

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



**CONSTRUCTION PERMIT**

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

Warren County Council Against Domestic Violence  
Turning Point  
P.O. Box 426  
Warrenton, MO 63383

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.

July 24, 2019  
Effective Date

July 23, 2021  
Expiration Date

  
Edward B. Galbraith, Director, Division of Environmental Quality

  
Chris Wieberg, Director, Water Protection Program

## **CONSTRUCTION PERMIT**

### **I. CONSTRUCTION DESCRIPTION**

The proposed construction will include installation of a chlorine tablet feeder, baffled chlorine contact basin, and dechlorination tablet feeder after the existing recirculating sand filter.

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 Daniel Rahn with Engineering Surveys & Services 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 St. Louis Regional Office per 10 CSR 20-7.015(9)(G).
5. The wastewater treatment facility shall be located above the twenty-five (25)-year flood level.
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 one 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](http://dnr.mo.gov/env/wpp/epermit/help.htm). See [dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://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/](http://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.
  - Contact period for Chlorine Disinfection. A minimum contact period of fifteen (15) minutes at design peak hourly flow or maximum rate of pumpage shall be provided after thorough mixing. 10 CSR 20-8.190 (3) (A).
  - Solid dechlorination systems shall not be located in the chlorine contact tank. 10 CSR 20-8.190 (4) (B) 1.
  - Contact time. A minimum of thirty (30) seconds for mixing and contact time of dechlorination systems shall be provided at the design peak hourly flow or maximum rate of pumpage. 10 CSR 20-8.190 (4) (B) 2.

10. Upon completion of construction:

- A. Turning Point will become the continuing authority for operation and maintenance of these facilities;
- B. Submit an electronic copy of the as built's 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).

**IV. REVIEW SUMMARY**

**1. CONSTRUCTION PURPOSE**

The proposed project is designed to meet final permitted effluent limits for *E. coli* in operating permit MO-0126896. These limits became effective on August 1, 2017.

**2. FACILITY DESCRIPTION**

The existing treatment facility includes a septic tank, recirculating sand filter and sludge disposal by contract hauler. The proposed project will add a tablet chlorination unit, baffled chlorine contact chamber, and tablet dechlorination unit.

The Turning Point treatment facility is located at 1908 Old Highway 40, Warrenton, in Warren County, Missouri. The facility has a design average flow of 3,000 gpd and serves an organic population equivalent of approximately 52 people.

**3. COMPLIANCE PARAMETERS**

The proposed project is required to meet final effluent limits for *E. coli* of 1,030 #/100mL daily maximum and 206 #/100mL monthly average by August 1, 2017 as established in Operating Permit MO-0126896.

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

PARAMETER	UNITS	DAILY MAXIMUM LIMIT	MONTHLY AVERAGE LIMIT
Total Residual Chlorine	µg/L	<130	<130
<i>E. coli</i>	#/100mL	1,030	206
Dissolved Oxygen	mg/L	*	*

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

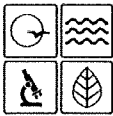
**Construction will cover the following items:**

- Disinfection – Disinfection is the process of removal, deactivation, or killing or pathogenic microorganisms.
  - Tablet Chlorinator – Installation of a tablet Norweco Bio-Dynamic®, Series 2000 Model XT chlorination chamber receiving clarified effluent prior to the chlorine contact tank. The tablet chlorinator shall be capable of treating a design flow of 3,000 gpd and a peak flow of 12,000 gpd. The system will dispense hypochlorite as the wastewater comes into contact with the tablets.
  - Chlorine Contact Tank – Installation of a pre-cast concrete tank approximately 82 inches x 82 inches x 22 in water depth with 5 end-around baffles allowing for a greater than 40:1 length to width ratio. This tank will allow for greater than 15 minute contact time during a peak flow of 12,000 gpd.
  - Tablet Dechlorinator – Installation of a tablet Norweco Bio-Dynamic®, Series 2000 Model XT dechlorination chamber receiving the chlorinated effluent and prior to Outfall No. 001. The tablet dechlorinator shall be capable of treating a design flow of 3,000 gpd and a peak flow of 12,000 gpd. The system will dispense sodium sulfite as the wastewater comes into contact with the tablets.

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

Operating permit MO-0126896 will require a modification to reflect the construction activities. The modified Turning Point, MO-0126896, will be public noticed to add total residual chlorine limits and dissolved oxygen monitoring concurrent with issuance of this construction permit. Submit the Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N).

