STATE OF MISSOURI DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



GENERAL PERMIT for SEWER EXTENSION CONSTRUCTION

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

Construction Permit ID: MOGC00872
Title of Project: Marshfield WWTP
Owner: City of Marshfield
Address: 798 S Marshall St
Marshfield, MO 65706

The project will also include general site work appropriate to the scope and purpose of the project and will include all the necessary appurtenances to make a complete and usable collection system. The construction of this project will be in the vicinity of the county below and discharge to Receiving Permit ID below:

County: Webster Receiving Permit ID: MO0040843

for the construction of (described construction project):

Marshfield Planning Expansions - Construction of approximately 2,708 lf of 8-inch SDR-21 and SDR-35 PVC and approximately 5,345 lf of 18-30-inch PVC (PS 46 or 115) gravity sewer lines, with approximately 37 manholes, approximately 860 lf of 4-inch class 200 SDR-21 PVC force main, and upgrading Lift Station 13 to include two pumps each capable of pumping at 155 gpm against 88 ft TDH, to serve an additional design average flow of 571,785 gpd (5,718 PE).

Project is in the vicinity of N Marshfield Rd and Ferndale Dr in Marshfield, Webster County, and discharges to an existing system to be treated at the Marshfield WWTF, MO-0040843. Sam Rost, City Administrator, signed the application.

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.

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

April 22, 2025	John Joke	
Issue Date	John Hoke, Director	
	Water Protection Program	
April 21, 2027		
Expiration Date		

APPLICABILITY

- 1. This permit authorizes the construction of gravity sewer extensions, force mains, and lift stations. Non-earthen flow equalization storage basins at lift stations and inline storage, which flows back into the lift station or collection system, are also included.
- 2. The Missouri Department of Natural Resources may require a site-specific sewer extension construction permit due to compliance and enforcement actions in accordance with 10 CSR 20-6.010(13)(C).
- 3. This permit does not apply to:
 - A. Earthen storage basins;
 - B. Exempt projects in accordance with 10 CSR 20-6.010(1)(B), 10 CSR 20-6.010(5)(B), and RSMo 644.051 unless requested by the applicant or required by enforcement.

PREREQUISITES:

- 1. The Sewer Extension Construction Permit application, appropriate fee, and documentation in accordance with 10 CSR 20-6.010(5)(G).
- 2. Submit the Sewer Extension Construction Permit application at least sixty (60) days in advance of the start of construction in accordance with 10 CSR 20-6.010(5)(F).
- 3. Submit an electronic copy of the construction permit application and documents to DNR.WPPEngineerSection@dnr.mo.gov in accordance with 10 CSR 20-6.010(5)(G)3.
- 4. The plans and specifications, each signed, sealed, and dated by a professional engineer registered in the State of Missouri in accordance with 10 CSR 20-8 and 10 CSR 20-6.010.
- 5. The Design Certification form, Engineering Report, or Summary of Design, signed, sealed, and dated by a professional engineer registered in the State of Missouri, certifying the design of the system is in accordance with 10 CSR 20-6 and 10 CSR 20-8.
- 6. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting the wastewater for treatment and indicating the permitted treatment facility has the available capacity.
- 7. A statement from the continuing authority, as defined in 10 CSR 20-6.010, accepting responsibility for the operation and maintenance of these facilities.

PERMIT CONDITIONS:

- 1. This permit authorizes the activities and scope of work detailed in the plans and specifications submitted with the request.
- 2. The construction must be in accordance with the final plans and specifications received by the Department. Revisions that affect capacity, flow, or system layout must be approved by the Department prior to construction.

PERMIT CONDITIONS: (continued)

- 3. If construction will incorporate minor changes from previously submitted plans and specifications (i.e., changes that do not affect the capacity, flow, or system layout), submit an electronic copy of the as-built plans and specifications in accordance with 10 CSR 20-8.110(11).
- 4. State and Federal Law does not permit bypassing of raw wastewater; therefore, the applicant must take steps 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 regional office per 10 CSR 20-7.015(9)(E) or through the Online Bypass/SSO Reporting service on the Missouri Gateway for Environmental Management (MoGEM) portal found at https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem.

See https://dnr.mo.gov/document-search/missouri-gateway-environmental-management-mogem-frequently-asked-questions-pub2988/pub2988 for more information.

