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 Monett
217 5th Street
Monett, MO 65708

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.

August 15, 2025
Effective Date

August 14, 2027
Expiration Date

Heather Peters, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

The proposed project will repair and reinstate the abandoned primary clarifiers and the sludge thickener in the digester complex. This project will also repair and reinstate the existing anerobic digesters and convert them to aerobic digesters with the installation of blowers and associated equipment. Aeration will also be added to the existing oxidation ditches.

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 in accordance with the plans and specifications prepared by Allgeier, Martin, and Associates, Inc., and signed and sealed by Jared Nichols, P.E. with original date of October 9, 2023. The revised specifications and revised plan sheets (pages 4, 5, 9, 10, 19, 64, 66, 67,68, 69, 83, 88, 94, 95 and 96) were signed and sealed by Jared Nichols, P.E. on June 12, 2025, and approved by the department on August 15, 2025.

3. Regulation 10 CSR 20-4.040(18)(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.

4. 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(11).

5. 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 19 of this rule.

6. 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 electronic Sanitary Sewer Overflow/Bypass Reporting system at https://dnr.mo.gov/mogem/ or Southwest Regional Office per 10 CSR 20-7.015(9)(G).

7. 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 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.

8. A United States Army Corps of Engineers (USACE) Section 404 Department of Army permit (§404) along with the department's Section 401 Water Quality Certification or waiver (§401) 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 likely be required. Since the USACE makes determinations on what is jurisdictional, you must contact the USACE to determine permitting requirements. See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality for more information or you may contact the department's Water Protection Program at 573-522-4502 or wpsc401cert@dnr.mo.gov.

9. Upon completion of construction:

    a. The City of Monett 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 enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(N) and request the operating permit modification be issued. When the facility applies for their next operating permit renewal, they will be expected to include an updated facility description on their application.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The project will repair and reinstate the abandoned primary clarifiers and the sludge thickener in the digester complex. This project will also repair and reinstate the existing anerobic digesters and convert them to aerobic digesters with the installation of blowers and associated equipment. Aeration will also be added to the existing oxidation ditches. The WWTP improvements project will enhance the reliability of the plant and facilitate meeting future nutrient limits.

2. FACILITY DESCRIPTION

The City of Monett's wastewater treatment plant, operating under Missouri State Operating Permit No. MO-0021440, was expanded in 1993 and 2006 to boost biological treatment and achieve advanced levels. While the plant meets most discharge standards, it struggles with copper limits, prompting ongoing efforts to adjust these limits through water effects ratio testing with MoDNR.

The proposed Monett WWTP improvements will not impact the design capacity but will address the issues with the reliability of several components. Previously, the city decided to abandon the anaerobic digester system and preceding processes including two primary clarifiers, the sludge pumps in the administration building basement, gravity sludge thickener, two anaerobic digesters, the digester complex, pump and piping. The proposed project will repair and reinstated these process and equipment except for the two anaerobic digesters which will be converted into aerobic digesters.

The Monett WWTP is located at 0.25 miles northeast of S. Eisenhower St. & Hwy 60 intersection, Monett, Missouri, in Barry County. The current facility has a design average flow of 6 million gallons per day and serves a design population equivalent of 74,000 people.

3. COMPLIANCE PARAMETERS

The existing facility can meet BOD_5, TSS, and ammonia weekly and monthly averages. The proposed project is required to meet final effluent limits established in Missouri State Operating Permit MO-0021440 dated July 1, 2024. No modifications to effluent limits are anticipated due to construction.

4. REVIEW OF MAJOR TREATMENT DESIGN CRITERIA

Existing Components:

Influent screw pump lift station / 2 mechanical bar screens / bar screen / peak flow basin / aerated grit chamber / six anaerobic basins / four anoxic basins / 2 primary clarifiers / 2 oxidation ditches with aeration / 3 trickling filter towers utilized only for backup treatment / 2 final clarifiers / 2 tertiary fabric filters / ultraviolet disinfection / concrete re-aeration steps / partial direct irrigation on golf course from effluent pump station / 6 aerobic digesters / gravity belt sludge thickener / 10 sludge drying beds / biosolids are land applied / facility does not have materials stored or conduct operations in a manner that would cause the discharge of pollutants via stormwater.

