

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Zach Renkoski
Renkoski Land and Cattle, LLC
P.O. Box 178
Pierce City, MO 65723

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.

May 24, 2022
Effective Date

May 23, 2024
Expiration Date


Chris Wieberg, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Construction of no-discharge wastewater treatment facility; a septic tank with a nominal volume of 1,000 gallons, approximately 265 lineal feet of 4 inch SDR-35 pvc pipe with cleanouts; earthen storage basin with an approximate working volume of 1,761,600 gallons between the 2 foot depth and the 11 foot depth - maximum normal storage level. Storage for approximately 284 days at wet weather design flow. Land application of wastewater to take place on adjacent land with the use of a travelling gun system. Together with all the necessary appurtenances to make a complete and usable wastewater system to serve a meat processor and effectively treat, hold and land apply a process wastewater flow of 4,031 gallons per day with no-discharge to waters of the state. The site is located in the SE 1/4, of Section 16, T25N, R28W; Pettis County.

Approximate locations:

Storage basin emergency discharge point UTM: X=411396, Y=4081887; zone 15

Application field UTM: X=411,300, Y=4081740; zone 15

Vegetation: grass

Dry weather average annual process flow: 4,031 gpd.

Wettest 1 in 10 year effluent flow from precipitation: 2,174 gpd.

Total design flow 6,205 gpd.

Maximum spray irrigation permitted: up to 1.0 inch/day, up to 3.0 inch/week, up to 24 inches/year.

Application area available: approximately 31.5 acres.

Design irrigation rates: 0.5 inch/day, 1.0 inch/week, 3.0 inch/year. Rates needed at design flow are approx. 2.1 inch/year with average rainfall, and 2.7 inch/year with wettest 1 in 10 year rainfall.

Sludge will be stored in the treatment lagoon and removed when necessary.

Storage basin and application site will be fenced and fitted with warning signs.

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.

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 Jeff Browning, P.E., Allied Engineering Services 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 Northeast Regional Office per 10 CSR 20-7.015(9)(G).
5. The wastewater treatment facility shall be located at least 200 ft. to residence and 50 ft. to property line, per 10 CSR 20-8.140(C)(2)
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.
 - Flood protection shall apply to new construction and to existing facilities undergoing major modification. 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. 10 CSR 20-8.140 (2) (B)
 - Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least three hundred feet (300'). 10 CSR 20-8.140 (2) (C) 1.
 - No treatment unit with a capacity of twenty-two thousand five hundred gallons per day (22,500 gpd) or less shall be located closer than the minimum distance of 200' to a neighboring residence and 50' to property line for lagoons. See 10 CSR 20-2.010(68) for the definition of a residence. 10 CSR 20-8.140 (2) (C) 2
 - Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D).
 - No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140 (7) (D) 1.
 - Where a potable water supply is to be used for any purpose in a wastewater treatment facility other than direct connections, a break tank, pressure pump, and pressure tank or a reduced pressure backflow preventer consistent with the

department's Public Drinking Water Branch shall be provided. 10 CSR 20-8.140 (7) (D) 3. A.

