

June 11, 2021
Effective Date


Edward B. Galbraith, Director, Division of Environmental Quality

June 10, 2023
Expiration Date


Chris Wieberg, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

The project includes the construction of a new membrane bioreactor treatment system to serve six single family homes in Linn Creek, Camden County. The new treatment system will include one (1) 1,000 gallon septic tank, one (1) 500 gallon septic tank with effluent filter, one (1) flow splitter box, two (2) 1,500 gallon tanks each housing a BioBarrier® 1.0 membrane bioreactor unit with high water alarm, and equipment necessary for chemical addition to remove phosphorus.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

II. COST ANALYSIS FOR COMPLIANCE

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a “finding of affordability” on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The Department is not required to complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be consistent with plans and specifications signed and sealed by Beverly (Shelly) Hall, P.E. with LO Environmental, LLC and as described in this permit.
3. The Department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).

4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the Department's Southwest Regional Office per 10 CSR 20-7.015(9)(G).
5. The wastewater treatment facility shall be located at least fifty feet (50') from any dwelling or establishment per 10 CSR 20-8.140(2)(C)2.
6. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation per 10 CSR 20-8.140(2)(B). The minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300') per 10 CSR 20-8.140(2)(C)1.
7. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of 1 acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the Department's ePermitting system available online at dnr.mo.gov/env/wpp/epermit/help.htm. See dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.
8. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the Department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's Water Protection Program at 573-751-1300 for more information. See dnr.mo.gov/env/wpp/401/ for more information.
9. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
 - Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation. 10 CSR 20-8.140 (2) (B)
 - Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300'). 10 CSR 20-8.140 (2) (C) 1.
 - No treatment unit with a capacity of twenty-two thousand five hundred gallons per day (22,500 gpd) or less shall be located closer than the minimum distance of 200' to a neighboring residence and 50' to property line for lagoons; 200' to a neighboring residence for open recirculating media filters following primary treatment; and 50' to

- a neighboring residence for all other discharging facilities. See 10 CSR 20-2.010(68) for the definition of a residence. 10 CSR 20-8.140 (2) (C) 2
- Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D)
 - The outfall shall be constructed and protected against the effects of flood water, ice, or other hazards as to reasonably ensure its structural stability and freedom from stoppage. 10 CSR 20-8.140 (6) (A)
 - All sampling points shall be designed so that a representative and discrete twenty-four (24) hour automatic composite sample or grab sample of the effluent discharge can be obtained at a point after the final treatment process and before discharge to or mixing with the receiving waters. 10 CSR 20-8.140 (6) (B)
 - All outfalls shall be posted with a permanent sign indicating the outfall number (i.e., Outfall #001). 10 CSR 20-8.140 (6) (C)
 - All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140 (7) (A) 1.
 - Disinfection and dechlorination, when used, shall be provided during all power outages. 10 CSR 20-8.140 (7) (A) 2.
 - Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 *National Electric Code (NEC)* (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140 (7) (B)
 - An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140 (7) (C)
 - No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140 (7) (D) 1.
 - Hot water for any direct connections shall not be taken directly from a boiler used for supplying hot water to a digester heating unit or heat exchanger. 10 CSR 20-8.140 (7) (D) 2.
 - Where a potable water supply is to be used for any purpose in a wastewater treatment facility other than direct connections, a break tank, pressure pump, and pressure tank or a reduced pressure backflow preventer consistent with the department's Public Drinking Water Branch shall be provided. 10 CSR 20-8.140 (7) (D) 3. A.
 - For indirect connections, a sign shall be permanently posted at every hose bib, faucet, hydrant, or sill cock located on the water system beyond the break tank or backflow preventer to indicate that the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 3. B.
 - Where a separate non-potable water supply is to be provided, a break tank will not be necessary, but all system outlets shall be posted with a permanent sign indicating the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 4.
 - A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)