Existing trickling filter towers will be abandoned in place but left operational.

Proposed Improvements:

- Primary Clarifier Reinstatement – The two 55-foot diameter primary clarifier structures will be retained, repaired, and repainted. The sludge collection mechanisms will be removed and replaced with similar equipment. The horizontal centrifugal sludge pumps in the administration building basement will be replaced and piping changes will be made. The scum pump and skimmer for the primary clarifiers will also be replaced.

- Gravity Sludge Thickener Reinstatement – Sludge from the primary clarifiers will be pumped up to the existing 24-foot diameter gravity sludge thickener. The structure will be retained, repaired, and repainted. The sludge collection mechanisms will be removed and replaced with similar equipment. Much of the piping in the digester complex basement will be removed and replaced to accommodate double disc pumps and updated controls for sludge removal.

- Aerobic Digesters – The previously abandoned digesters will be converted into aerobic digesters treating sludge from the primary clarifiers, having been thickened by the gravity sludge thickener. Scum from the primary clarifiers will be pumped directly to the digesters. Sludge gas piping and equipment associated with the abandoned digesters will be removed and the structures will be repaired and repainted.

  Sludge transfer from the gravity sludge thickener, between digesters, and to sludge storage will be by gravity or by the double disc pumps in the digester complex basement. Aeration will be provided by three 125 hp positive displacement blowers and the aeration equipment in the basins will be bridge mounted drop tube medium bubble diffusers with baffles and shear tubes.

- Addition of Aeration Equipment in Existing Oxidation Ditches – The two racetrack-type oxidation ditches are currently aerated with 5 brush rotors in each ditch; 4 of these 10 brush rotors will be removed. Additional aeration equipment will consist of four 100-hp positive displacement blowers and aeration equipment

in the basins as wall mounted retrievable diffuser racks. Four new mixers are also being provided in each ditch to ensure adequate basin velocity. The blowers will be controlled via a Proportional-Integral-Derivation (PID) loop using variable frequency drives (VFDs) and dissolve oxygen probes for process optimization and energy savings.

5. OPERATING PERMIT

Missouri State Operating Permit No. MO-0021440 will require a modification to reflect the construction activities. The modified Monett WWTF, MO-0021440, was successfully public noticed from April 25 to May 27, 2025, with no comments received. At construction substantial completion, submit the Statement of Work Completed form to the department in accordance with 10 CSR 20-6.010(5)(N) and request the operating permit modification be issued.

Tazrin Chowdhury
Financial Assistance Center
tazrin.chowdhury@dnr.mo.gov

APPENDICES

Appendix A - Summary of Design
Appendix B - Project Map

APPENDIX A – SUMMARY OF DESIGN

Summary of Design
Monett, MO Wastewater Treatment Plant

The planned 2024 improvements to the Monett WWTP do not alter the existing hydraulic or organic capacity of the facility. The design capacity of the WWTP is as follows:

	Design Capacity
Average Flow	6.0 mgd.
Peak Flow	12.0 mgd.
Average BOD5	13,400 lb./d.
Average TSS	10,300 lb./d.
Average TKN	3,000 lb./d.

Additional flow and load information is shown in attached Figure 1.

General

The improvements proposed for the Monett WWTP will not impact the design capacity of the facility but will instead address issues with the reliability of several plant components. The existing trickling filter towers will be abandoned in place but left operational. This decision and the scope of the improvements is driven by budget considerations. The four main components that are being upgraded or reinstated as a part of this project include two primary clarifiers, one gravity sludge thickener, conversion of the original anerobic digesters to aerobic digesters, and the addition of aeration in the existing oxidations ditches. Aeration equipment, piping, electrical, and ancillary work associated with these improvements will also be completed. All other treatment processes will remain in operation and will be largely unaffected by the project.

