

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Missouri Department of Natural Resources
Division of State Parks
1659 East Elm Street, P.O. Box 176
Jefferson City, MO 65102-0176

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.

September 15, 2015
Effective Date

September 14, 2016
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

Director, Water Protection Program

CONSTRUCTION PERMIT

COLLECTION SYSTEM:

The proposed wastewater collection system will consist of a conventional sewer system with lift stations and force mains, which will carry raw wastewater to an existing wastewater collection system that will carry the raw wastewater to the receiving wastewater treatment facility. The proposed wastewater collection system will consist of the installation of the following approximate sewer line lengths:

Polyvinyl Chloride (PVC) Gravity Sewer Pipe	PVC Pressure Sewer Force Main
16 linear feet (lf) of four-inch PVC	26,083 lf of two-inch PVC
70 lf of six-inch PVC	11,334 lf of three-inch PVC
102 lf of eight-inch PVC	46,960 lf of four-inch PVC

In addition there will be two simplex lift stations and 12 duplex lift stations and all necessary appurtenances to make a complete and usable wastewater collection system to serve an estimated 117,847 gallons per day.

These wastewater facilities will be in the vicinity of the Lake of the Ozarks State Park in the city of Kaiser, MO, in Camden and Miller Counties, and discharge to an existing sewer system to be treated at the Lake of the Ozark Regional Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0103241.

PERMIT CONDITIONS:

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

1. All construction shall be in accordance with the plans and specifications submitted by Darren Krehbiel Consultants, LLC. on July 30, 2015 and signed and sealed by Mr. Darren Krehbiel, P.E. on July 13, 2015 and approved by the department on September 15, 2015.
2. Regulation 10 CSR 20-4.040(19)(B)1 requires that projects be publicly advertised, allowing sufficient time for bids to be prepared and submitted. Projects should be advertised at least 30 days prior to bid opening.
3. The department must be contacted in writing prior to making any changes to the approved plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(8).

4. As per 10 CSR 20-4.040, all changes in contract price or time within the approved scope of work must be by change order in accordance with Section 20 of this rule.
5. This construction permit does not authorize discharge.
6. 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 Southwest Regional Office per 10 CSR 20-7.015(9)(E)2.
7. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10).

“There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole.”

 - A. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
 - B. Sewer mains shall be laid at least ten feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a ten foot separation, the department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
 - C. Manholes should be located at least ten feet horizontally from any existing or proposed water main.
 - D. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:

- 1) The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
 - 2) Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends ten feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the department for use in water main construction.
8. 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 may only be obtained by means of the department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm.

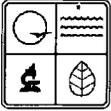
See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

9. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of Jurisdictional Waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the department's Water Protection Program at (573) 751-1300 for more information.

See www.dnr.mo.gov/env/wpp/401/ for more information.

10. A full closure plan shall be submitted to the department's Southwest Regional Office for review and approval of any permitted wastewater treatment system being replaced. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III, Section I, of the Missouri State Operating Permit No. MO-0097551, Lake of the Ozark State Park WWTF. 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 department's Southwest Regional Office for termination of any existing Missouri State Operating Permit, once closure is completed in accordance with the approved closure plan.
11. Upon completion of construction:
- A. The Department of Natural Resources – Division of State Parks will become the continuing authority for operation, maintenance, and modernization of these facilities until the system becomes accepted into the city of Osage Beach's collection system.

- B. Submit the enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(D); and
- C. Submit an electronic copy of the as builts.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
APPLICATION FOR CONSTRUCTION PERMIT
SEWER EXTENSION

RECEIVED
 AUG 13 2015

Water Protection Program

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

NOTE ► PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING 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 Agency: _____ Project #: X1301-01
- 1.2 Has the Department of Natural Resources approved the proposed project's engineering report*?
 YES Date of Approval: _____ NO N/A Submitted Herewith
- 1.3 Is a copy of the appropriate plans* and specifications* included with this application? YES NO
- 1.4 Is a summary of design* included with this application? YES NO
- 1.5 Is the appropriate fee included with this application? (See instructions for appropriate fee.) YES NO

* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Lake of the Ozarks State Park Sanitary Sewer Force Main

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
Lake of the Ozarks State Park	Kaiser	MO	65047	Camden/Miller

2.2 Legal Description: ¼, ¼, ¼, Sec. 7-33, T 39N, R 15W

2.3 Project Components (check all that apply):

- Gravity sewers Pumping stations Force mains Alternative sewer system Other (Describe below.)

2.4 PROJECT DESCRIPTION

The project consists of a pressure sewer system, complete with pressure lines and lift stations, to serve Lake of the Ozarks State Park and connect said proposed force main to the City of Osage Beach municipal sewer system.

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: 5 group camps, & 230 campsites
- B. Estimated flow to be contributed by this extension: Design Average Flow: _____ gpd Design Peak Hourly Flow: _____ gph
- C. Industrial Wastes: Type: N/A Flow: _____ gpd
- D. Receiving Sewer: Size: _____ inches Capacity: _____ gpm Osage Beach city sewer system

3.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
Division of Parks	(573) 522-6390		
ADDRESS	CITY	STATE	ZIP CODE
PO Box 176	Jefferson City	MO	65102

4.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
Division of Parks	(573) 522-6390		
ADDRESS	CITY	STATE	ZIP CODE
PO Box 176	Jefferson City	MO	65102

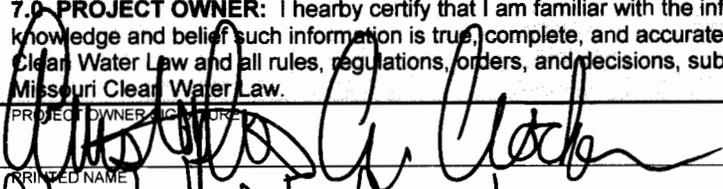
4.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

5.0 ENGINEER

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
Darren Krehbiel/Darren Krehbiel Consultants LLC	(573) 346-5316	dkc@cdoc.net	
ADDRESS	CITY	STATE	ZIP CODE
63 Blair Ave	Camdenton	MO	65020

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
Lake Ozark/Osage Beach Joint Sewer Treatment Plan	(573) 302-2000		

MISSOURI STATE OPERATING PERMIT # MO-0103241		REMAINING CAPACITY (GPD)	
6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A			
7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law.			
PROJECT OWNER SIGNATURE 			
PRINTED NAME Christopher E. Crocker		DATE 8-11-2015	
TITLE OR CORPORATE POSITION Planning + Development Director		TELEPHONE NUMBER WITH AREA CODE 573-751-5360	E-MAIL ADDRESS Chris.Crocker@dnr.mo.gov
Mail completed copy to:		MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176	