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 Winona
Winona Wastewater Treatment Facility
8488 Ash Street
Winona, MO 65588

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.

May 14, 2024
Effective Date

May 13, 2026
Expiration Date

John Hoke, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

This project includes improvements to the City of Winona's existing wastewater treatment facility (WWTF) and its associated collection system. The existing WWTF consists of an influent lift station, screening basket, oxidation ditch, two clarifiers, two sand filters, and UV disinfection with flow meter. Sludge is stored in a holding tank until land applied.

Improvements at the WWTF will include two new submersible pumps for the influent lift station, new influent flow meter, replacement of screening basket, replacement of oxidation ditch rotors, and replacement of all internal components of the clarifiers. Improvements in the collection system focus on rehabilitation to reduce inflow and infiltration (I&I). They include replacing of approximately 100 lineal feet of 12-inch SDR-35 PVC gravity main and approximately 1,710 lf of 8-inch SDR-35 PVC gravity main; installing 308 lf of 8-inch gravity sewer main, 600 lineal feet of 2-inch SDR-21 PVC force main, and two grinder pump stations; gravity main cured-in-place (CIPP) lining of approximately 400 lf of 12-inch sewer main and 20,600 lf of 8-inch sewer main; and adding 8 new standard manholes.

The WWTF will retain the existing design average flow of 175,000 gallons per day (gpd) and serves a hydraulic population equivalent of approximately 1,750 people.

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 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 Robert Summers, P.E., with Heartland Engineering, 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 Southeast Regional Office per 10 CSR 20-7.015(9)(G).

5. 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 https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem. See https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting for more information.

6. 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.

7. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
   - Vacuum testing, if specified for concrete sewer manholes, shall conform to the test procedures in ASTM C1244 – 11(2017) *Standard Test Method for Concrete Sewer Manholes by the Negative Air Pressure (Vacuum) Test Prior to Backfill*, as approved and published April 1, 2017, or the manufacturer's recommendation. 10 CSR 20-8.120(4)(F)1.

- Exfiltration testing, if specified for concrete sewer manholes, shall conform to the test procedures in ASTM C969 – 17 *Standard Practice for Infiltration and Exfiltration Acceptance Testing of Installed Precast Concrete Pipe Sewer Lines*, as approved and published April 1, 2017. 10 CSR 20-8.120(4)(F)2.
- 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)
- 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.
- 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)
- Isolate all 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(7)(G)
- 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 4 feet 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 12 complete air changes per hour. Where continuous ventilation would cause excessive heat loss, provide intermittent ventilation of at least 30 complete air changes per hour when facility personnel enter the area. Base air change demands on 100 percent 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 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)
- The identification and hazard warning data included on chemical shipping containers, when received, shall appear on all containers (regardless of size or type) used to store, carry, or use a hazardous substance. 10 CSR 20-8.140(9)(E)
- 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)
- All screening devices and screening storage areas shall be protected from freezing. 10 CSR 20-8.150(4)(A)1.
- Provisions shall be made for isolating or removing screening devices from their location for servicing. 10 CSR 20-8.150(4)(A)2.
- Manually cleaned screen channels shall be protected by guard railings and deck gratings with adequate provisions for removal or opening to facilitate raking. 10 CSR 20-8.150(4)(A)3.A.(I)
- Mechanically cleaned screen channels shall be protected by guard railings and deck gratings. 10 CSR 20-8.150(4)(A)3.A.(II)
- Mechanical screening equipment shall have adequate removal enclosures to protect facility personnel against accidental contact with moving parts and to prevent dripping in multi-level installations. 10 CSR 20-8.150(4)(A)3.B.(I)
- A positive means of locking out each mechanical screening device shall be provided. 10 CSR 20-8.150(4)(A)3.B.(II)
- An emergency stop button with an automatic reverse function shall be located in close proximity to the mechanical screening device. 10 CSR 20-8.150(4)(A)3. B.(III)
- 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)
- Where 2 or more mechanically cleaned bar screens are used, the design shall provide for taking the largest unit out-of-service without sacrificing the capability to handle the average design flow. Where only one mechanically cleaned screen is used, it shall be sized to handle the design peak instantaneous flow. 10 CSR 20-8.150(4)(B)
- Provisions for location and safety of comminutors shall be in accordance with screening devices,
  - Manually cleaned channels shall be protected by guard railings and deck gratings with adequate provisions for removal or opening to facilitate raking. 10 CSR 20-8.150(4)(A)3.A.(I)
  - Mechanically cleaned channels shall be protected by guard railings and deck gratings. 10 CSR 20-8.150(4)(A)3.A.(II)