Previously the City decided to abandon the anaerobic digester system and preceding processes which include:

- Two primary clarifiers
- The sludge pumps in the Administration Building basement
- Gravity sludge thickener
- Two anerobic digesters
- The digester complex, pumps, and piping

These processes and equipment are being reinstated except for the two anerobic digesters which will be converted into aerobic digesters.

Primary Clarifier Reinstatement

The two 55' diameter primary clarifier structures will be retained, repaired, and repainted. The sludge collection mechanisms will be removed and replaced with similar equipment. The capacity of the primary clarifiers will be reinstated to their original capacity of 6.0 MGD combined. Flows over 6.0 MGD are diverted around the primary clarifiers to the intermediate / RAS pumping structure which pumps into the activated sludge process.

The horizontal centrifugal sludge pumps in the administration building basement will be replaced and piping changes will be made. These pumps provide sludge removal from the primary clarifiers. The scum pump and skimmer for the primary clarifiers will also be replaced. The pumping characteristics for the sludge pumps and scum pump will match the original design with the addition of VFDs for sludge pumping control.

At 6.25 MGD the two primary clarifiers have an overflow rate of 1,316 gpd/sf. 6.25 MGD includes the overflow rate being returned from the sludge thickener. At a flow of 4.75 MGD the two primary clarifiers have an overflow rate of 1,000 gpd/sf. At a flow of 14.25 mgd the two primary clarifiers have an overflow rate of 3,000 gpd/sf.

Gravity Sludge Thickener Reinstatement

Sludge from the primary clarifiers will be pumped up to the existing 24' diameter gravity sludge thickener. The structure will be retained, repaired, and repainted. The sludge collection mechanisms will be removed and replaced with similar equipment.

Sludge removal will be accomplished by double disc pumps in the digester complex basement. The pumps will operate on VFD's for sludge pumping control. Most of the piping in the digester complex basement will be removed and replaced to accommodate the double disc pumps and revised flow control needs. Overflow from the sludge thickener is returned to the head of the plant.

Sludge pumped to the gravity sludge thickener from the administration building pumps will be pumped at a rate between 190 gpm to 300 gpm which equates to an overflow rate from the gravity sludge thickener of approximately 600 gal/sf-d to 950 gal/sf-d, respectively. While the hydraulic loading rate produced by 300 gpm is high, the VFD's provide control of the pumping rate and flexibility during high flow periods and high temperature periods.

The solids loading rate to the sludge thickener is approximately 18 lb/sf-d based on 7,940 lbs of TSS being wasted from the primary clarifiers.

Aerobic Digesters

The two existing aerobic digesters have been abandoned. Some of the gas collection equipment and piping has been removed and the sludge gas collection covers have been removed. These structures will be retained, repaired, and repainted. The remaining sludge gas piping and equipment will be removed.

The digesters will be converted into aerobic digesters treating sludge from the primary clarifiers, having been thickened by the gravity sludge thickener. Scum from the primary clarifiers will be pump directly to the digesters. Decant capabilities will be provided in both digesters. Supernatant is returned to the head of the plant.

Sludge transfer from the gravity sludge thickener, between the digesters, and to sludge storage will be accomplished by gravity or by the double disc pumps in the digester complex basement. Aeration will be provided by three 125 hp positive displacement blowers and aeration equipment in the basins. The aeration equipment will be bridge mounted drop tube medium bubble diffusers with baffles and shear tubes. The aeration also provides the required mixing in the digester basins. The blowers will be controlled via a PID loop using VFD's and D.O. probes for process optimization and energy savings. An additional blower is provided for redundancy.

30 scfm per 1,000 cubic feet of digester volume equates to approximately 660 scfm per basin. Each basin will have a dedicated blower rated for 1,750 scfm which exceeds 660 scfm per basin.