- 5. Protection of drinking water supplies must meet the requirements of 10 CSR 20-8.120(5).
 - A. There shall be no physical connections between a public or private potable water supply system and a sewer or appurtenance that would permit the passage of any wastewater or polluted water into the potable supply.
 - B. Lay sewers at least 50 feet (50') in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures.
- 6. Position manholes so that the top access is at or above grade level.
- 7. In addition to the requirements for a construction permit, see 10 CSR 20-6.200 for land disturbance requirements 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. Applicants shall obtain land disturbance permits through the Department's ePermitting system, available online at <a href="https://dnr.mo.gov/data-e-services/water/electronic-permitting-ep

See https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/stormwater/construction-land-disturbance for more information.

8. Entities applying for funding under 10 CSR 20-4, "Grants and Loans" will need to comply with those requirements in addition to the requirements of 10 CSR 20-8.

PERMIT CONDITIONS: (continued)

9. The Department may require a United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) or a permit waiver for the activities described in this permit. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S., then a 404/401 is required. Fulfillment of these requirements is necessary before the permit is considered valid. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the Department's 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.

- 10. If this project eliminates a wastewater treatment facility under the jurisdiction of the Department, then the applicant shall submit a full closure plan with a Facility Closure Request Form, Form MO 780-2512, to the Department's appropriate regional office for review and approval. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III of the Missouri State Operating Permit. Closure shall not commence until the Department approves the submitted closure plan.
- 11. If this project is part of a project to resolve an enforcement action or is receiving funding from the Department, submit a <u>statement of work complete</u> following the completion of construction.
- 12. Applicants may submit, prior to the expiration date of this permit, a written request that additional time is needed in accordance with 10 CSR 20-6.010(5)(H)3.



MISSOURI DEPARTMENT OF NATURAL RESOURCES

WATER PROTECTION PROGRAM APPLICATION FOR CONSTRUCTION PERMIT – SEWER EXTENSION

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

			DATE RECEIVED				
NOTE ► Please Read the accompanying i	nstructions before completing t	this form	·				
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 Age	ency: MODN	NR Pro	ject #: SIP-6			
1.2 Has the Department of Natural Resource ☐ YES Date of Approx		s engineering ☑ NO	g report*?	□ N/A			
1.3 Is a copy of the appropriate plans* and s	pecifications* included with this ap	oplication?	✓ YES □ NO				
If the project is using standard specificat	ions, name of community:						
1.4 Is a summary of design* included with the	is application? 🗹 YES 🗌 No	0					
1.5 Is the appropriate fee or JetPay confirmation See Section 7.0	ation included with this application	? ✓ YES	□NO				
* Must be affixed with a Missouri registered p	professional engineer's seal, signa	ture and date	э.				
2.0 PROJECT INFORMATION 2.1 NAME OF PROJECT							
City of Marshfield Planning Expansions - Coll	ection System						
ADDRESS	CITY	STATE	ZIP CODE	COUNTY			
798 S Marshall St 2.2 Legal Description: 1/4, 1/2	Marshfield 4,	MO	65706 R 18W	Webster			
2.2 Legal Description. 74, 7	74, 74, 066. 33,34,33 ,	i 31N ,	1 1844				
2.3 Project Components (check all that apply ☑ Gravity sewers ☑ Pumping station 2.4 PROJECT DESCRIPTION		itive sewer sy	ystem Other (E	Describe below.)			
This project involves the establishment of sewer infrastructure to support development near the Marshall Rd. / I-44 interchange. This infrastructure will also serve as a foundation for future sewer extension projects to the northwest, north, and northeast of the interchange. Lift Station 6 will be decommissioned and the primary gravity trunk line will be rerouted around the existing sewer collection system via a new gravity main to the treatment facility through a new casing bore under I-44. The capacity of Lift Station 8 will be enhanced by rerouting the force main from Lift Station 13.							
2.5 DESIGN INFORMATION A. Population or number of lots to be served	by this extension: approx 3 500 :	acres					
B. Estimated flow to be contributed by this e			Design Peak Hourl	y Flow: 49,680 gph			
C. Industrial Wastes: Type: N/A	Flow: gpd	01	3				
D. Receiving Sewer: Size: 30 inches							
E. Does this project (check all that apply):	, , , , , , , , , , , , , , , , , , ,						
✓ Connect to an existing treatment plant ☐ Resolve enforcement issue ☐ Eliminate or consolidate an existing treatment plant							
	F. Estimated number of onsite systems being removed: 0						
G: Estimated costs associated with piping: \$ 2,030,660 Estimated costs associated with lift station(s): \$							
3.0 PROJECT OWNER							
NAME	TELEPHONE NUMBER WITH AI	REA CODE	EMAIL ADDRESS				
City of Marshfield ADDRESS	(417) 468-2310	STATE	samrost@marshfi	eldmo.gov			
798 S Marshall Street	Marshfield	MO	65706				
CHARTER NUMBER (SECRETARY OF STATE) or REGISTERED	AGENT						

