STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

CONSTRUCTION PERMIT

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

Confluence Rivers Utility Operating Company, Inc.
Micah C. Franklin, Utility Engineer
Confluence Rivers – Berkshire Glenn WWTF
NE 120st Street
300 ft W of Hills Road
Kearney, MO 64060

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

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

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

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

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

June 4, 2025
Effective Date

June 3, 2027
Expiration Date

John Hoke, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Construction of an Integrated Fixed Film Activated Sludge (IFAS) system with UV disinfection to replace the existing recirculating sand filter system.

A closure plan will need to be submitted to the Kansas City Regional Office for review and approval prior to any closure activities.

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. Additionally, 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 Kyle Ruediger, P.E. with 21 Design Group 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 Kansas City 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. In accordance with 10 CSR 20-6.010(12), a full closure plan shall be submitted to the department's Kansas City Regional Office for review and approval of any permitted wastewater treatment system being replaced. The closure plan must meet the requirements outlined in Standard Conditions Part III of the Missouri State Operating Permit No. MOGDS0137. Closure shall not commence until the submitted closure plan is approved by the department. Form J – *Request for Termination of a State Operating Permit*, shall be submitted to the Water Protection Program for termination of any existing Missouri state operating permit, once closure is completed in accordance with the approved closure plan.

8. 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(3)(B)

- 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: 10 CSR 20-8.130(3)(C)
    - 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)
    - 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 distance between wastewater pumping stations and all potable water sources shall be at least 50 feet in accordance with 10 CSR 23-3.010(1)(B). 10 CSR 20-8.130(3)(D)

- Multiple pumps shall be provided except for design average flows of less than 1,500 gallons per day (gpd). 10 CSR 20-8.130(4)(B) 1.

- Electrical equipment. Electrical equipment shall be provided with the following requirements:
    - 10 CSR 20-8.130(4)(B)2.A. Electrical equipment must comply with 10 CSR 20-8.140(7)(B);
    - Utilize corrosive resistant equipment located in the wet well; 10 CSR 20-8.130(4)(B)2.B.
    - Provide a watertight seal and separate strain relief for all flexible cable; 10 CSR 20-8.130(4)(B)2.C.
    - Install a fused disconnect switch located above ground for the main power feed for all pumping stations. 10 CSR 20-8.130(4)(B)2.D.
    - When such equipment is exposed to weather, it shall comply with the requirements of weather proof equipment; enclosure NEMA 4; NEMA 4X where necessary; and *NEMA Standard 250-2014*, published December 15, 2014. 10 CSR 20-8.130(4)(B)2.E.
    - Install lightning and surge protection systems; 10 CSR 20-8.130(4)(B)2.F.
    - Install a one hundred ten volt (110 V) power receptacle inside the control panel located outdoors to facilitate maintenance; 10 CSR 20-8.130(4)(B)2.G.
    - Provide Ground Fault Circuit Interruption (GFCI) protection for all outdoor receptacles. 10 CSR 20-8.130(4)(B)2.H.

- Water level controls must be accessible without entering the wet well. 10 CSR 20-8.130(4)(C)

- Valves shall not be located in the wet well unless integral to a pump or its housing. 10 CSR 20-8.130(4)(D)

- Covered wet wells shall have provisions for air displacement to the atmosphere, such as an inverted and screened “j” tube or other means. 10 CSR 20-8.130(4)(E)

- 10 CSR 20-8.130(5)(C) Wet well access shall not be through the equipment compartment.

- Submersible pump stations shall meet the applicable requirements under section (3) of this rule, except as modified in this section. 10 CSR 20-8.130(6)
    - Pump Removal. Submersible pumps shall be readily removable and replaceable without personnel entering, dewatering, or disconnecting any piping in the wet well. 10 CSR 20-8.130(6)(A)
    - 10 CSR 20-8.130(6)(B) Valve Chamber and Valves. Valves required under subsection (4)(D) of this rule shall be located in a separate valve chamber.
    - A minimum access hatch dimensions of 24 inches by 36 inches shall be provided. 10 CSR 20-8.130(6)(B)1.

