Work-in-Projects
Privately Funded Developer – Homeowner Builds Projects
Pierpont Store

Missouri Department of NATURAL RESOURCES
dnr.mo.gov
Michael L. Parson, Governor
Dru Buntin, Director

January 11, 2022

CERTIFIED MAIL #7016 0600 0000 2590 7708

Daniel Beckett
JSRW Enterprises LLC
801 E. Happy Hollow Rd
Columbia, MO 65203

RE: Subsurface Dispersal System – Pierpont Store, ACT1087, Boone County, Facility Plan Comments

Dear Daniel Beckett:

The Missouri Department of Natural Resources, Water Protection Program has reviewed the Pierpont Store Subsurface Drip Dispersal Facility Plan submitted by Crockett Engineering on behalf of JSRW Enterprises LLC with a received date of November 30, 2021. Please respond to the following questions and comments below by January 31, 2022:

1. The flows for the site are recommended to be 750 gallons per day. When using the Department of Health and Senior Services numbers from 19 CSR 20-6.030 Table 2A, the number comes out to almost 5,000 gallons per day with no expansion. On page 2 of the facility plan, it states there are 74 seats of exterior seating and then on page 3, it mentions the facility would like to add 60 additional patrons, which would be seating for 134. When using the Department of Natural Resources recommendation from Table 1-1 in the Wastewater Standards and Guidelines Document, the expected daily flow is 1,029 gallons per day,
    - Exterior seating: 134 seats*3 gallons per day per person*2 turnovers per day on peak days=804 gallons per day
    - Interior Store space: (747 sq ft/1,000 sq ft)* 200 gallons = 150 gallons
    - Employees: Assuming 5 employees, 5*15= 75 gallons.

    While water use records are provided in accordance with 10 CSR 20-8.110(3)(C), they encompass a time of change at the Pierpont Store where flows were changing due to the pandemic, changing operations, and the irrigation flows could not be separated from the wastewater flows. It has been reported that the existing system is surfacing. Provide justification on why 750 gallons per day is appropriate for the new system and that the 5,000 gallon flow equalization tank is sufficient per 10 CSR 20-8.110(3)(B) and 10 CSR 20-6.010(5)(K).

2. The soils report provided in the report only included the description of Pit #5; however 10 CSR 20-8.110(7)(B) requires the soils report include a copy of all the descriptions of the pits dug. Submit the soil descriptions for the other 6 pits.

3. The recommendation in the report is to replace the current Department of Health regulated onsite system with a new drip dispersal system, however from the map provided there were no soil pits dug near the existing system. If possible, provide the original soils report for the existing treatment system on the loading rate and the location of the original soil pits.
    a. How was the loading rate of 0.075 gpd/sq ft for the replacement system determined if there was no soil pit dug?
    b. Is there an existing curtain drain around the original system, if so, provide details on its location and depth per 10 CSR 20-8.110(5)(E)6.K.
    c. Will soils need to be imported for the replacement system?

4. The recommendation from the soil scientist was to install a water diversion system around the drip fields to prevent additional water from flowing into the system. What considerations for the water diversion system are being considered to minimize impacts to the system and to groundwater, per 10 CSR 20-8.110(5)(E)6, 10 CSR 20-8.140(2)(C)3 and 10 CSR 20-8.200(7)(A)1.C?

5. The drip fields and the treatment units are located immediately adjacent to existing parking lots and structures, how will access be restricted to prevent the system from being driven or parked on per 10 CSR 20-8.200(7)(A)1.A?

6. From the preliminary map in the facility plan, space is limited for future growth. If the dispersal fields need expanded for future growth or replacement of the proposed system, where would the additional fields be located, per 10 CSR 20-8.110(5)(E)6.D?

7. From the menu provided for the store, brats and pizza are being served regularly onsite. What considerations for a grease interceptor were considered to help prevent fats, oils, and greases from entering the treatment system and clogging components per 10 CSR 20-8.110(5)(E)6.A and 10 CSR 20-8.150(3)?

8. The treatment system and drip dispersal fields need to be located 300 feet from sinkholes. How far are the treatment system and drip dispersal fields from the known sinkholes in and around the facility per 10 CSR 20-8.110(7)(D)?

9. How will the store operate while construction is ongoing, especially since the existing onsite system is being removed, per 10 CSR 20-8.110(5)(E)15?

10. While the facility plan notes that it is 2 miles to the existing Boone County Regional Sewer District or City of Columbia collection lines, has the facility obtained a waiver from the higher continuing authority or been in contact with the sewer district as Boone County is the level 2 continuing authority per 10 CSR 20-6.010(2). Has the facility approached Boone County requesting a waiver or is the facility wishing to utilize one of the other options for a lower continuing authority per 10 CSR 20-6.010(2)(C)?

The Department recommends that all permittees consider any foreseeable water quality criteria when evaluating treatment design options for which future requirements could be addressed in the design phase without incurring significant cost.

Construction, installation, expansion or modification of any collection system or wastewater treatment facility is prohibited until a construction permit is issued by the Department, per 10 CSR 20-6.010(4)(A). The Department highly recommends that you wait to initiate the bidding process until the construction permit is issued.

If you have any questions or if you would like to schedule a meeting to discuss the project, please contact Leasue Meyers by phone at 573-751-7906, by email at leasue.meyers@dnr.mo.gov, or by mail at Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102. Thank you.

Thank you.

Sincerely,

WATER PROTECTION PROGRAM

Cailie Carlile

Cailie Carlile, P.E., Construction Permits Unit Supervisor
Engineering Section

CC:lmt

c: Jesse Stephens, P.E., Crockett Engineering
Tom Ratermann, P.E., Boone County Regional Sewer District