

**STATE OF MISSOURI**  
**DEPARTMENT OF NATURAL RESOURCES**  
**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

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

Franklin County Public Water Supply District No. 1  
FCPWS No. 1 – Twin Lakes WWTP  
0.13 miles SW of the intersection of Twin Lakes Dr., and Mark Twain Loop  
Union, MO 63084

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.

December 16, 2024  
Effective Date

December 15, 2026  
Expiration Date

  
\_\_\_\_\_  
John Hoke, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

Construction of an Ultraviolet (UV) disinfection system designed to treat the peak hourly flow of 100 gpm and to meet final effluent limits for *E. coli*. The UV system to be installed is an Enaqua Ultraviolet M4 unit with a capacity of treatment of up to 145,000 gallons per day (GPD) of wastewater. The disinfection system consists of up to two similar AFP tubes, each with up to four low pressure high intensity lamp, arranged in parallel while delivering a minimum UV intensity of 30 mJ/cm<sup>2</sup> with an expected transmissivity of 65.0 percent or greater at 254 nm.

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. The facility's design average flow will remain at 36,000 gpd.

### **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 determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

### **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 William R. Johanning, P.E. from Cochran Engineering 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 Saint Louis Regional Office per 10 CSR 20-7.015(9)(G).
5. A United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Department of the Army permit and a Section 401 Water Quality Certification issued by the department may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied or notification is provided that no Section 404 permit is required by the USACE. You must contact your local USACE district since they determine what waters are jurisdictional and which permitting requirements may apply. You may call the department's Water Protection Program, Operating Permits Section at 573-522-4502 for more information. See <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality> for more information.
6. 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 100-year flood elevation. 10 CSR 20-8.140(2)(B). 10 CSR 20- 8.130 (2) (A).
  - Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D). 10 CSR 20-8.130 (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 300 feet. 10 CSR 20-8.140 (2) (C) 1.
  - All sampling points shall be designed so that a representative and discrete 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).
  - Disinfection, when used, shall be provided during all power outages. 10 CSR 20-8.140 (7) (A) 2.

- 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.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E).
- 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). o 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).
  - 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).
- Emergency Power. Disinfection processes, when used, shall be provided during all power outages. 10 CSR 20-8.190 (2) (A).
- The UV dosage shall be based on the design peak hourly flow, maximum rate of pumpage, or peak batch flow. 10 CSR 20-8.190 (5) (A) 1.
- The UV system shall deliver the target dosage based on equipment derating factors and, if needed, have the UV equipment manufacturer verify that the scale up or scale down factor utilized in the design is appropriate for the specific application under consideration. 10 CSR 20-8.190 (5) (A) 3.
- The UV system shall deliver a minimum UV dosage of  $30,000 \mu\text{W} \cdot \text{s}/\text{cm}^2$  (microwatt seconds per centimeters squared). 10 CSR 20-8.190 (5) (A) 4.
- Closed channel UV systems. The combination of the total number of closed channels shall be capable of treating the design peak hourly flow, maximum rate of pumpage, or peak batch flow. 10 CSR 20-8.190 (5) (B) 2.
- The UV system must continuously monitor and display at the UV system control panel the following minimum conditions:
  - The relative intensity of each bank or closed channel system; 10 CSR 20-8.190 (5) (C) 1. A.
  - The operational status and condition of each bank or closed channel system; 10 CSR 20-8.190 (5) (C) 1. B.
  - The ON/OFF status of each lamp in the system; 10 CSR 20-8.190 (5) (C) 1. C. and,
  - The total number of operating hours of each bank or each closed channel system. 10 CSR 20-8.190 (5) (C) 1. D.
  - The UV system shall include an alarm system. Alarm systems shall comply with 10 CSR 20-8.140(7)(C). 10 CSR 20-8.190 (5) (C) 2.

7. Upon completion of construction:

- A. Franklin County Public Water Supply District No.1 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 Statement of Work Completed form to the department in accordance with 10 CSR 20-6.010(5)(N) (<https://dnr.mo.gov/document-search/wastewater-construction-statement-work-completed-mo-780-2155>) and request the modified operating permit be issued. The modification fee was paid.

#### IV. REVIEW SUMMARY

##### 1. CONSTRUCTION PURPOSE

*E. coli* limitations are included in operating permit MO-0114189 effective September 1, 2020. *E. coli* limits are only effective during the recreation season from April 1 through October 31. UV disinfection will enable the facility to meet the *E. coli* limitations.