2.1 lbs of O2 per lb of VSS destroyed: 2.1 x 3,000 = 6,300 lbs O2/day or 263 lbs O2/hr. 1,750 scfm times 2 blowers and basins will provide 569 lbs O2/hr which exceeds 263 lbs O2/hr.

With 3% solids in each digester the SRT can be calculated as follows: 341,665 gal x 3.0% x 8.34 divided by 4,210 lbs wasted per day = 20.3 days.

Aeration capability remains unchanged in the sludge storage basin. Sludge is stored until ultimate disposal by land application.

Addition of Aeration Equipment in Existing Oxidation Ditches:

Removing the trickling filter towers from the treatment scheme reduces the aeration capacity of the activated sludge process. To help mitigate this issue the primary clarifiers are being reinstated to reduce the load sent to the activated sludge basins. The existing activated sludge process includes anerobic, anoxic, and aerobic basins (oxidation ditches). The two racetrack type oxidation ditches are currently aerated with 5 brush rotors in each ditch. To meet the total oxygen demand additional aeration equipment will be provided. To make space for the additional equipment four of the ten brush rotors will be removed. The two oxidation ditches provide approximately 2.7 million gallons of volume.

The additional equipment consists of four 100 hp positive displacement blowers and aeration equipment in the basins. The aeration equipment will be wall mounted retrievable diffuser racks. To ensure adequate basin velocity four new mixers are being provided in each ditch. The blowers will be controlled via a PID loop using VFD's and D.O. probes for process optimization and energy savings. An additional blower is not necessarily provided for redundancy, however, there are four blowers and six remaining brush rotors. With one brush rotor or blower out of service the design conditions are still satisfied.

The total oxygenation provided by the two different types of aeration equipment equals approximately 2,909 pounds of oxygen per hour at standard conditions. This is more than the daily design requirement of 2,581 lbs oxygen per hour at design conditions (10,325 lbs BOD/day x 1.32 lbs oxygen/lb BOD + 2,725 lbs TKN/day x 4.6 lbs oxygen/lb TKN). The preceding assumes full time utilization of the aeration equipment. Cycling of the aeration equipment is not required for nitrification/denitrification since anerobic and anoxic basins are provided with existing recycle pumps.

The average organic loading to the oxidation ditches at design conditions equals 10,325 lbs BOD per 2.7 MG, or 29 lbs. BOD/1000 cf-d. Assuming a mixed liquor concentration of 3,000 mg/L with 80 percent volatile suspended solids, the food to microorganism ratio equals 0.19 lb BOD/lb MLVSS-day. These loadings are typical of a conventional activated sludge process. At design conditions, the hydraulic detention time equals 2.7 MG/6 mgd, or 10.8 hours, which is slightly longer than a conventional activated sludge system, but shorter than an extended aeration system.

Jared Nichols, P.E. Allgeier, Martin and Associates, Inc.

