STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

CONSTRUCTION PERMIT

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

David Fishbeck
D and S Resources WWTF
3229 Highway 221
Doe Run, MO 63637

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 (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.

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.

March 4, 2022
Effective Date

March 3, 2024
Expiration Date

Chris Wieberg, Director, Water Protection Program
CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

This project is for the installation of chlorination and dechlorination tablet feeders along with facilities for detention.

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 complete a cost analysis for compliance because the facility is not a combined or separate sanitary sewer system for a publically-owned treatment works.

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 consistent with plans and specifications signed and sealed by Timothy D. Robbs, P.E. with Taylor Engineering and as described in this permit.

3. The Department must be contacted in writing prior to making any changes to the 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).

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)(G).

5. The wastewater treatment facility shall be located at least fifty feet (50’) from any dwelling or establishment.

6. The wastewater treatment facility shall be located above the twenty-five (25)-year flood level.

7. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage by not less than the one hundred- (100-) year flood elevation per 10 CSR 20-8.140(2)(B). The minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300’) per 10 CSR 20-8.140(2)(C)1.

8. 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.

9. A United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Department of the Army permit and a Section 401 Water Quality Certification issued by the Department may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied or notification is provided that no Section 404 permit is required by the USACE. You must contact your local USACE district since they determine what waters are jurisdictional and which permitting requirements may apply. You may call the Department’s Water Protection Program, 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. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.

- Emergency Power. Disinfection and dechlorination processes, when used, shall be provided during all power outages. 10 CSR 20-8.190 (2) (A)

- The materials utilized for storage, piping, valves, pumping, metering, and splash guards, etc., for chemical handling, shall be specially selected considering the physical and chemical characteristics of each hazardous or corrosive chemical. 10 CSR 20-8.140 (9) (A) 1.

- Secondary containment storage areas contain the stored volume of chemical until it can be safely transferred to alternate storage or released to the wastewater treatment plant at
controlled rates that will not damage the facilities, inhibit the treatment processes, or contribute to stream pollution. Secondary containment shall be designed as follows:

- A minimum volume of one hundred twenty-five percent (125%) of the volume of the largest storage container located within the containment area plus the space occupied by any other tanks located within the containment area when not protected from precipitation; 10 CSR 20-8.140 (9) (A) 2. A.

- A minimum volume of one hundred ten percent (110%) of the volume of the largest storage container located within the containment area plus the space occupied by any other tanks located within the containment area when protected from precipitation; 10 CSR 20-8.140 (9) (A) 2. B.

- Walls and floors of the secondary containment structure constructed of suitable material that is compatible with the specifications of the product being stored. 10 CSR 20-8.140 (9) (A) 2. C.

- Contact period for Chlorine Disinfection. A minimum contact period of fifteen (15) minutes at design peak hourly flow or maximum rate of pumpage shall be provided after thorough mixing. 10 CSR 20-8.190 (3) (A)

- Alarm System for chlorination and dechlorination systems. The applicant shall conform to 10 CSR 20-8.140(7)(C) and be responsible for specifying what the alarm requirements are necessary to assure consistent disinfection in compliance with the applicable bacteria limits and the disinfection residual limit in the effluent. 10 CSR 20-8.190 (3) (C)

- Effluent twenty-four (24) hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.190 (3) (D)

- Dilution tanks and mixing tanks are required when using dry compounds and may be necessary when using liquid compounds to deliver the proper dosage. 10 CSR 20-8.190 (4) (A)

- Solid dechlorination systems shall not be located in the chlorine contact tank. 10 CSR 20-8.190 (4) (B) 1.

- Contact time. A minimum of thirty (30) seconds for mixing and contact time of dechlorination systems shall be provided at the design peak hourly flow or maximum rate of pumpage. 10 CSR 20-8.190 (4) (B) 2.

11. Upon completion of construction:

A. D & S Resources 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).
IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The addition of disinfection will help the facility meet permit limits.

2. FACILITY DESCRIPTION

D&S Resources is a small sand filter facility. It is located behind Sherry's Convenience Store on Highway 221 in Doe Run, in St. Francois County, Missouri. The facility has a design average flow of 1500 gpd.

3. COMPLIANCE PARAMETERS

The proposed project is required to meet the E. coli requirements of MOGD00596. The facility recently failed to meet the daily maximum of 1030 CFU/100 mL.

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Disinfection – Disinfection is the process of removal, deactivation, or killing of pathogenic microorganisms.

   o Tablet Chlorinator – Installation of a tablet [Norweco Bio-Dynamic®] chlorination chamber receiving clarified effluent and prior to the chlorine contact tank. The tablet chlorinator shall have a design flow of 1,500 gpd. The system will dispense hypochlorite as the wastewater comes into contact with the tablets.

   o Chlorine Contact will take place in 24 linear feet of 12" PVC pipe. This will allow for a minimum 15-minute contact time during a peak flow of 1,500 gpd.

   o Tablet Dechlorinator – Installation of a tablet [Norweco Bio-Dynamic®] dechlorination chamber receiving the chlorinated effluent and prior to Outfall No. 001. The tablet dechlorinator shall have a design flow of 1,500 gpd. The system will dispense sodium sulfite as the wastewater comes into contact with the tablets.