- Mechanical equipment shall have adequate removal enclosures to protect facility personnel against accidental contact with moving parts and to prevent dripping in multi-level installations. 10 CSR 20-8.150(4)(A)3.B.(I)
- A positive means of locking out each mechanical device shall be provided. 10 CSR 20-8.150 (4) (A) 3. B. (II)
- An emergency stop button with an automatic reverse function shall be located in close proximity to the mechanical device. 10 CSR 20-8.150(4)(A)3.B.(III)
- 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)

- Effective flow splitting devices and control appurtenances (*e.g.* gates and splitter boxes) shall be provided to permit proper proportioning of flow and solids loading to each settling unit, throughout the expected range of flows. 10 CSR 20-8.160(2)(B)
- Overflow weirs shall be readily adjustable over the life of the structure to correct for differential settlement of the tank. 10 CSR 20-8.160(3)(C)1.
- Walls of settling tanks shall extend at least 6 inches above the surrounding ground surface and shall provide not less than 12 inches of freeboard. 10 CSR 20-8.160(3)(E)
- Safety features shall appropriately include machinery covers, life lines, handrails on all stairways and walkways, and slip resistant surfaces. For additional safety follow the provisions listed in 10 CSR 20-8.140(8). 10 CSR 20-8.160(5)(A)
- The design shall provide for convenient and safe access to routine maintenance items such as gear boxes, scum removal mechanism, baffles, weirs, inlet stilling baffle areas, and effluent channels. 10 CSR 20-8.160(5)(B)
- For electrical equipment, fixtures, and controls in enclosed settling basins and scum tanks, where hazardous concentrations of flammable gases or vapors may accumulate, follow the provisions in 10 CSR 20-8.140(7)(B). The fixtures and controls shall be conveniently located and safely accessible for operation and maintenance. 10 CSR 20-8.160(5)(C)

8. Upon completion of construction:

   A. The City of Winona will become the continuing authority for operation and maintenance of these facilities;

   B. Submit an electronic copy of the as builts 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).

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

Construction will replace broken and worn-out equipment for the WWTF to ease operation and maintenance and improve performance. Construction in the collection system to address issues related to inflow and infiltration.

2. FACILITY DESCRIPTION

The Winona WWTF is located at 111 Pike Street, Winona, in Shannon County, Missouri. The WWTF operates under the Missouri State Operating Permit (MSOP), MO-0100714. The WWTF has a design average flow of 175,000 gpd and serves a hydraulic population equivalent of approximately 1,750 people. The existing WWTF consists of an influent lift station, screening basket, oxidation ditch, two clarifiers, two sand filters, and UV disinfection with flow meter. Sludge is stored in a holding tank until land applied.

Improvements at the WWTF will include two new submersible pumps for the influent lift station, new influent flow meter, removal of screening basket, replacement of oxidation ditch rotors, replacement of all internal components of the clarifiers, and other appurtenances for a fully operational WWTF.

Improvements in the collection system focus on rehabilitation to reduce inflow and infiltration (I&I) and include manhole lining and repairs, gravity sewer main cured-in-place lining and repairs, new grinder pumps and force main, and other appurtenances for fully operational collection system.

3. COMPLIANCE PARAMETERS

The proposed project replaces broken and worn-out equipment for the WWTF to ease operation and maintenance and improve performance. No changes in the effluent limits are proposed and the facility is required to meet the effluent limits established in the MSOP, MO0100714.

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

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

- Influent pump station's wet well
- Oxidation Ditch
- Clarifiers
- Gravity sand filters
- UV disinfection system
- Sludge holding basin.

Construction will cover the following items:

- Collection system work:
    - Approximately 100 lf of 12-inch SDR-35 PVC gravity line replacement,
    - Approximately 1,710 lf of 8-inch SDR-35 PVC gravity line replacement,
    - Approximately 308 lf of 8-inch SDR-35 PVC to replace the existing 6-inch sewer main,
    - CIPP lining of approximately 400 lf of 12-inch gravity line and 20,600 lf of 8-inch gravity line,
    - 8 new standard manholes,
    - Approximately 600 lf of 2-inch SDR-21 PVC force main
    - Two simplex grinder pumps with each pump capable of operating at 30 gallons per minute at 70 Total Dynamic Head (TDH)
    - And other repairs of the sewer lines and manholes.
- Influent Pump Station – Installation of two 7.5 horsepower submersible pumps each capable of operating at 450 gpm at 33 feet TDH equipped with Variable Frequency Drive (VFD). The pumps will be installed within the existing wet well. A new valve vault will be constructed next to the wet well to house the new valves and pump station piping.
- Flow Measurement – Installation of accurate flow measurement devices will give the treatment facility a means of improved data analysis.
    - Electromagnetic Meter – An influent electromagnetic flow meter shall measure the raw influent wastewater.
    - A second electromagnetic meter will be installed on the return activated sludge.
- Screening – Installation of screening devices removes nuisance inorganic materials from raw wastewater. A new headworks structure will be provided to house a mechanical spiral screen and manual bar screen.
    - Mechanical Fine Screw Screen – One mechanically-cleaned fine screen capable of treating a design average flow of 175,000 gpd (0.175 MGD) and a peak flow of 650,000 gpd (0.65 MGD).
    - A manual bar screen shall be in the bypass channel with clear bar spacings of ⅛ inch and be positioned at an angle of 45 degrees from the horizontal to allow for manual raking of the screen. The screening structure is followed by the oxidation ditch.
- Oxidation Ditch –The existing oxidation ditch (approximately 58-ft-wide with 24-ft channel width by 119-ft-long by 8-ft-deep) is being retained. Only the rotors are being replaced with added new dissolved oxygen sensors.
        - The existing rotors will be replaced with disc rotors. There will be 2 rotors, with each rotor having 18 discs.
        - Two 15-hp blowers on VFD will provide aeration to the oxidation ditch.
            - The aeration equipment shall consist of 2 complete rotary aerator assemblies designed for controlled disc submergence of

16 to 21 inches and a max 51 rpm, so that the oxygen transfer rate and power requirements can be varied with the flow and treatment requirements.
        - The rotary aerator assemblies to be furnished and installed shall be capable of delivering a standard oxygen rate (SOR) of 27.57 lb. O_2/hr.
- Secondary Clarifier – Inside the existing secondary clarifiers, new clarifier components will be installed. Each clarifier has a sidewater depth of 12 ft, with inner diameter of 20 ft, and 1.5 ft of freeboard.
    - Each clarifier has a surface area of approximately 314 ft^2, with an approximate volume of 3,770 ft^3 or 28,199 gallons.
        - Overall surface area for the 2 clarifiers: 628 ft^2.
        - Overall volume of the 2 clarifiers: 7,540 ft^3 or 56,399 gallons
    - The surface overflow rate
        - Surface overflow rate at peak hourly flow for 1 clarifier is 2,064 gpd/ft^2 at or 1,032 gpd/ft^2 for 2 clarifiers.
        - 2 clarifiers meet the surface overflow rate of 1,200 gpd/ft^2 required for activated sludge system per 10 CSR 20-8.160(3)(B)3.
    - The weir loading rate
        - Weir overflow rate is 13,889 gpd/ft with 1 clarifier at peak hourly flow or 6,944 gpd/ft for 2 clarifiers.
        - 6,944 gpd/ft is less than the maximum loading rate requirement of 20,000 gpd/ft in 10 CSR 20-8.160(3)(C)2.
    - The solids loading rate
        - The solids loading rate is 60.6 lbs/day/ft^2 with 1 clarifier or 30.3 lbs/day/ft^2 with 2 clarifiers at peak hourly flow.
        - The solids loading rate of 30.3 lbs/day/ft^2 meets the requirements of 10 CSR 20-8.160(3)(B)3 of less than 40 lbs/day/ft^2 at peak flow.
    - Flows go from the secondary clarifiers to the existing gravity sand filters and then through the UV disinfection system before discharging into Pike Creek.

5. OPERATING PERMIT

These construction activities do not change the effluent limits or conditions of the current operating permit. The department will conduct an internal modification to reflect the current facility description upon receipt of the Statement of Work Completed form.