- Effluent twenty-four (24) hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140 (7) (F)
- Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility:
 - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140 (8) (A)
 - Gratings over appropriate areas of treatment units where access for maintenance is necessary; 10 CSR 20-8.140 (8) (B)
 - First aid equipment; 10 CSR 20-8.140 (8) (C)
 - Posted “No Smoking” signs in hazardous areas; 10 CSR 20-8.140 (8) (D)
 - Appropriate personal protective equipment (PPE); 10 CSR 20-8.140 (8) (E)
 - Portable blower and hose sufficient to ventilate accessed confined spaces; 10 CSR 20-8.140 (8) (F)
 - 10 CSR 20-8.140 (8) (G) Portable lighting equipment complying with NEC requirements. See subsection (7)(B) of this rule;
 - 10 CSR 20-8.140 (8) (H) Gas detectors listed and labeled for use in NEC Class I, Division 1, Group D locations. See subsection (7)(B) of this rule;
 - Appropriately-placed warning signs for slippery areas, non-potable water fixtures (see subparagraph (7)(D)3.B. of this rule), low head clearance areas, open service manholes, hazardous chemical storage areas, flammable fuel storage areas, high noise areas, etc.; 10 CSR 20-8.140 (8) (I)
 - Ventilation shall include the following:
 - Isolate all pumping stations and wastewater treatment components installed in a building where other equipment or offices are located from the rest of the building by an air-tight partition, provide separate outside entrances, and provide separate and independent fresh air supply; 10 CSR 20-8.140 (8) (J) 1.
 - Force fresh air into enclosed screening device areas or open pits more than four feet (4') deep. 10 CSR 20-8.140 (8) (J) 2.
 - Dampers are not to be used on exhaust or fresh air ducts. Avoid the use of fine screens or other obstructions on exhaust or fresh air ducts to prevent clogging; 10 CSR 20-8.140 (8) (J) 3.
 - Where continuous ventilation is needed (e.g., housed facilities), provide at least twelve (12) complete air changes per hour. Where continuous ventilation would cause excessive heat loss, provide intermittent ventilation of at least thirty (30) complete air changes per hour when facility personnel enter the area. Base air change demands on one hundred percent (100%) fresh air; 10 CSR 20-8.140 (8) (J) 4.
 - Electrical controls. Mark and conveniently locate switches for operation of ventilation equipment outside of the wet well or building. Interconnect all intermittently operated ventilation equipment with the respective wet well, dry well, or building lighting system. The manual lighting/ventilation switch is expected to override the automatic controls. For a two (2) speed ventilation system with automatic switch over where gas detection equipment is installed, increase the ventilation rate automatically in

- response to the detection of hazardous concentrations of gases or vapors; 10 CSR 20-8.140 (8) (J) 5.
- Fabricate the fan wheel from non-sparking material. Provide automatic heating and dehumidification equipment in all dry wells and buildings. 10 CSR 20-8.140 (8) (J) 6.
- Explosion-proof electrical equipment, non-sparking tools, gas detectors, and similar devices, in work areas where hazardous conditions may exist, such as digester vaults and other locations where potentially explosive atmospheres of flammable gas or vapor with air may accumulate. 10 CSR 20-8.140 (8) (K)
- Provisions for local lockout/tagout on stop motor controls and other devices; 10 CSR 20-8.140 (8) (L)
- Provisions for an arc flash hazard analysis and determination of the flash protection boundary distance and type of PPE to reduce exposure to major electrical hazards shall be in accordance with NFPA 70E *Standard for Electrical Safety in the Workplace* (2018 Edition), as approved and published August 21, 2017. 10 CSR 20-8.140 (8) (M)
- All wastewater treatment facilities must have a screening device, comminutor, or septic tank for the purpose of removing debris and nuisance materials from the influent wastewater. 10 CSR 20-8.150 (2)
- A septic tank must have a minimum capacity of at least one thousand (1,000) gallons. 10 CSR 20-8.180 (2) (A)
- The septic tank shall be baffled. 10 CSR 20-8.180 (2) (B)
- Membrane Bioreactor preliminary treatment systems shall be consistent with the membrane manufacturer recommendations; 10 CSR 20-8.180 (7) (B) 1.
- Grit removal facilities are required for wastewater treatment facilities that utilize membrane bioreactors for secondary treatment. 10 CSR 20-8.150 (6) and 10 CSR 20-8.180 (7) (B) 2.
- Membrane Bioreactors shall provide oil and grease removal when the levels in the influent may cause damage to the membranes; 10 CSR 20-8.180 (7) (B) 3.
- Membrane Bioreactors shall provide a fine screen and high water alarm, designed to treat peak hourly flow. Coarse screens followed by fine screens may be used in larger facilities to minimize the complications of fine screening; and 10 CSR 20-8.180 (7) (B) 4.
- Membrane Bioreactors preliminary treatment shall comply with 10 CSR 20-8.150(4)(B) for reliability. 10 CSR 20-8.180 (7) (B) 5.
- The Membrane Bioreactor's aeration blowers must provide adequate air for membrane scour and process demands. 10 CSR 20-8.180 (7) (C)
- Redundancy. The Membrane Bioreactor shall have at least one (1) of the following:
 - The ability to run in full programmable logic control (PLC) or standby power mode in case of an automatic control failure; 10 CSR 20-8.180 (7) (D) 1.
 - An operational battery backup PLC if manual control is not possible; 10 CSR 20-8.180 (7) (D) 2.
 - Sufficient standby power generating capabilities to provide continuous flow through the membranes during a power outage (e.g., preliminary screening, process aeration, recycle/RAS/permeate pumps, air scour, vacuum pumps) or an adequate method to handle flow for an indefinite period (e.g., private control of influent combined with contingency methods). 10 CSR 20-8.180 (7) (D) 3.