5. OPERATING PERMIT

These construction activities do not require a modification to the operating permit. It is expected that the facility owner will include a new facility description and process flow diagram in their next operating permit renewal application to reflect the installation of a dechlorination system.
V. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC 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 AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: https://ahc.mo.gov

Bern Johnson
Engineering Section
bern.johnson@dnr.mo.gov

Cailie Carlile, P.E.
Engineering Section
cailie.carlile@dnr.mo.gov
**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.)*

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is this a Federal/State funded project?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Has the Missouri Department of Natural Resources approved the proposed project’s antidegradation review?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Has the department approved the proposed project’s facility plan*?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Is a copy of the facility plan* for wastewater treatment facilities included with this application?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Is a copy of the appropriate plans* and specifications* included with this application?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Has the appropriate operating permit application (A, B, or B2) been submitted to the department?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Is the facility currently under enforcement with the department or the Environmental Protection Agency?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Is the appropriate fee or JetPay confirmation included with this application?</td>
<td>☑ YES</td>
</tr>
</tbody>
</table>

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

2.0 **PROJECT INFORMATION**

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name of Project</td>
<td>D &amp; S Resources - Disinfection Improvements</td>
</tr>
<tr>
<td>Estimated Project Construction Cost</td>
<td>$10,000.00</td>
</tr>
</tbody>
</table>

2.3 **PROJECT DESCRIPTION**

Installation of chlorination and dechlorination tablet feeders along with facilities for detention.

2.4 **SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION**

Stored in septic tanks

<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>Current population</td>
<td>8</td>
</tr>
<tr>
<td>Design population</td>
<td>15</td>
</tr>
<tr>
<td>Actual Flow (gpd)</td>
<td>800</td>
</tr>
<tr>
<td>Design Average Flow (gpd)</td>
<td>1500</td>
</tr>
<tr>
<td>Actual Peak Daily Flow (gpd)</td>
<td>1500</td>
</tr>
<tr>
<td>Design Maximum Daily Flow (gpd)</td>
<td>1500</td>
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2.6 **ADDITIONAL INFORMATION**

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<th>Question</th>
<th>Answer</th>
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<tbody>
<tr>
<td>Is a topographic map attached?</td>
<td>☑ YES</td>
</tr>
<tr>
<td>Is a process flow diagram attached?</td>
<td>☑ YES</td>
</tr>
</tbody>
</table>
### 3.0 WASTEWATER TREATMENT FACILITY

<table>
<thead>
<tr>
<th>NAME</th>
<th>TELEPHONE NUMBER WITH AREA CODE</th>
<th>E-MAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>D and S Resources, LLC DBA Sherry's</td>
<td>573.756.3539</td>
<td><a href="mailto:dfischbeck@sherryquickmart.com">dfischbeck@sherryquickmart.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ADDRESS (PHYSICAL)</th>
<th>CITY</th>
<th>STATE</th>
<th>ZIP CODE</th>
<th>COUNTY</th>
</tr>
</thead>
<tbody>
<tr>
<td>3229 Highway 221</td>
<td>Doe Run</td>
<td>MO</td>
<td>63637</td>
<td>St. Francois</td>
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</tbody>
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Wastewater Treatment Facility: Mo- 0132195 (Outfall 001 Of 1)

3.1 Legal Description: ¼ SW, ¼ SW, ¼ Sec. 9, T 35N, R 5E
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates: Easting (X): 720962, Northing (Y): 4180919
For Universal Transverse Mercator (UTM), Zone 16 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: Tributary to Doe Run Creek

### 4.0 PROJECT OWNER

<table>
<thead>
<tr>
<th>NAME</th>
<th>TELEPHONE NUMBER WITH AREA CODE</th>
<th>E-MAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>David Fischbeck</td>
<td>573.756.3539</td>
<td><a href="mailto:dfischbeck@sherryquickmart.com">dfischbeck@sherryquickmart.com</a></td>
</tr>
</tbody>
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<th>ADDRESS</th>
<th>CITY</th>
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<th>ZIP CODE</th>
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<tbody>
<tr>
<td>1054 St. Francois Hills</td>
<td>Doe Run</td>
<td>MO</td>
<td>63637</td>
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### 5.0 CONTINUING AUTHORITY

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.

<table>
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<tr>
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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

<table>
<thead>
<tr>
<th>ENGINEER NAME / COMPANY NAME</th>
<th>TELEPHONE NUMBER WITH AREA CODE</th>
<th>E-MAIL ADDRESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timothy D. Robbs, PE, Taylor Engineering, LLC</td>
<td>573.756.9226</td>
<td><a href="mailto:trobbs@taylorengineeringllc.com">trobbs@taylorengineeringllc.com</a></td>
</tr>
</tbody>
</table>

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<th>CITY</th>
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</thead>
<tbody>
<tr>
<td>PO Box 674</td>
<td>Farmington</td>
<td>MO</td>
<td>63640</td>
</tr>
</tbody>
</table>

### 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.

PRINTED NAME

David Fischbeck

TITLE OR CORPORATE POSITION

Owner

TELEPHONE NUMBER WITH AREA CODE

573.756.3539

E-MAIL ADDRESS

dfischbeck@sherryquickmart.com

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.