



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

July 30, 2015

The Honorable Robert Vinyard, Mayor
Village of Caledonia
130 Webster Road
Caledonia, MO 63631

RE: SBS-162-14 Village of Caledonia, MO – Lagoon Disinfection Facilities, Caledonia
Wastewater Treatment Facility (WWTF), MO-0128571, Construction Permit No.
CP0001741

Dear Mayor Vinyard:

The Department of Natural Resources' Water Protection Program has reviewed and approved the plans and specifications submitted by Taylor Engineering, LLC for the village of Caledonia. Please find enclosed Construction Permit No. CP0001741 and one set of approved specifications. One set of approved plans has been sent under separate cover by Mrs. Emily Carpenter of my staff. You must maintain these with your official project file for a minimum of four years following completion of the project.

This permit will terminate 12 months from the date of issuance. In accordance with 10 CSR 20-6.010(4)(G), the department may grant an extension only one time. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the permit expiration date.

Nothing in this permit removes any obligations to comply with county or other local ordinances or restrictions.

If you were adversely affected by this decision, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with the Administrative Hearing Commission 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 Administrative Hearing Commission.

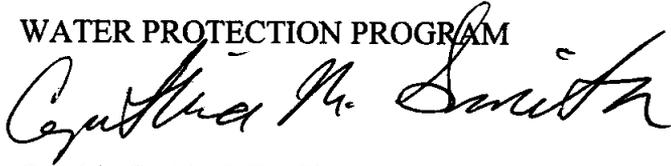
The Honorable Robert Vinyard, Mayor
July 30, 2015
Page 2

If you have any questions concerning this matter, please contact Mrs. Carpenter, of the Water Protection Program, at (573) 751-6569 or Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



Cynthia Smith, P.E., Clean Water SRF Engineering Unit
Financial Assistance Center

CMS:ecc

Enclosures

- c: Mr. Tim Robbs, P.E., Taylor Engineering, LLC
Mr. Jeff Korman, Senior Grant Administrator, Meramec Regional Planning Commission
Southeast Regional Office
Ms. Joan Doerhoff, Water Protection Program, Compliance and Enforcement Section
Mrs. Emily Carpenter, Water Protection Program, Financial Assistance Center
Mr. Jeremy Payne, Water Protection Program, Financial Assistance Center

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Village of Caledonia
130 Webster Road
Caledonia, MO 63631

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.

July 30, 2015
Effective Date

July 29, 2016
Expiration Date

Sara Parker Pauley, Director, Department of Natural Resources

Director, Water Protection Program

CONSTRUCTION PERMIT

WASTEWATER TREATMENT FACILITY:

The proposed wastewater treatment facility improvements will consist of adding ultraviolet disinfection (UV). This facility shall meet the water quality standards for the Tributary to Goose Creek and the effluent requirements of the Caledonia Wastewater Treatment Facility, Missouri State Operating Permit No. MO-0128571 after construction.

The UV system shall be capable of providing continuous disinfection and treating an average daily flow of 20,000 gallons per day (gpd) and a peak flow of 350,000 gpd. A method for level control and a monitoring system shall be provided. In order to control flow to the UV system during the recreational season, this project also consists of the installation and construction of approximately 49 linear feet (lf) of eight-inch ductile iron pipe (DIP) gravity sewer lines with approximately two gate valves.

In addition, the project includes the construction and installation of all necessary appurtenances to make a complete and usable wastewater treatment facility. The project will also include general site work appropriate to the scope and purpose of the project.

COST ANALYSIS FOR COMPLIANCE:

Pursuant to Section 644.145, RSMo, the department is required to determine whether a permit or decision is affordable and make a finding of affordability for each permit or decision.

The Cost Analysis for Compliance is not applicable. This construction permit does not include new environmental requirements beyond what is already required by the Caledonia WWTF MSOP No. MO-0128571.

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 Taylor Engineering, LLC on June 11, 2015 and signed and sealed by Mr. Tim Robbs, P.E., on June 8, 2015 and approved by the department on July 30, 2015.
2. 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).