- A portable pump connection on the discharge line with rapid connection capabilities shall be provided. 10 CSR 20-8.130(6)(B)2.

- Alarm systems with an uninterrupted power source shall be provided for pumping stations. 10 CSR 20-8.130(7)

- Force main system shall be designed to withstand all pressures (including water hammer and associated cyclic reversal of stresses), and maintain a velocity of at least two feet per second. 10 CSR 20-8.130(9)(A)

- 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.

- No treatment unit with a capacity of 22,500 gpd or less shall be located closer than the minimum distance of 50 feet to a neighboring residence. See 10 CSR 20-2.010(68) for the definition of a residence. 10 CSR 20-8.140(2)(C)2

- 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)

- All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140(7)(A)1.

- Disinfection and dechlorination, when used, shall be provided during all power outages. 10 CSR 20-8.140(7)(A)2.

- Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 *National Electric Code (NEC)* (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140(7)(B)

- An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140(7)(C)

- No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140(7)(D)1.

- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140(7)(E)

- Effluent 24-hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140(7)(F)

- 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)

- 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)

- Aerobic Solids Digestion High Level Emergency Overflow. An unvalved emergency overflow shall be provided that will convey digester overflow to the treatment plant headworks, the aeration process, or to another liquid sludge storage facility and that has an alarm for high level conditions. 10 CSR 20-8.170(5)

- Alarm systems shall be provided for sludge dewatering processes to notify the operator(s) of conditions that could result in process equipment failure or damage, threaten operator safety, or a solids spill or overflow condition. 10 CSR 20-8.170(7)(B)

- Moving Bed Bioreactor (MBBR). A MBBR secondary treatment system shall provide upstream preliminary treatment units capable of—
    - Screening to reduce pass-through and suspended solids; 10 CSR 20-8.180(8)(A)
    - Grit removal; 10 CSR 20-8.180(8)(B) and
    - Oil and grease removal. 10 CSR 20-8.180(8)(C)

- Emergency Power. Disinfection and dechlorination processes, when used, shall be provided during all power outages. 10 CSR 20-8.190(2)(A)

- Effluent 24 hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.190(3)(D)

- The UV dosage shall be based on the design peak hourly 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 microwatt seconds per centimeters squared ($\mu W \bullet s/cm^2$). 10 CSR 20-8.190(5)(A)4.

- Open channel UV systems. The combination of the total number of banks shall be capable of treating the design peak hourly flow. 10 CSR 20-8.190(5)(B)1.

- The UV system must continuously monitor and display at the UV system control panel the following minimum conditions:
    - The relative intensity of each bank; 10 CSR 20-8.190(5) (C)1.A.
    - The operational status and condition of each bank; 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. 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.

9. Upon completion of construction:

    A. The Confluence Rivers Utility Operating Company, Inc. 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) and request the operating permit description be modification to reflect construction.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The facility is completely replacing the existing recirculating sand filter (RSF) treatment technology with an Integrated Fixed Film Activated Sludge (IFAS) system to meet ammonia limits which the currently installed treatment technology does not consistently meet. Additionally, a disinfection system will be installed to meet *E. coli* limits.

The existing RSF system is in disrepair and requires additional maintenance activities as the underdrain has reportedly failed and must be frequently jetted and cleaned. Replacement or repair of the system is necessary.

2. FACILITY DESCRIPTION

The current facility is a recirculating sand filter which treats effluent from a Septic Tank Effluent Pumped (STEP) collection system. The recirculating sand filter will be closed following construction with the existing recirculation/dosing tank reused as emergency storage for the influent pump station.

The Confluence Rivers – Berkshire Glenn WWTF is located at NE 120st Street, 300 ft W of Hills Road, City of Kearney, Clay County, Missouri. The facility has a design average flow of 18,500 gpd and serves a hydraulic population equivalent of approximately 185 people.