MO 780-1632 (10-22)

4.0 CONTINUING AUTHORITY: A continuir for ensuring compliance with the permit required Continuing authority should be a relatively purply when needed, of the permitted facility or activated by the permittee to sample or operate analytical laboratory. To access the regulated Water Commission Chapter 6. A continuing (SoS's) webpage: Missouri Secretary of State required to register with the SoS.	uirements and ermanent e ivity. A cont and maintai ory requirem authority's i	nd provide ntity respo inuing autl in the syste ent regard name mus	continuous ansible for the nority is not, lem for a definiting continuir to be listed ex	stable over e ongoing o however, a ned time pe ng authority actly as it a	sight of the permitted facility or activity. The peration, maintenance and modernization, n entity or individual that is contractually eriod, such as a certified operator or 1, 10 CSR 20-6.010(2), please visit Clean appears on the Missouri Secretary of State's	
NAME			NUMBER WITH A	REA CODE	EMAIL ADDRESS	
City of Marshfield ADDRESS	CITY	(417) 468	-2310	STATE	samrost@marshfieldmo.gov	
798 S Marshall Street	Marshfield	d		MO	65706	
CHARTER NUMBER (SECRETARY OF STATE)						
4.1 Has appropriate continuing authority acc A letter from the continuing authority accepti different than the original owner of the const Treatment Facility Acceptance" Form 780-25 5.0 ENGINEER	ng responsi ruction), or	bility for co a properly	ontinued mai executed "C	ntenance o	f the sewer (if the continuing authority is authority and Receiving Wastewater	
ENGINEER NAME / COMPANY NAME		TELEPHONE	NUMBER WITH A	REA CODE	EMAIL ADDRESS	
Jacob Dean / Great River Engineering	CITY	417-886-7	171	STATE	jdean@greatriv.com	
2826 S. Ingram Mill Rd	Springfield			MO	65804	
6.0 RECEIVING WASTEWATER TREATME	NT FACILI	NAME OF TAXABLE PARTY.				
NAME Marshfield Sewer Treatment		TELEPHONE NUMBER WITH AREA CODE (417) 468-2310			EMAIL ADDRESS thathcock@marshfieldmo.gov	
MISSOURI STATE OPERATING PERMIT # MO-0040843		COUNTY			REMAINING CAPACITY (GPD) 630,000	
6.1 If different from the owner, has a letter be accept the expanded flow or has a properly of MO 780-2584 form been provided? YE 6.2 A letter from the receiving wastewater tree YES NO N/A 6.3 If the receiving treatment plant or continuous	executed Comment in NO eatment faci	ontinuing A N/A N/A lity, if diffe y is regula	Authority and rent than the	Receiving	Wastewater Treatment Facility Acceptance authority, is included with this application.	
Certificate of Convenience and Necessity ha OPTIONAL QUESTIONS REGARDING MIL			Yes – Date	; ====================================	□ No 🗹 N/A	
Have you or an immediate family member ev						
U.S. Armed Forces?			□ Y	es	☑ No	
If yes, would you like information about milita in Missouri?	ry-related s	ervices	□Y	es	✓ No	
7.0 Application Fee						
☐ Check Number					on Number 20062656	
8.0 PROJECT OWNER: I certify under penal supervision in accordance with a system des submitted. Based on my inquiry of the persor gathering the information, the information submitted aware there are significant penalties for submit violations. PROJECT OWNER SIGNATURE	igned to ass n or persons bmitted is, to	sure qualif s who man o the best	ied personne age the syst of my knowle	el properly of em, or those edge and be	gather and evaluate the information be persons directly responsible for elief, true, accurate and complete. I am	
PRINTED NAME Sam Rost					DATE 3/12/25	
TITLE OR CORPORATE POSITION City Administrator		TELEPHONE NUMBER WITH AREA CODE		REA CODE	EMAIL ADDRESS	
•](417) 468-2	2310	_	samrost@marshfieldmo.gov	
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM PO BOX 176			Submit completed electronic copy to: Missouri Department of Natural Resources at DNR.WPPEngineerSection@dnr.mo.gov			