- Operations and Maintenance. The MBR design shall—
 - Include provisions to monitor membrane integrity; 10 CSR 20-8.180 (7) (E) 1.
 - Provide on-line continuous turbidity monitoring of filtrate or an equivalent for operational control and indirect membrane integrity monitoring for a treatment plant with design average flow greater than or equal to one hundred thousand gallons per day (100,000 gpd); 10 CSR 20-8.180 (7) (E) 2. and
 - Include provisions to remove membrane cassette for cleaning considering the membrane cassette wet weight plus additional weight of the solids accumulated on the membranes. 10 CSR 20-8.180 (7) (E) 3.

10. Upon completion of construction:

- A. The Tara Cambridge Estates Wastewater Facility will become the continuing authority for operation and maintenance of these facilities;
- B. Submit an electronic copy of the as built if the project was not constructed in accordance with previously submitted plans and specifications; and
- C. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N) and submit a Form B - Application for an Operating Permit for Domestic or Municipal Wastewater ($\leq 100,000$ gallons per day) and fee to the Engineering Section of the Water Protection Program 60 days prior to operation. Identify that the application is for a General permit for Non-POTW's discharging $\leq 50,000$ gpd, MOGD.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The purpose of this project is to construct a new wastewater treatment system to serve the Tara Cambridge Estates community and replace the failing onsite septic system.

2. FACILITY DESCRIPTION

The Tara Cambridge WWTF is a new facility located near 469/479 Winterwood Loop, Linn Creek, in Camden County, Missouri. The facility will serve a small neighborhood that consists of six single-family homes used primarily during the recreational season. The facility has a design average flow of 2,000 gpd and serves a hydraulic population equivalent of approximately 26 people. The wastewater treatment system will include two pretreatment septic tanks, two BioBarrier® membrane bioreactor units, and chemical addition for phosphorus removal. This new treatment system will replace the failing onsite septic system that currently serves the neighborhood.

3. COMPLIANCE PARAMETERS

The proposed project is required to meet the Final Effluent Limitations and Monitoring Requirements of MOGD00562 Table E-1 and Table E-2 with an expiration date of June 30, 2024.

The limits following the completion of construction will be applicable to the facility:

Parameter	Units	Monthly Average Limit
Biochemical Oxygen Demand ₅	mg/L	10
Total Suspended Solids	mg/L	15
Ammonia as N-summer	mg/L	1.4
Ammonia as N-winter	mg/L	2.9
pH	SU	6.5-9.0
Total Residual Chlorine	µg/L	8 (< 130 ML)
<i>E. coli</i>	#/100mL	126
Dissolved Oxygen	mg/L	*
Total Phosphorus	mg/L	0.5
Aluminum, Total Recoverable	µg/L	373.8
Iron, Total Recoverable	µg/L	818.8

* Monitoring requirement only

4. ANTIDEGRADATION

The Department has reviewed the antidegradation report for this facility and issued the Water Quality and Antidegradation Review: Department's Alternatives Analysis for Domestic Wastewater Facilities with Design Flow Less Than 50,000 Gallons per Day dated January 2021, due to the new wastewater treatment facility discharge.

5. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

- Components are designed for a Population Equivalent of 26 with a hydraulic loading of 2,000 gallons per day (gpd) and an organic loading of 4.4 lbs BOD₅ per day to the system.
- Septic Tanks – A septic tank provides passive primary treatment as the settleable solids in raw wastewater settle onto the bottom of the tank. Raw wastewater will flow by gravity to the 1,000 gallon one-compartment septic tank. The septic tank is 127.0 in x 52.2 in x 54.7 in with a water level depth of 44.0 in. When the water level reaches a certain height, the wastewater flows into the second 500 gallon one-compartment septic tank. The septic tank is 64.9 in x 61.7 in x 54.6 in with a water level depth of 44.0 in. A Polylok PL-122 Filter or approved equivalent with 1/16-in filtration slots and alarm will be installed on the discharge end of the 500 gallon septic tank. Wastewater will flow by gravity to a flow splitter box and the Membrane Bioreactor units. Settled solids in the septic tanks shall be removed by a contract hauler when solids reach 30% of the tank capacity.