##### 2. FACILITY DESCRIPTION

The FCPWSO No. 1 - Twin Lakes WWTP is located 0.13 miles Southwest of the intersection of Twin Lakes Drive and Mark Twain Loop in the City of Union, MO 63084. The existing facility treats domestic wastewater discharges from neighboring homes. The facility is an extended aeration plant, has an average design flow of 36,000 GPD, a peak hourly flow of 6,000 GPH and a design population of 370, with an actual flow of approximately 21,824 GPD. The number of connections is 89. Sludge is retained in the facility until it can be land applied by contract hauler. Design sludge production is 6.7 tons/year. The receiving stream of effluent for this facility is a tributary of Flat Creek. The addition of a UV treatment system will assist with compliance of *E. coli* effluent limitations.

##### 3. COMPLIANCE PARAMETERS

The proposed project is required to meet final effluent limits for *E. coli* as listed below and as established in table 2 from current Operating Permit MO-0114189. The limit following the completing of construction will be applicable to the facility:

Parameter	Units	Monthly average limit
<i>E. coli</i>	#/100mL	206

#### **4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA**

##### **Existing major components that will remain in use include the following:**

- Extended aeration plant system consists of a bar screen, an aeration basin, a clarifier, and a sludge digester, having a design flow of 36,000 GPD. Actual flow is 21,824 GPD. Effluent is discharged to a tributary of Flat Creek.
- Power Outage – In the event of a power outage, a portable generator will be used for emergency power. In the past, the district has coordinated with City of Union and City of Washington for temporary use of their emergency generators. Typical response time in outages, and to have power restored onsite is 30 to 45 minutes.

##### **Construction will cover the following items:**

- Disinfection – Disinfection is the process of removal, deactivation, or killing of pathogenic microorganisms.

Ultraviolet (UV) – A non-contact gravity flow, low pressure, high intensity UV disinfection system capable of treating a peak flow of 100 gallons per minute, 145,000 GPD while delivering a minimum UV intensity of 30 mJ/cm<sup>2</sup> with an expected ultraviolet transmissivity of 65 percent or greater. The UV system consists of one Enaqua M4 UV unit. The Enaqua M4 unit will have 2 non-contact tubes with 8 lamps, in a 12 ft long by 5 ft wide chamber. The disinfected effluent will flow by gravity through the existing 8 inches outfall pipe and to Outfall No. 001. An 8-inch gate valve will allow for bypass of the UV disinfection system during the non-recreational season.

#### **5. OPERATING PERMIT**

Operating permit MO-0114189, was successfully public noticed from November 8, 2024, to December 9, 2024, with no comments received. Submit the Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(N) and request the operating permit modification be issued. With the CP application, an operating permit modification was submitted for public notice to reflect the change in the facility description of the operating permit. The operating permit application for a renewal will be due before the CP is expired. The modification action does not fulfill the renewal application obligation. A renewal application was filed on August 23, 2024, meeting the requirement to apply by January 1, 2025. If you have questions on completing the renewal application, please contact the NPDES permitting section at 573-522-4502 or [cleanwaterpermits@dnr.mo.gov](mailto:cleanwaterpermits@dnr.mo.gov).

This facility does not meet the requirements of the MOGD, issued on July 1, 2024, for the following reason: Publicly owned. This facility is not being converted to a general operating permit at this time, it will be evaluated at operating permit renewal to determine if it qualifies for a general permit.