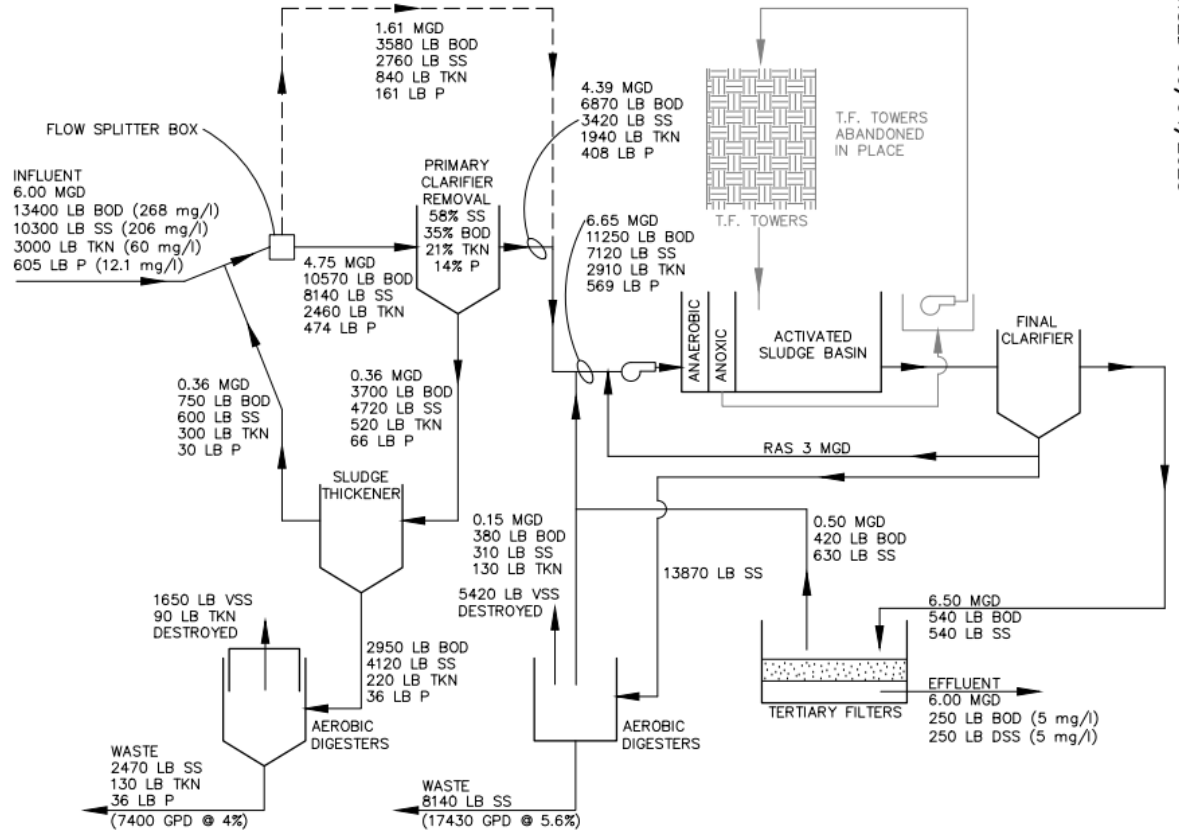
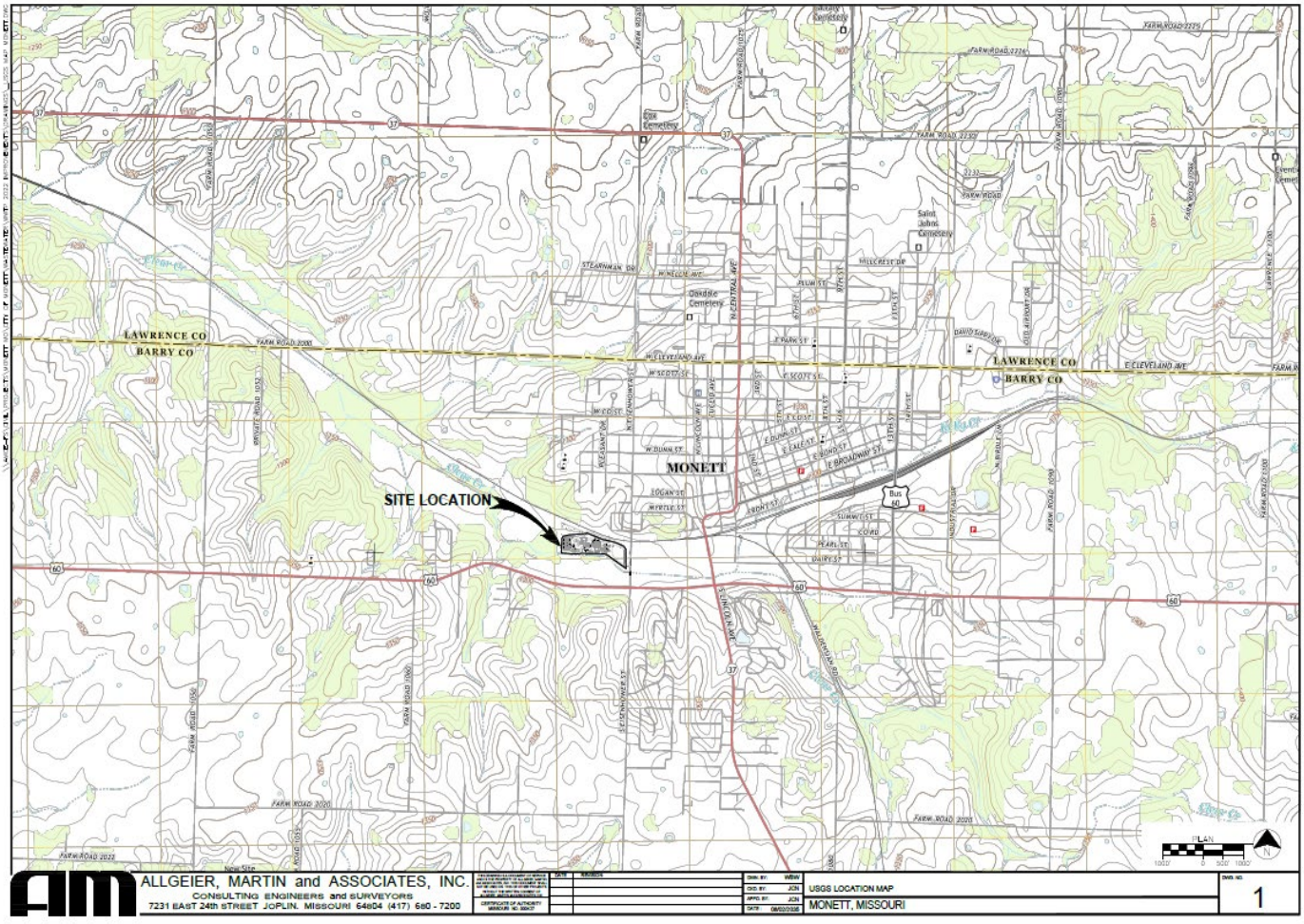


