

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 Brashear
P.O. Box 221
Brashear, MO 63533

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.

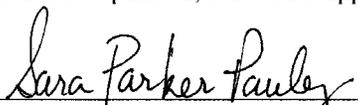
As the department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

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

The proposed no discharge system will consist of expanding the size of the first two cells of the existing lagoon system, removal of the third cell, removing the sludge from the existing cells, and the construction and installation of a spray irrigation system to handle the lagoon effluent. The proposed system will have a design flow of 44,000 gallons per day (gpd), a peak wet weather flow of 209,918 gpd, a maximum application rate of 42.7 inches per year, and an application field of 32 acres. The proposed irrigation system will be divided into five zones with five irrigation heads each. Each zone will be capable of delivering a flow rate of 534 gallons per minute.

The project includes the construction and installation of all necessary appurtenances to make a complete and usable no discharge system. The project will also include general site work appropriate to the scope and purpose of the project.

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 Benton and Associates on February 5, 2015 and February 19, 2015 and signed and sealed by Mr. Adam Dorrell, P.E. on February 3, 2015 and February 17, 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 Northeast 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. Upon completion of construction:
 - A. The city of Brashear 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.

CPO... APIN... C10863 AP14496-OPAD



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM B - APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT FOR FACILITIES WHICH RECEIVE PRIMARILY DOMESTIC WASTE (≤100,000 gallons per day) UNDER MISSOURI CLEAN WATER LAW

FOR AGENCY USE ONLY	
CHECK NUMBER	17503
DATE RECEIVED	2/11/13
FEE SUBMITTED	\$750.00

NOTE ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM

1. This application is for:

An operating permit and antidegradation review public notice.
 A construction permit following an appropriate operating permit and antidegradation review public notice.
 A construction permit and a concurrent operating permit and antidegradation review public notice.
 A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required).
 An operating permit for a new or unpermitted facility. Construction Permit # _____
 An operating permit renewal: Permit #MO- _____ Expiration Date _____
 An operating permit modification: Permit #MO- 0046990 Reason: CONV TO NO DISCHARGE

1.1 Is this a Federal/State Funded Project? YES NO Funding Agency/Project #: C295549-01
 1.2 Is the appropriate fee included with the application (See instructions for appropriate fee)? YES NO

2. **FACILITY (Outfall 1 of 1)**

NAME BRASHEAR WASTEWATER TREATMENT FACILITY		TELEPHONE WITH AREA CODE 660-323-5575	
ADDRESS (PHYSICAL) SW OF BRASHEAR ON COUNTY ROAD 285	CITY BRASHEAR	STATE MO	ZIP CODE 63533

2.2 UTM Coordinates Easting (X):4008188 Northing (Y): -9223007
 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)
 2.3 Name of receiving stream: UNNAMED TRIBUTARY TO HOG BRANCH

3. **OWNER**

NAME CITY OF BRASHEAR		E-MAIL ADDRESS CITYBRSH@MARKTWIN.NE	TELEPHONE WITH AREA CODE 660-323-5575	
ADDRESS P.O. BOX 221	CITY BRASHEAR	STATE MO	ZIP CODE 63533	

3.1 Request review of draft permit prior to Public Notice? YES NO

4. **CONTINUING AUTHORITY: Permanent organization which will serve as the continuing authority for the operation, maintenance and modernization of the facility.**

NAME CITY OF BRASHEAR		TELEPHONE WITH AREA CODE		
ADDRESS P.O. BOX 221	CITY BRASHEAR	STATE MO	ZIP CODE 63533	

5. **OPERATOR**

NAME BILLIE HETTINGER	CERTIFICATE NUMBER 1591	TELEPHONE WITH AREA CODE 660-323-5575
--------------------------	----------------------------	--

6. **FACILITY CONTACT**

NAME BILLIE HEDDINGER	TITLE CITY SUPERINTENDANT	TELEPHONE WITH AREA CODE 660-323-5575
--------------------------	------------------------------	--

