

C295822-01

Permit No. CP0002008

Highway 47 Wastewater Treatment Facility, MO-0054623: Hwy 47 Lift Station

Southeast Wastewater Treatment Facility, MO-0131296: Southeast Wastewater Treatment Plant Improvements

**STATE OF MISSOURI**

**DEPARTMENT OF NATURAL RESOURCES**

**MISSOURI CLEAN WATER COMMISSION**



**CONSTRUCTION PERMIT**

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

City of Troy  
800 E. Cap Au Gris  
Troy, MO 63379-1712

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.

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 12, 2018  
Effective Date

December 11, 2020  
Expiration Date

A handwritten signature in blue ink, reading 'Edward B. Galbraith'.

Edward B. Galbraith, Director, Division of Environmental Quality

A handwritten signature in blue ink, reading 'Chris Wieberg'.

Chris Wieberg, Director, Water Protection Program

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## **CONSTRUCTION PERMIT**

### **COLLECTION SYSTEM:**

The proposed project will replace the Highway 47 Wastewater Treatment Plant with a lift station with an average daily capacity of 1.5 million gallon per day (mgd) and a peak hourly flow of 4.75 mgd. The liftstation will also have 2 million gallons of emergency storage, which will bring the total peak hourly flow capacity to 6.75 mgd.

These wastewater facilities will be in the City of Troy, Missouri, in Lincoln County, and discharge to a forcemain to be constructed under CPSE01079 and treated at the Southeast Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0131296.

### **WASTEWATER TREATMENT FACILITY:**

The proposed project will convert the existing Membrane Bioreactor treatment plant to an extended aeration treatment plant. The work at the Southeast Wastewater Treatment Plant will include upgrades to the existing influent lift station with variable speed pumps, the headworks will be replaced with a fine screen system, the existing membrane bioreactor system will be replaced with an extended aeration treatment system with anoxic zones to assist in achieving ammonia limits. The upgrades to the existing wastewater treatment facility will consist of the construction of an aeration splitter box, a secondary splitter/scum box, modification of the yard piping for air, sludge and main plant forward flow piping, 2 secondary clarifiers, 3 aeration tanks with anoxic zones, effluent tertiary filters, upgrades to the existing ultraviolet disinfection system, a sludge pumping system, a non-potable piping system for the aeration tanks and the mechanical screen system, upgrades to the cascade aerator, and a system communications system. Upgrades to the existing treatment building will include aeration blowers, piping, valves and demolition of existing components.

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

### **FINDING OF AFFORDABILITY:**

Funding for the modifications at the wastewater treatment plant will be obtained through the Department's State Revolving Fund (SRF) Program. The Department determines affordability through financial review and public participation processes required by the SRF program.

## **PERMIT CONDITIONS:**

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

1. All construction shall be in accordance with the plans and specifications submitted by Woodward & Curran on November 30, 2018. The plans were signed and sealed by Mr. Robert Polys, P.E., on October 1, 2018. The specifications were signed and sealed by Mr. Robert Polys, P.E., and Mr. Scott Hawk, P.E., on October 1, 2018. The plans and specifications were approved by the Department on December 12, 2018.
2. Regulation 10 CSR 20-4.040(19)(B)1 requires that projects be publicly advertised, allowing sufficient time for bids to be prepared and submitted. Projects should be advertised at least 30 days prior to bid opening.
3. The Department must be contacted in writing prior to making any changes to the approved 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(8).
4. As per 10 CSR 20-4.040, all changes in contract price or time within the approved scope of work must be by change order in accordance with Section 20 of this rule.
5. This construction permit does not authorize discharge.
6. A full closure plan for decommissioning the Highway 47 Wastewater Treatment Plant shall be submitted to the Department's St. Louis Regional Office for review and approval of any permitted wastewater treatment system being replaced. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III, Section I, of the Missouri State Operating Permit No. MO-0054623, Troy – Highway 47 Treatment Plant.

The closure plan for the Hwy 47 Wastewater Treatment Plant facility must be approved by the Department and a copy of the approved closure plan and the approval letter must be submitted to the Department's Financial Assistance Center prior to the startup of the proposed lift station, starting the conversion of any existing structures to flow equalization basins, and/or the decommissioning process of the existing wastewater treatment facility.

Form J – Request for Termination of a State Operating Permit, shall be submitted to the Department's St. Louis Regional Office for termination of any existing Missouri State Operating Permit, once closure is completed in accordance with the approved closure plan.

7. If land application is used for the disposal of the sludge from the Southeast Wastewater Treatment Facility, the city must submit a Sludge Management Plan to the St. Louis Regional Office.
8. 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)(E)2.
9. 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 may only be obtained by means of the Department's ePermitting system available online at [www.dnr.mo.gov/env/wpp/epermit/help.htm](http://www.dnr.mo.gov/env/wpp/epermit/help.htm).

See [www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm](http://www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm), for more information.

10. 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 [www.dnr.mo.gov/env/wpp/401/](http://www.dnr.mo.gov/env/wpp/401/), for more information.

11. Upon completion of construction:
  - A. The City of Troy, Missouri will become the continuing authority for operation, maintenance, and modernization of these facilities; and
  - B. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(D).