FIGURE 1
MONETT WWTP PROCESS FLOW DIAGRAM W/ PLANT LOADINGS

REVISED 06/04/2025

APPENDIX B - PROJECT MAP


SITE LOCATION
MONETT
LAWRENCE CO
BARRY CO
LAWRENCE CO
BARRY CO
ALLGEIER, MARTIN and ASSOCIATES, INC.
CONSULTING ENGINEERS and SURVEYORS
7231 EAST 24th STREET JOPLIN, MISSOURI 64804 (417) 680 - 7200
USGS LOCATION MAP
MONETT, MISSOURI
1

CP0002512 AP46281

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 $1,000	CHECK NO. 51287
DATE RECEIVED 8/30/24 JB	

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: SRF Project #: C295923-01

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: 7/29/24 ☐ 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
WWTP Improvements Project C295923-01

2.2 ESTIMATED PROJECT CONSTRUCTION COST
$ 5,536,000

2.3 PROJECT DESCRIPTION
Adding aeration equipment at the existing activated sludge basins, reinstatement of two primary clarifiers and one gravity sludge thickener, and converting two anerobic digesters to aerobic digesters, with associated pumps, piping, electrical, and site work.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Liquid land applied (unchanged)

2.5 DESIGN INFORMATION
A. Current population: 9,789 ; Design population: 74k
B. Actual Flow: 2.7 gpd; Design Average Flow: 6.0 gpd;
Actual Peak Daily Flow: 11.0 gpd; Design Maximum Daily Flow: 12.0 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 At end of summary of design

3.0 WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Monett WWTP	(417) 235-7455	skipschaller@monettmo.gov

ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE	COUNTY
50 N Eisenhower St	Monett	MO	65708	Barry

Wastewater Treatment Facility: Mo- (Outfall Of)