3. This construction permit does not authorize discharge.
4. State and Federal Law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the department's Southeast Regional Office per 10 CSR 20-7.015(9)(E)2.
5. 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.
6. 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.

7. 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.

8. Upon completion of construction:
 - A. The village of Caledonia will become the continuing authority for operation, maintenance, and modernization of these facilities;
 - 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 built.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
**APPLICATION FOR CONSTRUCTION PERMIT –
 WASTEWATER TREATMENT FACILITY**

RECEIVED

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED <u>1000⁰⁰</u>	CHECK NO. <u>2757</u>
DATE RECEIVED <u>3/9/15</u>	

AP 20846 CPO001741 SBS-162-14 MAR 09 2015

J.S.

Folder Tracking # C14564

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: DNR Project #: _____
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
 YES Date of Approval: _____
- 1.3 Has the department approved the proposed project's facility plan*?
 YES Date of Approval: _____ NO N/A (If Not Applicable, complete No. 1.4.)
- 1.4 [Complete only if answered Not Applicable on No. 1.3.] Is a copy of the engineering report* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?
 YES NO
- 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 submittal. Denote which form: A B B2
 N/A Please explain: _____
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? YES NO
- 1.9 Is the appropriate fee included with this application? YES NO (See instructions for appropriate fee.)

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

2.0 PROJECT INFORMATION

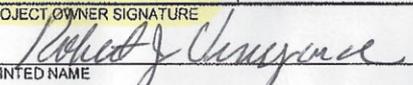
2.1 NAME OF PROJECT
Caledonia UV Disinfection

2.2 PROJECT DESCRIPTION
 The project consists of the installation of a UV Disinfection system and all the necessary piping and appurtenances necessary to make the system complete and useable.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Stored in the Lagoon

2.4 DESIGN INFORMATION
 A. Current population: 130; Design population: 200
 B. Actual Flow: 14,800 gpd; Design Average Flow: 20,000 gpd;
 Actual Peak Daily Flow: 15,538 gpd; Design Maximum Daily Flow: 184,320 gpd; Design Wet Weather Event: 300,000

2.5 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 Caledonia Wastewater Treatment Facility		TELEPHONE NUMBER WITH AREA CODE (573) 779-3492	E-MAIL ADDRESS	
ADDRESS (PHYSICAL) 130 Weber Road	CITY Caledonia	STATE MO	ZIP CODE 63631	COUNTY Washington
Wastewater Treatment Facility: Mo- 0128571 (Outfall 1 Of 1)				
3.1 Legal Description: <u> </u> ¼, <u> NW </u> ¼, <u> NW </u> ¼, Sec. <u> 2182 </u> , T <u> 35N </u> , R <u> 2E </u> (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): <u> 3746119 </u> Northing (Y): <u> -09047083 </u> For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: <u> Unnamed tributary to Goose Creek </u>				
4.0 PROJECT OWNER				
NAME Village of Caledonia		TELEPHONE NUMBER WITH AREA CODE (573) 779-3492	E-MAIL ADDRESS city029@centurytel.net	
ADDRESS PO Box 100	CITY Caledonia	STATE MO	ZIP CODE 63631	
5.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.				
NAME Same		TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE	
5.1 A letter from the continuing authority, if different than the owner, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> 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? <input type="checkbox"/> YES <input checked="" type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> 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? <input type="checkbox"/> YES <input type="checkbox"/> NO				
D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
6.0 ENGINEER				
ENGINEER NAME / COMPANY NAME Timothy D. Robbs, P.E., Taylor Engineering, LLC		TELEPHONE NUMBER WITH AREA CODE (573) 756-9226	E-MAIL ADDRESS trobbs@taylorengeeringllc.com	
ADDRESS 109 East Columbia	CITY Farmington	STATE MO	ZIP CODE 63640	
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. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.				
PROJECT OWNER SIGNATURE 				
PRINTED NAME Robert Vinyard			DATE 2-23-15	
TITLE OR CORPORATE POSITION Mayor		TELEPHONE NUMBER WITH AREA CODE (573) 779-3492	E-MAIL ADDRESS city029@centurytel.net	
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.				