V. NOTICE OF RIGHT TO APPEAL

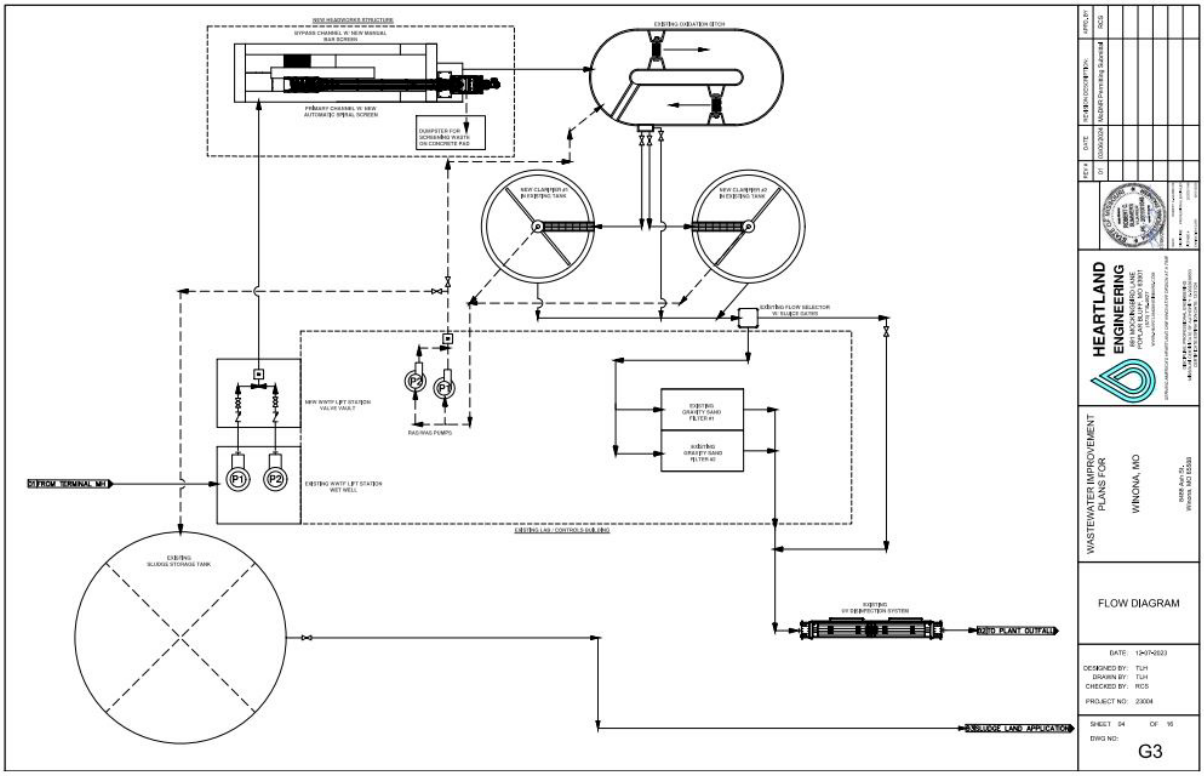
If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you

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

Sieu T. Dang, P.E.
Engineering Section
sieu.dang@dnr.mo.gov

APPENDIX A - Process Flow Diagram



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: MoDNR-ARPA Project #: 2E9B73A277E1

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: 10-2022 ☐ 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
Winona Wastewater Improvements

2.2 ESTIMATED PROJECT CONSTRUCTION COST
$ 3,600,000

2.3 PROJECT DESCRIPTION
Wastewater treatment improvements: new influent channel and mechanical screen with bypass, new oxidation rotors and controls, and new secondary clarifiers. Wastewater collection improvements: various I&I reduction measures. See the plans for full details.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
One sludge holding tank is currently in use and will be retained for the proposed design. The facility owner has authorization to land apply sludge.

2.5 DESIGN INFORMATION

A. Current population: 1335 ; Design population: 1750

B. Actual Flow: 160,000 gpd; Design Average Flow: 175,000 gpd;
Actual Peak Daily Flow: 405,000 gpd; Design Maximum Daily Flow: 437,500 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	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Winona Wastewater Treatment Facility	(573) 325-4443	cityadministrator@winonamo.org

ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE	COUNTY
111 Pike Road	Winona	MO	65588	Shannon

Wastewater Treatment Facility: Mo- 0100714 (Outfall 001 Of 001)

3.1 Legal Description: _____ ¼, _____ ¼, _____ ¼, Sec. 18, T 27N, R 3W
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): 650005 Northing (Y): 4096728
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: Pike Creek

4.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
City of Winona	(573) 325-4410	cityadministrator@winonamo.org

ADDRESS	CITY	STATE	ZIP CODE
8488 Ash St	Winona	MO	65588

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	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
City of Winona	(573) 325-4410	cityadministrator@winonamo.org

ADDRESS	CITY	STATE	ZIP CODE
8488 Ash St	Winona	MO	65588

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 ☐ 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? ☐ YES ☐ 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? ☐ YES ☐ NO

D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? ☐ YES ☐ NO

6.0 ENGINEER

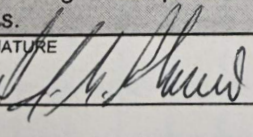
ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Bob Summers / Heartland Engineering	(573) 718-4627	bsummers@heartlandengineers.com

ADDRESS	CITY	STATE	ZIP CODE
891 Mockingbird Ln	Poplar Bluff	MO	63901

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: X 

PRINTED NAME	DATE
Michael Phoenix	X 2024-02-14

TITLE OR CORPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Mayor	(573) 325-4410	mayor@winonamo.org

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.