7.0 **ADDITIONAL FACILITY INFORMATION**

7.1 Description of facilities (Attach additional sheet if required). Attach a 1" = 2,000' scale U.S. Geological Survey topographic map showing location of all outfalls and downstream landowners. (See Item 9.)
 7.2 Facility SIC code: 4952; Discharge SIC code: 4952; Facility NAICS code: 221320; Discharge NAICS code: 221320.
 7.3 Number of people presently connected or population equivalent (P.E.) 273 Design P.E. 530
 Number of units presently connected: Homes 139 Trailers 37 Apartments 7 Other 0
 Design flow for this outfall: 53000GPD Total design flow for the facility: 53000GPD Actual flow for this outfall: 44000GPD
 Commercial Establishment: Daily number of employees working _____ Daily number of customers/guests _____
 7.4 Length of pipe in the sewer collection system? 3.5feet/miles (Please denote which unit is appropriate.)
 7.5 Does any bypassing occur in the collection system or at the treatment facility? Yes No (If yes, attach explanation.)
 7.6 Does significant infiltration occur in the collection system? Yes No (If yes, attach explanation and proposed repair.)
 7.7 Is industrial waste discharged to the facility identified in Item 2? Yes No (If yes, see instructions.)
 7.8 Will the discharge be continuous through the year? Yes No
 a. Discharge will occur during the following months: _____
 b. How many days of the week will the discharge occur? _____
 7.9 Is wastewater land applied? Yes No (If yes, attach Form I.)
 7.10 Will chlorine be added to the effluent? Yes No
 a. If chlorine is added, what is the resulting residual? _____ µg/l (micrograms per liter)
 7.11 Does this facility discharge to a losing stream or sinkhole? Yes No
 7.12 Attach a flow chart showing all influents, treatment facilities and outfalls.
 7.13 Has a waste load allocation study been completed for this facility? Yes No
 7.14 List all permit violations, including effluent limit exceedances in the last five years. Attach a separate sheet if necessary.
 If none, write none. NONE

8. SLUDGE HANDLING, USE AND DISPOSAL			
8.1 Is the sludge a hazardous waste as defined by 10 CSR 25? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No			
8.2 Sludge Production, including sludge received from others: 7.95 Design Dry Tons/Year _____ Actual Dry Tons/Year			
8.3 Capacity of sludge holding structures: Sludge storage provided: _____ cubic feet; _____ days of storage; _____ average percent solids of sludge; <input type="checkbox"/> No sludge storage is provided.			
8.4 Type of Storage: <input type="checkbox"/> Holding tank <input type="checkbox"/> Building <input type="checkbox"/> Basin <input type="checkbox"/> Other (Please describe) _____ <input type="checkbox"/> Concrete Pad			
8.5 Sludge Treatment: <input type="checkbox"/> Anaerobic Digester <input checked="" type="checkbox"/> Lagoon <input type="checkbox"/> Composting <input type="checkbox"/> Storage Tank <input type="checkbox"/> Aerobic Digester <input type="checkbox"/> Other (Attach description) <input type="checkbox"/> Lime Stabilization <input type="checkbox"/> Air or Heat Drying			
8.6 Sludge Use or Disposal: <input type="checkbox"/> Land Application <input type="checkbox"/> Surface Disposal (Sludge Disposal Lagoon, Sludge held for more than two years) <input type="checkbox"/> Contract Hauler <input type="checkbox"/> Incineration <input type="checkbox"/> Hauled to Another Treatment Facility <input type="checkbox"/> Sludge Retained in Wastewater treatment lagoon <input type="checkbox"/> Solid Waste Landfill <input checked="" type="checkbox"/> Other SLUDGE IS RETAINED IN LAGOON_ Attach explanation sheet.			
8.7 PERSON RESPONSIBLE FOR HAULING SLUDGE TO DISPOSAL FACILITY <input checked="" type="checkbox"/> By Applicant <input type="checkbox"/> By Others (complete below)			
NAME			
ADDRESS		CITY	STATE ZIP CODE
CONTACT PERSON		TELEPHONE WITH AREA CODE	PERMIT NO. MO-
8.8 SLUDGE USE OR DISPOSAL FACILITY <input type="checkbox"/> By Applicant <input type="checkbox"/> By Others (Please complete below.)			
NAME			
ADDRESS		CITY	STATE ZIP CODE
CONTACT PERSON		TELEPHONE WITH AREA CODE	PERMIT NO. MO-
8.9 Does the sludge or biosolids disposal comply with federal sludge regulations under 40 CFR 503? <input type="checkbox"/> Yes <input type="checkbox"/> No (Please attach explanation)			
9. DOWNSTREAM LANDOWNER (S). ATTACH ADDITIONAL SHEETS AS NECESSARY. SEE INSTRUCTIONS.			
NAME			
ADDRESS		CITY	STATE ZIP CODE
10. DRINKING WATER SUPPLY INFORMATION			
10.1 WHAT IS THE SOURCE OF YOUR DRINKING WATER SUPPLY: A. Public supply (municipal or water district water) <u>ADAIR COUNTY PWSD #1</u> If public, please give name of the public supply _____ B. Private well _____ C. Surface water (lake, pond or stream) _____			
10.2 Does your drinking water source serve at least 25 people at least 60 days per year (not necessarily consecutive days)? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
10.3 Does your supply serve housing which is occupied year round by the same people? This does not include housing which is occupied seasonally? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
11. I certify that I am familiar with the information contained in the application, that 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 the Missouri Clean Water Law.			
NAME AND OFFICIAL TITLE (TYPE OR PRINT) RHONDA BRANSON/MAYOR			TELEPHONE WITH AREA CODE 660-323-5575
SIGNATURE 			DATE SIGNED 1/30/13