- Membrane Bioreactor (MBR) – The MBR system is by BioMicrobics. The system will consist of two (2) BioBarrier® 1.0 MBR units in parallel, each installed in a 1,500 gallon tank. Each MBR unit is capable of treating up to 1,000 gpd.
 - The membrane is a flat plate membrane utilizing a combination of ultrafiltration and microfiltration with a pore size of <0.04 microns. The design flux rate through the membranes at peak flow is 4.55 gallons/ft²/day (7.74 lmh) at peak flow with a maximum operating flux of 8.82 gallons/ft²/day (15 lmh). The surface area of the membranes is 14 m². The minimum filtration rate through the membranes is 0.92 gpm. The minimum design SRT is 30 days. The maximum MLSS is 10,000 mg/L. The maximum F/M ratio at design flow 0.15. Total air supplied through the membrane is 10 scfm which is greater than the required 6.4 scfm at peak flow.
 - Disinfection is not proposed for this system because it utilizes ultrafiltration. The BioMicrobics system has been tested by National Science Foundation (NSF) and found to have an overall fecal coliform from 1.0 cfu/100 mL to 1.6 cfu/100 mL. In test done under the NSF Standard 350, the BioBarrier had a geometric average *E. coli* of 1.3 MPN/100 mL.
 - The two tanks provide approximately 24 hours of emergency storage above the high water level. A high water alarm with auto-dialer and battery backup will contact a contract septic hauler in the event emergency pumping is needed (see Appendix – Septic Pumping Service Agreement).
- Chemical Addition for Phosphorus Removal – A peristaltic pump and tank system will be installed to dose aluminum sulfate (alum) to the 500 gallon septic tank to provide additional phosphorus removal. The necessary dosing rate will be determined after analyzing phosphorus levels in the treatment facility effluent. The pump and tank system will be stored in a locked watertight housing near the treatment facility.

6. OPERATING PERMIT

After completion of construction project submit: statement of work completed, as-built if the project was not constructed in accordance with previously submitted plans and specifications, and ensure that Application Form B, and fee has been submitted. Missouri State Operating Permit, General Permit MOGD00562, will be issued after receipt of the above documents.

V. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

Ellen Modglin, E.I.
Engineering Section
Ellen.Modglin@dnr.mo.gov

Cailie Carlile, P.E.
Engineering Section
Cailie.Carlile@dnr.mo.gov

Appendix – Septic Pumping Service Agreement

SEPTIC PUMPING SERVICE AGREEMENT

Name Tara Cambridge Estates Address between 469 & 479 Winterwood Loop, Linn Creek

THIS AGREEMENT, entered into by and between BULLOCK SEPTIC, hereinafter referred to as "Contractor", and TARA CAMBRIDGE ESTATES WASTEWATER FACILITY hereinafter referred to as "Homeowner".

WHEREAS, Homeowner desires and is required to retain a contract septic hauler; and

WHEREAS, the Contractor desires to provide sewage treatment system pumping services to Homeowner as necessary and in accordance with the terms and conditions outlined herein.

NOW THEREFORE, in consideration of the mutual promises contained herein, Parties do hereby agree as follows:

1. **TERM.** The term of this Agreement shall be until it is terminated by either party for cause.
2. **FREQUENCY OF PUMPING.** Homeowner agrees that he/she shall not allow the tank to overflow or discharge in any manner. Contractor agrees to be available 7 days a week. Contractor and Homeowner agree that the tank shall be pumped in accordance with the following:
 - Within 24 hours of indication by tank alarm or lack of capacity

Contractor agrees to provide pumping services according to the regular pumping schedule or as needed to prevent discharge of untreated water. Homeowner shall compensate Contractor as agreed by the parties for pumping services rendered.

3. **INSPECTION.** Tanks will be inspected at the time of servicing for leaks below the operating depth and whether tank tops, riser joints, and connections leak through visual evidence of major defects.

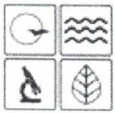
4. **REPORTING.** Homeowner and Contractor understand that failure to have the tank pumped as herein specified and discharge of any untreated water from the tank results, regardless of fault, it must be reported to MODNR as a bypass.

Bullock Septic Pumping LLC S Bullock
Contractor

Date 5-14-21

Charles Harte
Homeowner

Date 5/17/21



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
**APPLICATION FOR CONSTRUCTION PERMIT –
WASTEWATER TREATMENT FACILITY**

FOR DEPARTMENT USE ONLY

APP NO.

CP NO.

FEE RECEIVED

CHECK NO.