- For indirect connections, a sign shall be permanently posted at every hose bib, faucet, hydrant, or sill cock located on the water system beyond the break tank or backflow preventer to indicate that the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 3. B.
- Where a separate non-potable water supply is to be provided, a break tank will not be necessary, but all system outlets shall be posted with a permanent sign indicating the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 4.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)
- Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility:
 - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140 (8) (A).
 - Gratings over appropriate areas of treatment units where access for maintenance is necessary; 10 CSR 20-8.140 (8) (B)
 - First aid equipment; 10 CSR 20-8.140 (8) (C)
 - Posted "No Smoking" signs in hazardous areas; 10 CSR 20-8.140 (8) (D)
 - Appropriate personal protective equipment (PPE); 10 CSR 20-8.140 (8) (E)
 - Portable blower and hose sufficient to ventilate accessed confined spaces; 10 CSR 20-8.140 (8) (F)
 - 10 CSR 20-8.140 (8) (G) Portable lighting equipment complying with NEC requirements. See subsection (7)(B) of this rule;
 - 10 CSR 20-8.140 (8) (H) Gas detectors listed and labeled for use in NEC Class I, Division 1, Group D locations. See subsection (7)(B) of this rule;
 - Appropriately-placed warning signs for slippery areas, non-potable water fixtures (see subparagraph (7)(D)3.B. of this rule), low head clearance areas, open service manholes, hazardous chemical storage areas, flammable fuel storage areas, high noise areas, etc.; 10 CSR 20-8.140 (8) (I)
 - Explosion-proof electrical equipment, non-sparking tools, gas detectors, and similar devices, in work areas where hazardous conditions may exist, such as digester vaults and other locations where potentially explosive atmospheres of flammable gas or vapor with air may accumulate. 10 CSR 20-8.140 (8) (K)
 - Provisions for local lockout/tagout on stop motor controls and other devices; 10 CSR 20-8.140 (8) (L)
- A septic tank must have a minimum capacity of at least one thousand (1,000) gallons. 10 CSR 20-8.180 (2) (A)
- The minimum berm width shall be eight feet (8') to permit access of maintenance vehicles. 10 CSR 20-8.200 (4) (A) 2.
- Minimum freeboard shall be two feet (2'). 10 CSR 20-8.200 (4) (A) 3.
- An emergency spillway shall be provided. 10 CSR 20-8.200 (4) (A) 4.

- An emergency spillway must have the ability for a representative sample to be collected if a discharge occurs. 10 CSR 20-8.200 (4) (A) 4. C.
- Soil shall be compacted with the moisture content between two percent (2%) below and four percent (4%) above the optimum water content and compacted to at least ninety-five percent (95%) maximum dry density test method. 10 CSR 20-8.200 (4) (B).
- Unlined corrugated metal pipe shall not be used for influent lines due to corrosion problems. 10 CSR 20-8.200 (4) (D) 1.
- The influent line(s) shall be located along the bottom of the lagoon so that the top of the pipe is just below the average elevation of the lagoon seal; however, there shall be an adequate seal below the pipe. 10 CSR 20-8.200 (4) (D) 3.
- The wetted application area of a surface irrigation system must be located:
 - Outside of flood-prone areas having a flood frequency greater than once every ten (10) years; 10 CSR 20-8.200 (6) (B) 1.
 - At least one hundred fifty feet (150') from existing dwellings or public use areas, excluding roads or highways; 10 CSR 20-8.200 (6) (B) 2. A.
 - At least fifty feet (50') inside the property line; 10 CSR 20-8.200 (6) (B) 2. B.
 - At least three hundred feet (300') from any sinkhole, losing stream, or other structure or physiographic feature that may provide direct connection between the ground water table and the surface; 10 CSR 20-8.200 (6) (B) 2. C.
 - At least three hundred feet (300') from any existing potable water supply well not located on the property. Adequate protection shall be provided for wells located on the application site; 10 CSR 20-8.200 (6) (B) 2. D.
 - One hundred feet (100') to wetlands, ponds, gaining streams (classified or unclassified; perennial or intermittent); 10 CSR 20-8.200 (6) (B) 2. E. and
 - If an established vegetated buffer or the wastewater is disinfected, the setbacks established in subsections (A)–(E) above may be decreased if the applicant demonstrates the risk is mitigated. 10 CSR 20-8.200 (6) (B) 2. F.
- The wetted application area of a surface irrigation system must be fenced, or if not fenced, provide in the construction permit application or the facility plan, the:
 - Method of disinfection being utilized; 10 CSR 20-8.200 (6) (B) 3. A.
 - Suitable barriers in place, 10 CSR 20-8.200 (6) (B) 3. B. or
 - Details on how public access is limited and not expected to be present. 10 CSR 20-8.200 (6) (B) 3. C.
- At a minimum, treatment prior to irrigation shall provide performance equivalent to that obtained from a primary wastewater lagoon cell and include 105 days wastewater storage in addition to the primary volume. 10 CSR 20-8.200 (6) (C).
- The public shall not be allowed into an area when irrigation is being conducted; 10 CSR 20-8.200 (6) (F) 2.