## **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>

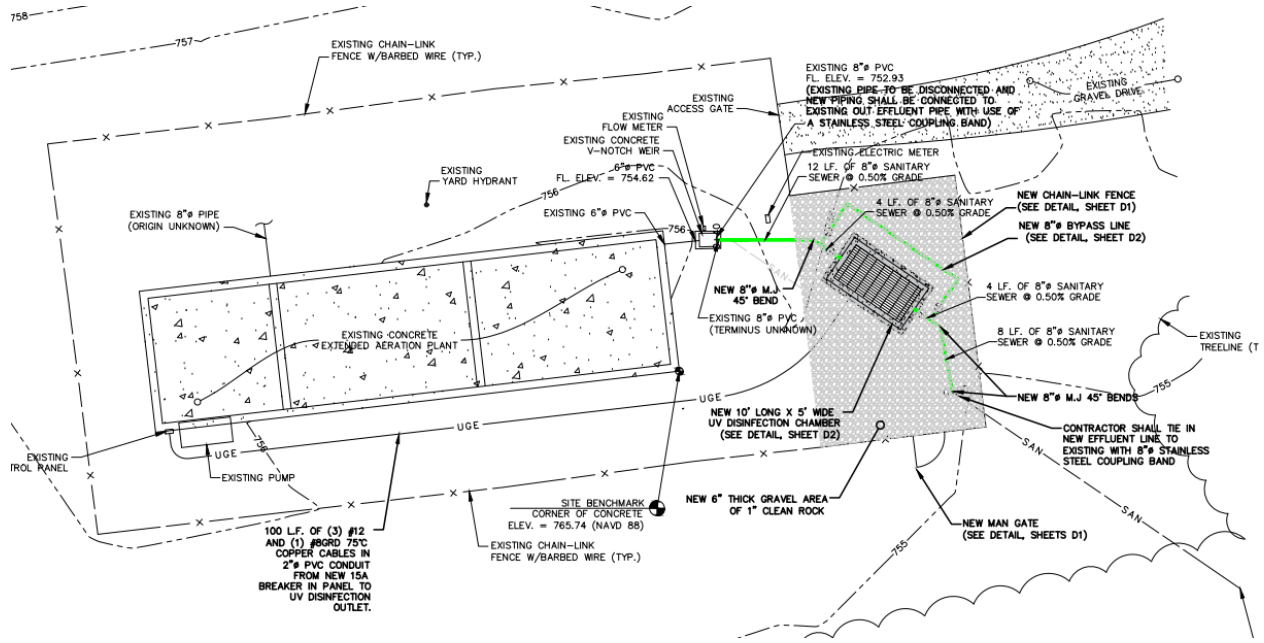
Francisco Cortalezzi, E.I.T.  
Engineering Section  
[francisco.cortalezzi@dnr.mo.gov](mailto:francisco.cortalezzi@dnr.mo.gov)

Chia-Wei Young, P.E.  
Engineering Section  
[chia-wei.Young@dnr.mo.gov](mailto:chia-wei.Young@dnr.mo.gov)



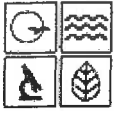
## APPENDICES

### Proposed Flow Diagram for Twin Lakes WWTF



### Current Aerial View for Twin Lakes WWTF





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 <b>1,000</b>	CHECK NO. <b>47532</b>
DATE RECEIVED <b>8-28-24 - MH</b>	

**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: FC ARPA Project #: 2023-167
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
 YES Date of Approval: \_\_\_\_\_  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 Not needed. Only adding disinfection treatment to facility.
- 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 <u>Twin Lakes WWTF Disinfection</u>	2.2 ESTIMATED PROJECT CONSTRUCTION COST <u>\$ 96,600</u>
--	---

2.3 PROJECT DESCRIPTION  
 Furnish and install a complete closed channel, gravity flow, low pressure high intensity ultraviolet lamp (UV) Non-Contact(TM) disinfection system to provide required disinfection of plant effluent waters prior to ultimate plant discharge.


2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION  
Aerated Sludge Holding Tank; Sludge Removed by Contract Hauler

2.5 DESIGN INFORMATION  
 A. Current population: 393; Design population: 370  
 B. Actual Flow: 20,400 gpd; Design Average Flow: 36,000 gpd;  
 Actual Peak Daily Flow: \_\_\_\_\_ gpd; Design Maximum Daily Flow: \_\_\_\_\_ 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