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9.0 SEWER EXTENSION CHECKLIST							
		ESIGN CERTIFICATION: Answer all questions yes or N/A. Answer N/A only if the question is of the proposed sewer extension.	clearly r	not			
	REGULATION		YES	N/A			
1.	8.110(3)(A)	Is the design flow based on actual flow data for an existing system?	>				
2.	8.110(3)(B)	Are average design flows, peak hourly flows and I&I contributions for new systems calculated?					
3.	8.110(9)(B)	Is there a detailed plan showing tributary area, boundaries, pertinent elevations, topography, existing and proposed facilities?	✓				
4.	8.120(2)	Does the sewer exclude water from roofs, streets, groundwater from foundation drains and combined wastewater?	✓				
5.	8.120(3)(A)	Is the pipe installation, embedment and backfill designed to prevent damage to the pipe and its joints?	\				
6.	8.120(3) (A)1	Is all sewer pipe constructed with a slope to obtain mean velocities of not less than 2 feet per second?	>				
7.	8.120(3)(A)2	Is the pipe covered with at least 36" of soil or sufficiently insulated to prevent freezing?	>				
8.	8.120(3)(B)	Is deflection testing specified to ensure no pipe exceeds a deflection of 5% of the inside diameter?	V				
9.	8.120(4)(A)	Are manholes located at the end of each line, at all changes in grade, size or alignment and at all intersections?	>				
10.	8.120(4)(C)	Are manholes at least 42 inches in diameter with a clear opening of 22 inches on sewer line larger than 8"?	>				
11.	8.120(4)(C)	Where cleanouts are used at the end of a lateral instead of a manhole, they are a minimum diameter of 8 inches or larger and equal to the diameter for pipes < 8"?	\				
12.	8.120(4)(E)	Are the manholes watertight, constructed and installed in accordance with the	>				
13.	8.120(4)(F)	manufacturer's recommendations and procedures? Do the specifications include a requirement for inspection and testing for manholes?					
14.			✓				
15.	8.120(5)(A) 8.120(5)(B)	Is the sewer free from physical connections to a potable water supply system and no water pipes come in contact with a sewer manhole? Are sewers and manholes located at least 50 feet horizontally from any existing or	✓				
15.	6.120(5)(B)	proposed water supply well, sources, structures?	✓				
10.0 PRESSURE SEWERS, GRINDER PUMP, STEP AND STEG SEWER CHECKLIST							
	REGULATION		YES	N/A			
16.	8.125(5)(A)1.	Does the cleaning velocity of ≥ 2 ft/s happen more than once per day?	>				
17.	8.125(5)(A)2.	Is the diameter of the pressure sewer main pipe at least 1.5"?	>				
18.	8.125(5)(B)	Are appurtenances compatible with the piping system?	>				
19.	8.125(5)(B)2.	Are isolation valves located: upstream of major pipe intersections; both sides of stream, bridge and RR crossings; at terminal end of system?		✓			
20.	8.125(5)(C)	Do service line pipes have a minimum diameter of 1.25"?		✓			
21.	8.125(5)(D)1.A	Do simplex grinder pump stations service only a single equivalent dwelling unit (EDU)? i.e. 1 residence – 1 grinder pumpt.		V			
22.	8.125(5)(D)1.B	Are multiple unit pump stations owned, operated and maintained by an approved continuing authority?		V			
23.	8.125(5)(D)3.	Is there at least 70 gallons of storage in the grinder pump unit?		V			
24.	8.125(5)(D)4.	Do grinder pump stations have shutoff valves, check valves and anti-siphon valves (where siphoning could occur) that are accessible from the ground surface?		V			
25.	8.125(5)(D)7., 8.130(3)(B)2.	Are units serviceable and replaceable under wet conditions without electrical hazard and is electrical equipment suitable for hazardous locations (National Electrical Code, Class I, Group D, Division 1 location)?		V			
26.	8.125(5)(D)8., 8.125(2)(F)6.	Are provisions in place to avoid interruption of service due to mechanical or power failure by providing standby power, storage capacity, or interconnection with another disposal system?		V			
27.	8.125(6)(D)	In a STEP system is at least one septic tank (1,000 gallons or more) provided for each EDU with 20% of tank volume dedicatied to freeboard and ventillation?		V			
28.	8.125(6)(F)	Are duplex pumps provided for the design flow of 1,500 gallons or greater?					