3. COMPLIANCE PARAMETERS

The existing facility does not have disinfection and does not consistently meet an ammonia as N monthly limit of 0.9 mg/l. The proposed project is required to meet the requirements of MOGDS0137 Table A with an expiration date of June 30, 2029. As this facility is privately owned, *E. coli* limits are expressed as a Daily Maximum and Monthly Average. Privately owned treatment works are not subject to percent removal requirements and do not sample for influent requirements in Table E. This facility is approved by the department to dispose of sludge via contract hauler to a permitted wastewater treatment facility. The facility must contact the department for approval prior to utilizing other sludge disposal methods.

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

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

- Recirculation Tank – The existing recirculation tank will remain with the existing pumps and lines connecting to the tank plugged. The tank dimensions are approximately 20 ft length, nine feet width, and 9 feet depth. Following construction, the recirculation tank will provide emergency storage for the new influent pump station.

- Outfall structure – The existing outfall structure will not be modified.

- STEP collection system – No collection system work will be completed as a part of the proposed construction.

Construction will cover the following items:

- Components are designed for a Population Equivalent of 185 based on organic loading to the system.

- Influent Pump Station – Construction of a duplex influent pump station with each 2.0 HP submersible pump capable of operating at 54 gpm at 20 feet of TDH.
  - Recirculation tank modified to provide additional emergency storage, resulting in storage capacity for over four hours of peak hourly flow.

- Flow Measurement – Installation of accurate flow measurement devices will give the treatment facility a means of improved data analysis.
  - V-notch Weir – A v-notch weir with a 60-degree notch with an ultrasonic level sensor and transmitter will record flow.

- Screening – Installation of screening devices removes nuisance inorganic materials from raw wastewater.
  - Static Screen – A SHS12 Sidehill static screen by IPEC will be provided. This static screen uses wedgewire screens to separate solids from the influent.
    - Solids are collected on a concrete pad with a drain back to the influent pump station for liquids.
    - Separated liquids flow by gravity to the first IFAS unit.

- Integrated Fixed Film Activated Sludge (IFAS) – Installation of three MBBR units in series capable of treating a design average flow of 18,500 gpd and a peak flow of 74,000 gpd. Each MBBR unit will be approximately six foot wide, six foot long, and 14 ft deep with a sidewater depth of 12 ft for a volume of approximately 3,231 gallons each and 9,694 gallons total. The hydraulic retention time at design flow is 12.58 hours. The MBBR units will be filled approximately 50 percent with high surface area Kontakt 650 media. Aeration by means of two blowers (one on, one standby) each capable of supplying 81 scfm with 3.4 BHP motors to the coarse bubble diffusers. Sieves to retain media within the treatment units will be installed between each unit and on the gravity line to the clarifier. The effluent from the MBBR will flow by gravity to the clarifier.
  - Return Activated Sludge from the secondary clarifier is fed into the first MBBR unit.

- Secondary Clarifier – One secondary clarifier will be constructed with a total surface area of 72 sf at the 0.074 MGD peak with a surface overflow rate of 1,068 gpd/sf meeting the requirements of 10 CSR 20-8.160(B)2. of being less than 1,200 gpd/sf. The clarifier will have dimensions of six ft wide by 12 feet long with a sidewater depth of 8.3 ft. The weir loading rate is 6,413 gpd/sf which meets the requirements of 10 CSR 20-8.160(3)(C)2 of being less than 10,000 gpd/sf. The peak solids loading rate is 17.32 lbs/day/sf.

- Disinfection – Disinfection is the process of removal, deactivation, or killing of pathogenic microorganisms.
  - Closed Vessel Ultraviolet (UV) – A closed vessel, gravity flow, low pressure high output UV disinfection system capable of treating a peak flow of 74,000 gpd while delivering a minimum UV intensity of 35 mJ/cm^2 with an expected ultraviolet transmissivity of 65 percent or greater. The closed vessel UV system consists of two lamps per reactor. Two closed vessel UV reactors are arranged in series. The disinfected effluent will flow by gravity through flow measurement equipment and to a new effluent line to the existing Outfall No. 001 structure.