RECEIVED

AUG 28 2024

3.0 WASTEWATER TREATMENT FACILITY			
NAME FCPWSD#1 - Twin Lakes WWTF		TELEPHONE NUMBER WITH AREA CODE 636-239-2808	E-MAIL ADDRESS tbaretich@alliancewater.com
ADDRESS (PHYSICAL) 0.13 Miles SW of Intersection of Twin Lakes Drive & Mark Twain Loop	CITY Union	STATE MO	ZIP CODE 63084 COUNTY Franklin
Wastewater Treatment Facility: Mo- 0114189 (Outfall 001 Of )			
3.1 Legal Description: _____ ¼, _____ ¼, _____ ¼, Sec. 19, T 43N, R 1W (Use additional pages if construction of more than one outfall is proposed.)			
3.2 UTM Coordinates Easting (X): 668741 Northing (Y): 4258028 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)			
3.3 Name of receiving streams: Tributary To Flat Creek			
4.0 PROJECT OWNER			
NAME Franklin County PWS No. 1		TELEPHONE NUMBER WITH AREA CODE 636-239-2808	E-MAIL ADDRESS tbaretich@alliancewater.com
ADDRESS 3021 Highway A, Suite 101	CITY Washington	STATE MO	ZIP CODE 63090
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 Franklin County PWS No. 1		TELEPHONE NUMBER WITH AREA CODE 636-239-2808	E-MAIL ADDRESS tbaretich@alliancewater.com
ADDRESS 3021 Highway A, Suite 101	CITY Washington	STATE MO	ZIP CODE 63090
5.1 A letter from the continuing authority, if different than the owner, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> NO			
B. 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? <input type="checkbox"/> YES <input type="checkbox"/> NO			
C. 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? <input type="checkbox"/> YES <input type="checkbox"/> NO			
D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO			
6.0 ENGINEER:			
ENGINEER NAME / COMPANY NAME William R. Johanning, P.E./Cochran		TELEPHONE NUMBER WITH AREA CODE 636-584-0540	E-MAIL ADDRESS rjohanning@cochraneng.com
ADDRESS 530A East Independence Drive	CITY Union	STATE MO	ZIP CODE 63084
7.0 APPLICATION FEE			
<input type="checkbox"/> CHECK NUMBER		<input type="checkbox"/> 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 			
PRINTED NAME Tony Baretich			DATE 8/14/2024
TITLE OR CORPORATE POSITION General Manager		TELEPHONE NUMBER WITH AREA CODE 636-239-2808	E-MAIL ADDRESS tbaretich@alliancewater.com
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.			

## INSTRUCTIONS FOR COMPLETING APPLICATION FOR CONSTRUCTION PERMIT – WASTEWATER TREATMENT FACILITIES

All blanks must be filled in when the application is submitted to the Missouri Department of Natural Resources. This includes the **required signature**.

**Note:** Use the form Application for Construction Permit – Sewer Extension, MO 780-1632, if only collection system component(s) are to be constructed.

A land disturbance permit is required if construction will result in the disturbance of one or more acres of land. A land disturbance permit is available through the department's ePermitting system at [dnr.mo.gov/env/wpp/epermit/help.htm](http://dnr.mo.gov/env/wpp/epermit/help.htm). A permit fee in accordance with 10 CSR 20-6.011 is required.

After receiving a complete application, the Department enters the application information into the Missouri Clean Water Information System. You may search for the status of a construction permit online at [dnr.mo.gov/mocwis\\_public/applicationInprocessSearch.do](http://dnr.mo.gov/mocwis_public/applicationInprocessSearch.do).