11. Upon completion of construction:

- A. Submit an electronic copy of the as built if the project was not constructed in accordance with previously submitted plans and specifications; and
- B. Submit the enclosed form Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N). And request that the Operating Permit be issued. An application for a General Permit, Form E, has been submitted along with the application fee of \$200.00.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

The owner is installing a meat processing facility. The wastewater treatment plant will serve the processing facility.

2. FACILITY DESCRIPTION

The proposed facility and wastewater treatment facility is located at 3525 FR 1040, Monett, Barry County, Missouri. The new treatment facility will have a 1000 gallon septic tank and a single lagoon cell with a top surface area of approximately 42,436 sq. ft. and an effective storage volume of approximately 1,761,600 gallons. Land application to occur over approximately 31.5 acres using a traveling gun system at an approximate rate of 2.1 inches per year.

The treatment facility will serve a meat processor with the ability to process 20 beef cows and 20 hogs per day, five days per week. The maximum daily wastewater flow is 5,650 gallons. The average daily wastewater flow is 4,031 gallons. Design flow including the wettest 1 in 10 year precipitation minus evaporation is considered to be 6205 gpd.

3. COMPLIANCE PARAMETERS

The proposed project is required to meet the requirements of MO-G822 General Permit for the Land Application of Food Processing Wastewater with an expiration date of May 22, 2022. MOG822 is proposed to be replaced by General Permit MO-G22xxxx, currently under development. It is expected MO-G22xxxx, will be assigned to this facility.

The limits following the completion of construction will be applicable to the facility:

Process Wastewater for SIC Code 2015		
<i>Parameter</i>	<i>Units</i>	<i>Limit</i>
Total Kjeldahl Nitrogen (TKN)	mg/L	Monitoring
Total Phosphorus as P	mg/L	Monitoring
Total Sodium	mg/L	Monitoring

Total Suspended Solids	mg/L	Monitoring
Total Chlorine as Cl	mg/L	Monitoring
pH	Standard Units	6.0 – 9.0
Oil and Grease	mg/L	Monitoring
Land Application (Surface) Rate Limits		
Total Kjeldahl Nitrogen	lbs./acre/year	150
Oil and Grease	lbs./acre/year	1,000
pH	Standard Units	6.0 - 9.0 in applied wastes
Earthen Storage Basin Operational Monitoring		
Storage Basin Freeboard	Feet	Monitoring
Precipitation	Inches	Monitoring
Land Application Area Operational Monitoring (Daily)		
Irrigation Period	Hours	Monitoring
Volume Irrigated	Gallons	Monitoring
Application Area	Acres	Monitoring
Application Rate	Inches	1.0

Land application rates shall not exceed any of the following limitations

- a) Sludge shall not exceed 10 dry tons per acre per year.
- b) Wastewater shall not exceed 0.2 inch/hour; 0.5 inch/day; 1.0 inches/week; 24 inches/year.

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Construction will cover the following items:

- **Septic Tank** – A septic tank provides passive primary treatment as the settleable solids in raw wastewater settle onto the bottom of the tank. Raw wastewater will flow by gravity to the 1,000 gallon septic tank. All flow from the septic tank will discharge by gravity through 4-inch schedule 40 PVC piping with necessary cleanouts into the storage lagoon.
- **Storage Lagoon** – Lagoon will be constructed and sealed with a 30 inch clay liner. Based on the Geohydrologic Evaluation completed October 7, 2021, the site received a moderate overall geologic limitations rating and a moderate collapse potential rating. The basin will have 3:1 side slopes, depth from the top of the berm to the lagoon floor of 14 ft., with 2 ft. for sludge depth, and 2 ft. between the spillway elevation and the top of the berm. The normal maximum storage level will be at 11 feet above the floor; two feet of safety volume will be between the maximum storage depth and the spillway elevation. The normal storage volume will be approximately 1,761,600 gallons. The total storage volume including the emergency volume is approximately 2,324,800 gallons. The area of the basin at the top is 42,436 sq. ft. The 1 in 10 year precipitation minus evaporation is considered to be 30 inches. Average design flow from the processing facility is 4,031 gpd; additional accumulation from 1 in 10 year precipitation is 2,174 gpd. Total design flow is 6,205 gpd. The normal storage volume has capacity for

approximately 284 days of storage during the wettest 1 in 10 year. The minimum required storage capacity is 120 days.