- Emergency Power – A 48 kW generator and transfer switch will be rented to operate the treatment facility in event of power failure.

- Aerobic Digester – Construction of one aerobic digester with a 6 ft width, 12ft length a 12 ft sidewater depth, and a volume of 6,463 gallons. The design basis of the digester is an influent concentration of 3000 mg/L with a flowrate of 971 gpd. Installation of coarse bubble diffusers will provide aeration and mixing of the sludge to prevent anaerobic conditions. One blower with 0.3 BHP motors are capable of providing a maximum air rate of 26 standard cubic feet per minute (scfm) at 6.17 psig to treat 24.3 lbs of solids. The digester aeration system in interconnected with the rest of the system for continuous operation during blower maintenance and repairs. The aerobic digester receives WAS from the secondary clarifier and provides approximately 42 days of solids retention time.

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.

Operating permit MOGDS0137 will be expiring on June 30, 2029. A renewal application must be filed before January 1, 2029, regardless of the status of these construction activities. If you have questions on completing the renewal application, please contact the NPDES permitting section at 573-522-4502.

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:

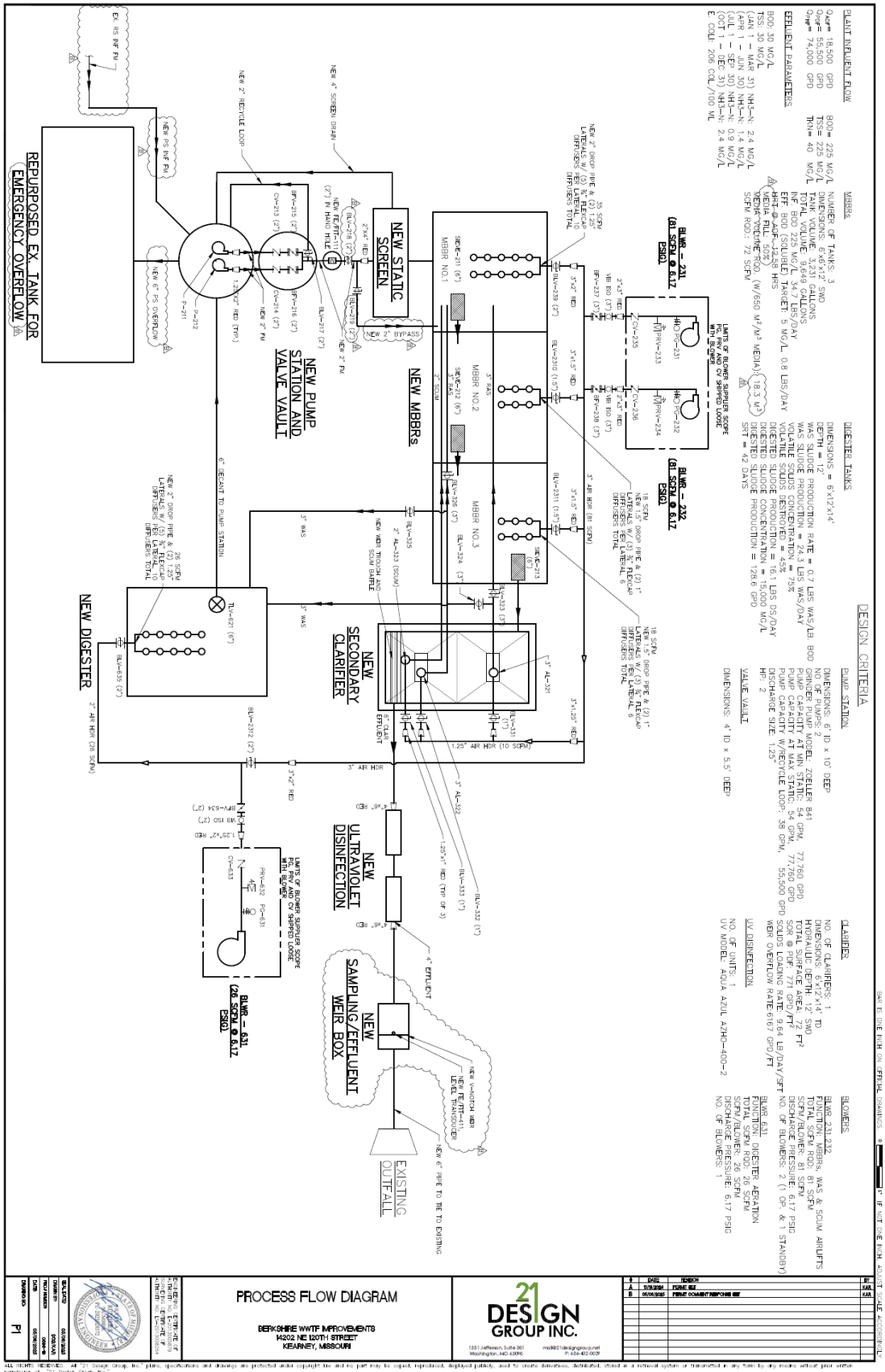
Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: https://ahc.mo.gov