3.1 Legal Description: _____ ¼, _____ ¼, _____ ¼, Sec. 36, T 26N, R 28W
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): 416243 Northing (Y): 4086034
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: Clear Creek (C) (losing)

4.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
City of Monett	417-235-3763	skipschaller@monettmo.gov

ADDRESS	CITY	STATE	ZIP CODE
217 5th St	Monett	MO	65708

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 as Owner		

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
Jared Nichols PE / Allgeier Martin and Assoc. Inc.	417-680-7256	jared.nichols@amce.com

ADDRESS	CITY	STATE	ZIP CODE
7231 E. 24th St	Joplin	MO	64804

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 Skip Schaller

PRINTED NAME	DATE
Skip Schaller	8/22/2024

TITLE OR CORPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Utilities Superintendent	417-235-3763	skipschaller@monettmo.gov

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.

PART B – LAND APPLICATION ONLY
(Submit only if the proposed construction project includes land application of wastewater.)

8.0 FACILITY INFORMATION

8.1 Type of wastewater to be irrigated: ☐ Domestic ☐ State/National Park ☐ Seasonal business
☐ Municipal ☐ Municipal with a pretreatment program or significant industrial users
☐ Other (explain) _____

8.2 Months when the business or enterprise will operate or generate wastewater:
☐ 12 months per year ☐ Part of the year (list months): _____

8.3 This system is designed for:
☐ No-discharge.
☐ Partial irrigation when feasible and discharge rest of time.
☐ Irrigation during recreational season, April – October, and discharge during November – March.
☐ Other (explain) _____.

9.0 STORAGE BASINS

9.1 Number of storage basins: _____ (Use additional pages if greater than three basins.)

9.2 Type of basins: ☐ Steel ☐ Concrete ☐ Fiberglass ☐ Earthen ☐ Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.
Basin #1: Length _____ Width _____ Depth _____ Freeboard _____ Depth _____ Safety _____ % Slope _____
Basin #2: Length _____ Width _____ Depth _____ Freeboard _____ Depth _____ Safety _____ % Slope _____
Basin #3: Length _____ Width _____ Depth _____ Freeboard _____ Depth _____ Safety _____ % Slope _____

9.4 Storage Basin operating levels (report as feet below emergency overflow level).
Basin #1: Maximum operating water level _____ ft Minimum operating water level _____ ft
Basin #2: Maximum operating water level _____ ft Minimum operating water level _____ ft
Basin #3: Maximum operating water level _____ ft Minimum operating water level _____ ft

9.5 Design depth of sludge in storage basins.
Basin #1: _____ ft Basin #2: _____ ft Basin #3: _____ ft

9.6 Existing sludge depth, if the basins are currently in operation.
Basin #1: _____ ft Basin #2: _____ ft Basin #3: _____ ft

9.7 Total design sludge storage: _____ dry tons and _____ cubic feet

10.0 LAND APPLICATION SYSTEM

10.1 Number of irrigation sites _____ Total Acres _____ Maximum % field slopes _____
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ Acres
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ Acres
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ Acres
(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation: ☐ Grass hay ☐ Pasture ☐ Timber ☐ Row crops
☐ Other (describe) _____

10.3 Wastewater flow (dry weather) gallons per day: Average annual _____ Seasonal _____ Off-season _____

10.4 Land application rate (design flow including 1-in-10 year storm water flows):
Design: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week
Actual: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week

10.5 Total irrigation per year (gallons): Design: _____ gal Actual: _____ gal

10.6 Actual months used for irrigation (check all that apply):
☐ Jan ☐ Feb ☐ Mar ☐ Apr ☐ May ☐ Jun ☐ Jul ☐ Aug ☐ Sep ☐ Oct ☐ Nov ☐ Dec

10.7 Land application rate is based on:
☐ Hydraulic Loading ☐ Other (describe) _____
☐ Nutrient Management Plan (N&P) If N&P is selected, is the plan included? ☐ YES ☐ NO