- Land Application Site –The land application site is adjacent to the storage lagoon. The amount of land available for land application is approximately 31.5 acres.
- Wastewater Irrigation – Wastewater irrigation to be done with a traveling gun system with an irrigation pump that has the capacity to irrigate from 50 gpm to 175 gpm. Land application will be performed by a contractor as needed but typically on an annual basis. Proposed application rates are 0.2 inch/hour, 0.5 inch/day, up to 1.0 inch/week, 2.1 inches/year.

5. OPERATING PERMIT

After completion of construction project submit: statement of work completed, and as-builts if the project was not constructed in accordance with previously submitted plans and specifications. An application for a General Permit, Form E, has been submitted along with the application fee of \$200.00. It is anticipated that Missouri State Operating Permit, General Permit MO-G22xxxx (under development), will be issued after receipt of the above documents.

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>

Andrew Appelbaum, P.E.
Engineering Section
andy.appelbaum@dnr.mo.gov



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

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

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: _____ Project #: _____
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
☐ YES Date of Approval: _____ ☒ N/A
- 1.3 Has the department approved the proposed project's facility plan*?
☐ YES Date of Approval: _____ ☒ NO (If No, complete No. 1.4.)
- 1.4 [Complete only if answered No on No. 1.3.] Is a copy of the facility plan* for wastewater treatment facilities included with this application?
☐ YES ☐ NO ☒ Exempt because Private no-discharge facility
- 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 and fee submittal. Denote which form: ☒ A ☐ B ☐ B2
☐ N/A: However, In the event the department believes that my operating permit requires revision to permit limitation such as changing equivalent to secondary limits to secondary limits or adding total residual chlorine limits, please share a draft copy prior to public notice? ☐ YES ☐ NO
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? ☐ YES ☒ NO
- 1.9 Is the appropriate fee or JetPay confirmation included with this application? ☒ YES ☐ NO
See Section 7.0

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

2.0 PROJECT INFORMATION

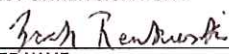
2.1 NAME OF PROJECT Zach Renkoski	2.2 ESTIMATED PROJECT CONSTRUCTION COST \$
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2.3 PROJECT DESCRIPTION
Small meat processing plant with earthen storage lagoon and land application.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
Land application.

2.5 DESIGN INFORMATION
A. Current population: n/a; Design population: n/a
B. Actual Flow: 4820 gpd; Design Average Flow: 6971 gpd;
Actual Peak Daily Flow: 6439 gpd; Design Maximum Daily Flow: 8590 gpd; Design Wet Weather Event: _____

2.6 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 Zach Renkoski		TELEPHONE NUMBER WITH AREA CODE (417)236-5099		E-MAIL ADDRESS
ADDRESS (PHYSICAL) 3525 FR 1040	CITY Monett	STATE MO	ZIP CODE 65708	COUNTY Barry
Wastewater Treatment Facility: Mo- (Outfall 1 Of 1)				
3.1 Legal Description: NE ¼, NE ¼, SE ¼, Sec. 16, T 25N, R 28W (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): 411522 Northing (Y): 4081832 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: Hudson Creek				
4.0 PROJECT OWNER				
NAME Zach Renkoski		TELEPHONE NUMBER WITH AREA CODE (417)236-5099		E-MAIL ADDRESS
ADDRESS P.O. Box 178	CITY Pierce City	STATE MO	ZIP CODE 65723	
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.				
NAME Renkoski Land and Cattle, LLC		TELEPHONE NUMBER WITH AREA CODE (417)236-5099		E-MAIL ADDRESS
ADDRESS P.O. Box 178	CITY Pierce City	STATE MO	ZIP CODE 65723	
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 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 Jeff E. Browning, PE		TELEPHONE NUMBER WITH AREA CODE (573)470-7447		E-MAIL ADDRESS jeff@alliedengineering.us
ADDRESS P.O. Box 22	CITY Silex	STATE MO	ZIP CODE 63377	
7.0 APPLICATION FEE				
<input checked="" type="checkbox"/> CHECK NUMBER <input type="checkbox"/> 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.				
PROJECT OWNER SIGNATURE 				
PRINTED NAME Zach Renkoski			DATE 1/15/2022	
TITLE OR CORPORATE POSITION Owner		TELEPHONE NUMBER WITH AREA CODE (417)236-5099		E-MAIL ADDRESS
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.				