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11.0 PUMP STATION CHECKLIST								
	REGULATION					YES	N/A	
29.	8.125(7)(C)	Is the minimum diameter sewer main pipe and service line of STEG sewer at least 4"?				✓		
30.	8.130(2)(A) 8.140(2)(B)	Is the pump statio	n designed to withstan	d the 100-year flood?			\	
31.	8.130(3)(A)	Is the dry well con access provided to		the wet well and is a su	uitable and safe means of		V	
32.	8.130(3)(B)	If the design flow provided?	is 1,500 gpd or more, a	are there at least 2 pum	nps or pneumatic ejectors		✓	
33	8.130(3)(D)		d outside wet well unle	ss integral to a pump o	r its housing?		V	
34.	8.130(3)(F) 8.140(8)(J)	Do wet and dry wells have separate ventilation systems?					✓	
35.	8.130(3)(G)	Does all potable v	vater brought to pump	stations comply with 8.	140(7)(D)?		✓	
36.	8.130(6)	ls an alarm syster	n provided with uninter	rupted power?			✓	
37.	8.130(7)(A)			urly flow for a design flosing flow < 100,000 gp	ow > 100,000 gpd or 4 hrs d?		<u> </u>	
38.	8.130(7)(B)	Are there indepen		provided for emergence	cy power capable of starting		✓	
39.	8.130(8)(A)		velocity of ≥ 2 ft/s main			✓	П	
40.	8.130	emergency proced			ons provided that include and spare parts that may be		<u> </u>	
12.0 S	L SUCTION LIFT PU	necessary? MP AND SUBMER	SIBLE PUMP STATIO	N CHECKLIST				
	REGULATION					YES	N/A	
41.	8.130(4)	Are the suction lift	pumps of the self prim	ning or vacuum priming	type?	П	V	
42.	8.130(4)(A)		Is the combined total of dynamic suction lift at the "pump off" elevation and required net positive suction head at design operating conditions less than or equal to 22 feet?					
43.	8.130(4)(B)	Are there dual vac	cuum pumps capable c	of removing air from the	suction lift nump?		V	
44.	8.130(5)(A)	Are submersible pumps readily removable and replaceable without personnel entering, or					▼	
13 0 9	disconnecting any pipe in the wet well? 13.0 SEWER EXTENSION CHECKLIST CERTIFICATION STATEMENT							
For any questions answered "N/A" provide an explanation. Also provide any useful general comments regarding design for review engineer. Lift Station 13 force main realignment requires the replacement of the existing pumps. No other changes to occur at the lift station. Gravity extensions (Lines A, AB, AC, AD, AE) are all intended to decommission a regional lift station (Day 1 flow) and to provide gravity sewer lines for future connections (growth areas). Day 1 flows are what has been provided in the 2.5.B response to "Estimated flow to be contributed by this extension". The gravity extension will be connecting to a new gravity line at the existing WWTF, under a separate project/permit application.								
Missouri Professional Engineer's seal, signature and date: JACOB C. DEAN NUMBER PE-2023008649 3/12/2025 ONAL ENGINEER DEAN DEAN NUMBER PE-2023008649 ONAL ENGINEER ON								
Name: Jacob Dean - Great River Engineering								
Address: 2826 S. ingram Mill Rd.								
City: Springfield State: MO ZIP Code: 65804								
Telephone Number with Area Code: 417-886-7171 Email:jdean@greatriv.com								