DATE RECEIVED

APPLICATION OVERVIEW

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. **All applicants must complete Part A.** Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. **Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.**

PART A – BASIC INFORMATION

1.0 APPLICATION INFORMATION (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project? ☐ YES ☒ N/A Funding Agency: _____ Project #: _____
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
☒ YES Date of Approval: 1/12/21 ☐ N/A
- 1.3 Has the department approved the proposed project's facility plan*?
☐ YES Date of Approval: _____ ☒ NO (If No, complete No. 1.4.)
- 1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan* for wastewater treatment facilities included with this application?
☒ YES ☐ NO ☐ Exempt because _____
- 1.5 Is a copy of the appropriate plans* and specifications* included with this application?
☒ YES Denote which form is submitted: ☒ Hard copy ☒ Electronic copy (See instructions.) ☐ NO
- 1.6 Is a summary of design* included with this application? ☒ YES ☐ NO
- 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?
☐ YES Date of submittal: _____
☒ Enclosed is the appropriate operating permit application and fee submittal. Denote which form: ☐ A ☒ B ☐ B2
☐ N/A: However, in the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice? ☐ YES ☐ NO
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? ☐ YES ☒ NO
- 1.9 Is the appropriate fee or JetPay confirmation included with this application? ☒ YES ☐ NO
See Section 7.0

* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Tara Cambridge WWTF

2.2 ESTIMATED PROJECT CONSTRUCTION COST

\$ 60,000

2.3 PROJECT DESCRIPTION

New 2,000 GPD BioBarrier wastewater treatment facility to replace existing failing onsite system.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION

contract hauler

2.5 DESIGN INFORMATION

- A. Current population: 10; Design population: 22
- B. Actual Flow: 1000 gpd; Design Average Flow: 2000 gpd;
Actual Peak Daily Flow: 2000 gpd; Design Maximum Daily Flow: 2000 gpd; Design Wet Weather Event: _____

2.6 ADDITIONAL INFORMATION

- A. Is a topographic map attached? ☒ YES ☐ NO
- B. Is a process flow diagram attached? ☒ YES ☐ NO

3.0 WASTEWATER TREATMENT FACILITY

NAME Tara Cambridge WWTF		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS clnaile@hotmail.com	
ADDRESS (PHYSICAL) 469/479 Winterwood Loop	CITY Linn Creek	STATE MO	ZIP CODE 65052	COUNTY Camden	
Wastewater Treatment Facility: Mo- (Outfall 1 Of 1)					
3.1 Legal Description: SE ¼, SW ¼, SW ¼, Sec. 25, T 39, R 17 (Use additional pages if construction of more than one outfall is proposed.)					
3.2 UTM Coordinates Easting (X): 522075 Northing (Y): 4215201 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)					
3.3 Name of receiving streams: Lake of the Ozarks					

4.0 PROJECT OWNER

NAME Tara Cambridge Estates Wastewater Facility		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS clnaile@hotmail.com	
ADDRESS 2038 WEsley Chapel Rd	CITY Farmington	STATE MO	ZIP CODE 63640		

5.0 CONTINUING AUTHORITY: A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements.

NAME same as owner		TELEPHONE NUMBER WITH AREA CODE		E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE		

5.1 A letter from the continuing authority, if different than the owner, is included with this application. ☐ YES ☐ NO ☒ N/A

5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.

A. Is a copy of the certificate of convenience and necessity included with this application? ☐ YES ☐ NO

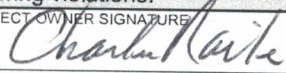
5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.

A. Is a copy of the as-filed restrictions and covenants included with this application? ☐ YES ☐ NOB. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? ☐ YES ☐ NOC. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? ☐ YES ☐ NOD. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? ☐ YES ☐ NO**6.0 ENGINEER**

ENGINEER NAME / COMPANY NAME Beverly (Shelly) Hall, PE/LO Environmental, LLC		TELEPHONE NUMBER WITH AREA CODE 573-964-6956		E-MAIL ADDRESS shelly@loenvironmental.com	
ADDRESS 1071 Industrial Drive	CITY Osage Beach	STATE MO	ZIP CODE 65065		

7.0 APPLICATION FEE☐ CHECK NUMBER☒ JETPAY CONFIRMATION NUMBER

8.0 PROJECT OWNER: I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PROJECT OWNER SIGNATURE 		DATE 3/5/21	
PRINTED NAME Charlie Naile		E-MAIL ADDRESS clnaile@hotmail.com	
TITLE OR CORPORATE POSITION PRESIDENT		TELEPHONE NUMBER WITH AREA CODE 573-450-2135	

Mail completed copy to:
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
P.O. BOX 176
JEFFERSON CITY, MO 65102-0176

END OF PART A.**REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.**