PART B – LAND APPLICATION ONLY

(Submit only if the proposed construction project includes land application of wastewater.)

8.0 FACILITY INFORMATION

8.1 Type of wastewater to be irrigated: ☐ Domestic ☐ State/National Park ☐ Seasonal business
☐ Municipal ☐ Municipal with a pretreatment program or significant industrial users
☒ Other (explain) Small meat processing

8.2 Months when the business or enterprise will operate or generate wastewater:
☒ 12 months per year ☐ Part of the year (list months): _____

8.3 This system is designed for:
☒ No-discharge.
☐ Partial irrigation when feasible and discharge rest of time.
☐ Irrigation during recreational season, April – October, and discharge during November – March.
☐ Other (explain) _____.

9.0 STORAGE BASINS

9.1 Number of storage basins: 1 (Use additional pages if greater than three basins.)

9.2 Type of basins: ☐ Steel ☐ Concrete ☐ Fiberglass ☒ Earthen ☐ Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.

Basin #1:	Length <u>206</u>	Width <u>206</u>	Depth <u>14</u>	Freeboard <u>2</u>	Depth <u>12</u>	Safety <u>1</u>	% Slope <u>33</u>
Basin #2:	Length _____	Width _____	Depth _____	Freeboard _____	Depth _____	Safety _____	% Slope _____
Basin #3:	Length _____	Width _____	Depth _____	Freeboard _____	Depth _____	Safety _____	% Slope _____

9.4 Storage Basin operating levels (report as feet below emergency overflow level).

Basin #1:	Maximum operating water level <u>1</u> ft	Minimum operating water level <u>10</u> ft
Basin #2:	Maximum operating water level _____ ft	Minimum operating water level _____ ft
Basin #3:	Maximum operating water level _____ ft	Minimum operating water level _____ ft

9.5 Design depth of sludge in storage basins.

Basin #1: n/a ft Basin #2: _____ ft Basin #3: _____ ft

9.6 Existing sludge depth, if the basins are currently in operation.

Basin #1: n/a ft Basin #2: _____ ft Basin #3: _____ ft

9.7 Total design sludge storage: n/a dry tons and _____ cubic feet

10.0 LAND APPLICATION SYSTEM

10.1 Number of irrigation sites 2 Total Acres 31.5 Maximum % field slopes 10
Location: _____ ¼, NE ¼, SE ¼, 16 Sec. 25N T 28W R Barry County 24.3 Acres
Location: NE ¼, SE ¼, NE ¼, 16 Sec. 25N T 28W R Barry County 7.2 Acres
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ Acres
(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation: ☒ Grass hay ☒ Pasture ☐ Timber ☐ Row crops
☐ Other (describe) _____

10.3 Wastewater flow (dry weather) gallons per day: Average annual 4820 Seasonal _____ Off-season _____

10.4 Land application rate (design flow including 1-in-10 year storm water flows):

Design:	<u>2.97</u> inches/year	<u>.2</u> inches/hour	<u>.5</u> inches/day	<u>1.0</u> inches/week	<u>31.5</u> acres
Actual:	<u>2.06</u> inches/year	<u>.2</u> inches/hour	<u>.5</u> inches/day	<u>1.0</u> inches/week	<u>31.5</u> acres

10.5 Total irrigation per year (gallons): Design: 2.5M gal Actual: 1.8M gal

10.6 Actual months used for irrigation (check all that apply):

☐ Jan ☐ Feb ☐ Mar ☒ Apr ☒ May ☐ Jun ☐ Jul ☐ Aug ☐ Sep ☒ Oct ☒ Nov ☒ Dec

10.7 Land application rate is based on:

☒ Hydraulic Loading ☐ Other (describe) _____
☐ Nutrient Management Plan (N&P) If N&P is selected, is the plan included? ☐ YES ☐ NO