Andrew Sell
Engineering Section
andrew.sell@dnr.mo.gov

Chia-Wei Young, P.E.
Engineering Section
chia-wei.young@dnr.mo.gov

APPENDIX

- **Process Flow Diagram**



Rcvd 1/27/25

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT – WASTEWATER TREATMENT FACILITY

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED	CHECK NO.
DATE RECEIVED	

APPLICATION OVERVIEW

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

PART A – BASIC INFORMATION

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

1.1 Is this a Federal/State funded project? ☐ YES ☑ N/A Funding Agency: _____ Project #: _____

1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
☐ YES Date of Approval: _____ ☑ N/A

1.3 Has the department approved the proposed project's facility plan*?
☑ YES Date of Approval: 4/29/24 ☐ 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
Berkshire Glenn Wastewater System Improvements

2.2 ESTIMATED PROJECT CONSTRUCTION COST
$ 500,000

2.3 PROJECT DESCRIPTION
Addition of an Integrated Fixed Film Activated Sludge Process (IFAS) with influent pump station, new static screen, blowers, clarifier, digester, and UV disinfection.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Sludge removed by contract hauler

2.5 DESIGN INFORMATION

A. Current population: 100 ; Design population: 185

B. Actual Flow: 10k gpd; Design Average Flow: 18.5k gpd;
Actual Peak Daily Flow: _____ gpd; Design Maximum Daily Flow: 55.5k 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
Berkshire Glenn Subdivision	(314)-380-8544	env.comp@cswrgroup.com

ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE	COUNTY
NE 120th Street	Kearney	MO	64060	Clay

Wastewater Treatment Facility: Mo- (Outfall Of)

3.1 Legal Description: ____ ¼, ____ ¼, ____ ¼, Sec. 17, T 52N, R 31W
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): 378866 Northing (Y): 4352180
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: Tributary to Holmes Creek

4.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Confluence Rivers Utility Operating Company, INC	(314)-380-8544	env.comp@cswrgroup.com

ADDRESS	CITY	STATE	ZIP CODE
1630 Des Peres Rd. Suite 140	St. Louis	MO	63131

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
Same		

ADDRESS	CITY	STATE	ZIP CODE

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

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

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

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

A. Is a copy of the as-filed restrictions and covenants included with this application? ☐ YES ☐ 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
Kyle Ruediger	(314)-952-9822	kyle@21designgroup.net

ADDRESS	CITY	STATE	ZIP CODE
1351 Jefferson, Suite 301	Washington	MO	63090

7.0 APPLICATION FEE

☐ CHECK NUMBER ☑ JETPAY CONFIRMATION NUMBER 20061550

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

Micah Franklin

PRINTED NAME	DATE
Micah C Franklin	1/24/25

TITLE OR CORPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Utility Engineer	8163174755	mfranklin@cswrgroup.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.