### Part A – Basic Application Information

- 1.0 If the answer to any of the questions in this section is no, this application may be considered incomplete and returned to the applicant.
- 1.1 Check the appropriate box. If the project is funded with federal or state monies, supply the funding agency name and project number.
- 1.2 Check the appropriate box. Provide the date of department approval for the antidegradation report. Include a copy of the approved *Water Quality and Antidegradation Review* with this application. Not every construction project may require an antidegradation review. For more information, guidance documents and forms concerning antidegradation visit [dnr.mo.gov/env/wpp/permits/antideg-implementation.htm](http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm).
- 1.3 Check the appropriate box and provide the date of department approval. Per 10 CSR 20-8.110(2), a facility plan must be submitted to the department prior to the submittal of a construction permit application. The department has developed a fact sheet to aid in the development of an approvable facility plan, Facility Plan Guidance for Wastewater Treatment Facilities, Fact Sheet--PUB2416.
- 1.4 Complete only if No. 1.3 is answered No. Check the appropriate box. Include the exemption reason from 10 CSR 20-6.010(4)(B).
- 1.5 Check the appropriate box. Provide a copy of the appropriate plans and specifications for department review when applying for a construction permit per 10 CSR 20-8.110 and 10 CSR 20-6.010. A Missouri registered professional engineering seal, signature and date is required on each sheet of the plans and the cover of the technical specifications. An electronic copy of the construction permit application and the information listed below in Portable Document Format (PDF) searchable format or department approved equivalent per 10 CSR 20-6.010(5)(G), along with one (1) paper copy for projects not seeking department funding or two (2) paper copies for projects seeking department funding under 10 CSR 20-4.
- 1.6 Check the appropriate box. A summary of design shall accompany the plans and specifications when applying for a construction permit per 10 CSR 20-6.010(5)(G) and 10 CSR 20-8.110(8). The department has developed a fact sheet to aid in the development of an acceptable summary of design. This document is available online at [dnr.mo.gov/pubs/pub2417.htm](http://dnr.mo.gov/pubs/pub2417.htm).
- 1.7 Check the appropriate box if an operating permit modification is needed. Include the applicable operating permit application. New outfalls, discharges, projects converting to land application, or a lagoon upgrade require an operating permit modification application. Contact the Department for clarification. Projects that may not need an operating permit modification check the N/A box and indicate whether you want to review the draft prior to public notice should the Department determine a modification is required. The Department can modify your operating permit without an application for projects that are adding chlorine disinfection, constructing to meet current operating permit limits, or constructing to meet limits in a schedule of compliance.
  - Form A is available online at [dnr.mo.gov/forms/780-1479-f.pdf](http://dnr.mo.gov/forms/780-1479-f.pdf).
  - Form B is available online at [dnr.mo.gov/forms/780-1512-f.pdf](http://dnr.mo.gov/forms/780-1512-f.pdf).
  - Form B2 is available online at [dnr.mo.gov/forms/780-1805-f.pdf](http://dnr.mo.gov/forms/780-1805-f.pdf).
- 1.8 Check the appropriate box. More information about the Compliance and Enforcement Water Protection Program is available online at [dnr.mo.gov/env/wpp/enf/index.html](http://dnr.mo.gov/env/wpp/enf/index.html).

- 1.9 Check the appropriate box. Include payment or payment confirmation for the fee with your application. See 10 CSR 20-6.011(2) and Wastewater Treatment Facility Permit Fees -- PUB2564.
- Note:** The department returns incomplete construction permit applications and related engineering documents and the application forfeits the fees. See 10 CSR 20-6.011(5)(A). The applicant forfeits the fees when the applicant withdraws construction applications. See 10 CSR 20-6.011(5)(B).
- 2.1 Provide the name of the proposed construction project.
- 2.2 Provide the estimated project construction cost. The estimated and final project construction cost will be useful to the department in conducting affordability analyses.
- 2.3 Briefly describe the construction project by providing the number and capacity of each new unit.
- 2.4 Briefly describe the method of sludge handling, use and disposal at the treatment facility.
- 2.5 Provide the project design information and when required in the units specified.
- A. Provide the current population and the design population to be served by the wastewater treatment facility.
- B. Provide the estimated design flow information in accordance with 10 CSR 20-8.110(3).
- 2.6 Provide the additional project information in accordance with 10 CSR 20-8.110(5).
- A. Attach a topographic map of the area extending at least one mile beyond the facility property boundaries. This map must show the outline of the facility and the following information. A topographic map is available online at [dnr.mo.gov/internetmapviewer](http://dnr.mo.gov/internetmapviewer) or from the Department of Natural Resources' Missouri Geological Survey in Rolla, Mo., at 573-368-2125. (Submittals of more than one map may be necessary to show the entire area.)
1. The area surrounding the wastewater treatment facility, including all unit processes.
  2. The major pipes or other structures through which wastewater enters the treatment facility and the pipes or other structures through which treated wastewater is discharged from the treatment facility. Include outfalls from bypass piping, if applicable.
  3. The actual point of discharge.
  4. Wells, springs, other surface water bodies and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment facility and 2) listed in public record or otherwise known to the applicant.
  5. Any areas where biosolids produced by the treatment facility are treated, stored, or disposed.
  6. If the treatment facility receives waste classified as hazardous under the Resource Conservation and Recovery Act, or RCRA, by truck, rail, or special pipe, show on the map where hazardous waste enters the treatment works and where it is treated, stored or disposed.
  7. Outline any wastewater land application sites.
- B. Provide a process flow diagram with the influent and effluent design average flow and peak flow capabilities. Also, depict all of the treatment facility components and the corresponding hydraulic capacities of each component. In addition, include all recycle flows in the diagram. If land application is used, depict all irrigation equipment and application sites.
- 3.0 Complete the Wastewater Treatment Facility information. Include the Missouri State Operation Permit number, outfall number, physical location, and other appropriate contact information.
- 3.1 Provide the project legal description. The department's mapping system is available online at [dnr.mo.gov/internetmapviewer](http://dnr.mo.gov/internetmapviewer).
- 3.2 A Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used and the displayed coordinates submitted. If access to a GPS receiver is not available, use a mapping system to approximate the coordinates.
- 3.3 Provide the name of the receiving stream(s) to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.
- 4.0 Complete Project Owner information. Include the legal name, address, phone number with area code and email address.
- 5.0 Complete Continuing Authority contact information. If same as the Project Owner, write "Same as above". 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. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit <https://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf>. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: <https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0>, unless the continuing