Cailie Carlile, PE  
Engineering Section  
[cailie.carlile@dnr.mo.gov](mailto:cailie.carlile@dnr.mo.gov)



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
WATER PROTECTION PROGRAM

**APPLICATION FOR CONSTRUCTION PERMIT  
WASTEWATER FACILITY**

RECEIVED

JUN 19 2019

Water Protection Program

FOR DEPARTMENT USE ONLY	
APP NO. AP32828	CP NO. CP0002084
FEE RECEIVED \$1006.00	CHECK NO. 12029
DATE RECEIVED 6-19-19	

**APPLICATION OVERVIEW**

The Application for Construction Permit – Wastewater Facility form is for construction pertaining to domestic wastewater treatment facilities, agricultural facilities, and components thereof. This 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 Is this an application for an agricultural facility? ☐ YES (See instructions.) ☒ N/A
- 1.3 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?  
☐ YES Date of Approval: n/a \_\_\_\_\_
- 1.4 Has the department approved the proposed project's facility plan\*?  
☐ YES Date of Approval: \_\_\_\_\_ ☐ NO ☒ N/A (If Not Applicable, complete No. 1.5.)
- 1.5 [Complete only if answered Not Applicable on No. 1.4] Is a copy of the engineering report\* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?  
☐ YES ☒ NO
- 1.6 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
- 1.7 Is a summary of design\* included with this application? ☒ YES ☐ NO
- 1.8 Is a general operating permit applicable?  
☐ YES Submit the appropriate operating permit application to the Regional Office at least 60 days prior to operation.  
☒ NO Enclose the appropriate operating permit application and fee submittal. Denote which form: ☒ B ☐ B2
- 1.9 Is the facility currently under enforcement with the department or the Environmental Protection Agency? ☐ YES ☒ NO
- 1.10 Is the appropriate fee included with this application? ☒ YES ☐ NO (See instructions for appropriate fee.)

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

**2.0 PROJECT INFORMATION**

**2.1 NAME OF PROJECT**

Turning Point WWTP - Disinfection Improvements

**2.2 PROJECT DESCRIPTION**

Installation of a chlorination/dechlorination disinfection system to provide disinfection per the current operating permit.

**2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION**

On site sludge storage, contractor hauled

**2.4 DESIGN INFORMATION**

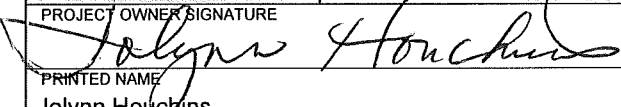
- A. Current population: \_\_\_\_\_; Design population: 52
- B. Actual Flow: 275 gpd; Design Average Flow: 3,000 gpd;  
Actual Peak Daily Flow: 1,100 gpd; Design Maximum Daily Flow: 3,000 gpd;  
Design Wet Weather Event: \_\_\_\_\_

**2.5 ADDITIONAL INFORMATION**

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

**2.6 ESTIMATED PROJECT CONSTRUCTION COST**

\$ 15,000.00

<b>3.0 WASTEWATER TREATMENT FACILITY</b>				
NAME Turning Point		TELEPHONE NUMBER WITH AREA CODE (636) 456-1186		EMAIL ADDRESS
ADDRESS (PHYSICAL) 1908 Old Highway 40	CITY Warrenton	STATE MO	ZIP CODE 63383	COUNTY Warren
Wastewater Treatment Facility: Mo- 0126896 (Outfall 1 Of 1 )				
3.1 Legal Description: SE ¼, SW ¼, SE ¼, Sec. 14 , T 48N , R 03W (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): 655022.08 E Northing (Y): 4299375.95 N For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: Tributary to Lost Creek				
<b>4.0 PROJECT OWNER</b>				
NAME Turning Point		TELEPHONE NUMBER WITH AREA CODE (636) 456-1186		EMAIL ADDRESS
ADDRESS PO Box 426	CITY Warrenton	STATE MO	ZIP CODE 63383	
5.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.				
NAME Same as above		TELEPHONE NUMBER WITH AREA CODE		EMAIL ADDRESS
ADDRESS Same as above	CITY	STATE	ZIP CODE	
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 checked="" 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 checked="" 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 checked="" 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 checked="" 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 checked="" type="checkbox"/> NO				
<b>6.0 ENGINEER</b>				
ENGINEER NAME / COMPANY NAME Daniel P. Rahn/ Engineering Surveys & Services		TELEPHONE NUMBER WITH AREA CODE (636) 236-7187		EMAIL ADDRESS drahn@ess-inc.com
ADDRESS 2464 Taylor Road Suite 130	CITY Wildwood	STATE MO	ZIP CODE 63038	
7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.				
PROJECT OWNER SIGNATURE 				
PRINTED NAME Jolynn Houchins			DATE 06/11/19	
TITLE OR CORPORATE POSITION Executive Director		TELEPHONE NUMBER WITH AREA CODE (636) 456-1186		EMAIL ADDRESS exec.director@turningpointdvs.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.				