authority is an individual(s), government, or otherwise not required to register with the SoS. See 10 CSR 20-6.010(2) for the regulatory requirement regarding continuing authority.

- 5.1 Check the appropriate box. Include a letter signed by the continuing authority (if not same as the project owner) stating they will "accept, operate and maintain" the wastewater treatment facility after successful construction. If the continuing authority will not accept and agree to operate and maintain the wastewater treatment facility, this application will be considered incomplete.
- 5.2 Complete if the continuing authority is a Missouri Public Service Commission, or PSC, regulated entity. See 10 CSR 20-6.010(2)(B)3 for more information. This information is not necessary for existing wastewater treatment facilities currently permitted with a PSC entity as owner and continuing authority.
- 5.3 Complete if the continuing authority is a property owners association. See 10 CSR 20-6.010(2)(B)5 for more information. This information is not necessary for existing wastewater treatment facilities currently permitted with the property owners association as owner and continuing authority.
- 6.0 Complete Engineer contact information.
- 7.0 Check the appropriate box and include check or confirmation number. Applicants can pay fees online by credit card or eCheck through a system called JetPay.
- Per Section 37.001, RSMo, a transaction fee will be included. The transaction fee is paid to the third party vendor JetPay, not the Department of Natural Resources.
  - Be sure to select the correct fee type and corresponding URL to ensure your payment is applied appropriately. If you are unsure what type of fee to pay, please contact the Water Protection Program's Budget, Fees, and Grants Management Unit by phone at (573) 522-1485 for assistance.
  - Upon successful completion of your payment, JetPay provides a payment confirmation. Submit this form with a copy of the payment confirmation if requesting a new permit or a permit modification. For permit renewals of active permits, the Department will invoice fees annually in a separate request.
  - If you are unable to make your payment online, but want to pay with credit card, you may email your name, phone number, and invoice number, if applicable, [WPPFEES@dnr.mo.gov](mailto:WPPFEES@dnr.mo.gov). The Budget, Fees, and Grants Management Unit will contact you to assist with the credit card payment. **Please do not include your credit card information in the email.**
  - Applicants can find fee rates in 10 CSR 20-6.011 and Wastewater Treatment Facility Permit Fees -- PUB2564 (<https://dnr.mo.gov/pubs/pub2564.htm>).

WP 04 Construction Permits: <https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/592/>

- 8.0 The owner of the construction project must sign the application.

## Part B – Land Application

Complete Part B only if the proposed construction project includes land application of wastewater from a treatment facility.

- 8.0 Provide the applicable Facility Information land application information. Check the appropriate boxes.
- 9.0 Provide the applicable Storage Basins information. Check the appropriate boxes.
- Freeboard – The depth from the top of the berm to the emergency spillway. Minimum depth • is one foot.
  - Safety Volume – The depth to contain the 25-year, 24-hour storm event. Minimum depth is • one foot.
  - Maximum Operating Water Level – The water level at the bottom of the safety volume. • Minimum depth is two feet below the top of the berm.
  - Minimum Operating Water Level – The water level above the bottom of the lagoon basin for • seal protection. Minimum depth is two feet and may be greater when additional treatment volume is included.
  - Total Depth is from the top of the berm to the bottom of the lagoon basin including freeboard. •
- 10.0 Provide the applicable Land Application System information. Check the appropriate boxes.
- 10.7 Check the appropriate box. If the land application rate is based on a Nutrient Management Plan, or N and P, include the plan with this application for department review.

Mail the completed form and applicable fee to the department.

If there are any questions concerning this form, please contact the Department of Natural Resources, Water Protection Program at 800-361-4827 or 573-751-1300 or visit [dnr.mo.gov/env/wpp](http://dnr.mo.gov/env/wpp).