Permit No. CP0002439

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

CONSTRUCTION PERMIT

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

Memory Lane Events LLC
Bert Westbrook
78 Walnut Grove Road
Eldon, MO 65026

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.

January 31, 2025
Effective Date

January 30, 2027
Expiration Date

John Hoke, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Installation of a collection system and drip dispersal subsurface wastewater treatment system to treat flows from a new 500 capita event center and new campground area consisting of two RV sites, five one-bedroom cabins, a kitchen, and bathhouse. The collection and treatment systems prior to the drip dispersal dosing tank are split into a northern branch for the event center and a southern branch for the campground. The event center has a design average flow of 3,571 gallons per day (gpd) and the campground has a design average flow of 467 gpd, for a total design average flow of 4,038 gpd at maximum capacity.

The event center portion of the system includes installation of a 1,500-gallon dual compartment septic tank, a 4,500-gallon equalization basin with two STA-RITE Step 10 submersible filtered effluent pumps, and a 1,500-gallon single compartment tank containing a MicroFAST 0.75 treatment system. The campground portion of the system includes installation of approximately 393 lf of 8-inch SDR-35 PVC gravity main connected to four existing 500-gallon single compartment tanks, and a 1,500-gallon single compartment tank containing a MicroFAST 0.75 treatment system. Each 1,500-gallon treatment tank will connect to a newly installed 2,000-gallon dosing tank containing a STA-RITE Step 20 0.5 hp submersible filtered effluent pump, rated for 13 gpm at 86.1 TDH. The dosing tank will pump flows to a six-zone drip dispersal field for final treatment.

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 publicly-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 Ethan K. Shackelford, P.E. with Alpha Engineering & Surveying, LLC 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 Central Field Operations Office per 10 CSR 20-7.015(9)(G).

5. 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 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.

6. 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.

7. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.

    - Rain water from roofs, streets, and other areas and groundwater from foundation drains shall be excluded from all new sewers. 10 CSR 20-8.120 (2)

- Service connections to the gravity sewer main shall be watertight and cannot protrude into the sewer. 10 CSR 20-8.120 (3) (C) 1.

- There shall be no physical connections between a public or private potable water supply system and a sewer or appurtenance that would permit the passage of any wastewater or polluted water into the potable supply. Sewers shall be laid at least 50 feet in a horizontal direction from any existing or proposed public water supply well or other water supply sources or structures. Sewers must also comply with 10 CSR 23-3.010. 10 CSR 20-8.120 (5)

- 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 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 300 feet. 10 CSR 20-8.140 (2) (C) 1.

    - Missouri Geological Survey determined that a distance of 100 feet between the subsurface dispersal fields and the water well is protective.

- 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.

- Subsurface systems shall—
    - Exclude unstabilized fill and soils that have been highly compacted and/or disturbed, such as old road beds, foundations, or similar things; 10 CSR 20-8.200 (7) (A) 1. A.
    - Provide adequate surface drainage where slopes are less than two percent; 10 CSR 20-8.200 (7) (A) 1. B.
    - Provide surface and subsurface water diversion where necessary, such as a curtain or perimeter drain; 10 CSR 20-8.200 (7) (A) 1. C. and
    - Have a ten foot buffer from the property line. 10 CSR 20-8.200 (7) (A) 1. D.

- The vertical separation between the bottom of the drip lines and/or the trench and a limiting layer, including but not limited to, bedrock; restrictive horizon; or seasonal high water table, shall be no less than:
    - Twelve inches for systems dispersing secondary or higher quality effluent; 10 CSR 20-8.200 (7) (A) 2. B.
- Subsurface systems shall be, at a minimum, preceded by preliminary treatment. 10 CSR 20-8.200 (7) (B)

- Loading rates shall not exceed the values assigned by the site and soil evaluation. 10 CSR 20-8.200 (7) (C)

- All network piping and low pressure distribution piping and fittings with polyvinyl chloride (PVC) shall meet ASTM Standard D 1785 *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, or 120* as approved and published August 1, 2015, or equivalent rated to meet or exceed ASTM D2466 *Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings* as approved and published August 1, 2017. These standards shall hereby be incorporated by reference into this rule, as published by ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959. This rule does not incorporate any subsequent amendments or additions. 10 CSR 20-8.200 (8) (A) 2.

- The location and size of the drains and buffers must be factored into the total area required for the drip dispersal system. 10 CSR 20-8.200 (9) (A) 1.

- The drip dispersal lines shall be placed at a minimum depth of six inches below the surface. 10 CSR 20-8.200 (9) (B) 1.

- Emitters and drip dispersal lines shall be placed at a minimum on a two foot spacing to achieve even distribution of the wastewater and maximum utilization of the soil. 10 CSR 20-8.200 (9) (B) 2.

8. Upon completion of construction:

   A. Memory Lane Events LLC 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 MO 780-2155, Wastewater Construction Statement of Work Completed to the Department in accordance with 10 CSR 20-6.010(5)(N) and request the public noticed operating permit be issued. The operating permit was drafted in 2021 with the original construction permit CP0002439, which expired before construction was completed. The operating permit fee has been paid.

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

This Wastewater Irrigation System (WWIS) will be constructed to treat domestic wastewater from a newly developed 500-capacity events center and a campground area consisting of five cabins, two RV lots, a kitchen, and a bathhouse. A drip irrigation system is being proposed as a subsurface, non-discharging alternative.

2. FACILITY DESCRIPTION

The new 500 capita event center and campground area consisting of five one-bedroom cabins, two RV lots, a kitchen, and a bathhouse will have a new collection and wastewater treatment system. The event center is to operate once a week, on Saturdays, and the campground is to operate an average of 2.5 days a week.

Flows from the event center will enter a 1,500-gallon dual compartment septic tank, then flow to a 4,500-gallon equalizations basin with two pumps which will pump flows to a 1,500-gallon single compartment tank containing a MicroFAST 0.75 treatment system. Secondary level effluent will flow by gravity into a 2,000-gallon dosing tank, to be dispersed to the six-zone drip dispersal field. Flows from the event center on Saturdays are to be evenly pumped out of the equalization basin throughout the week.

The campground will have two 8-inch gravity main lines, which will connect to four existing 500-gallon single compartment tanks. Both lines connect to a 1,500-gallon single compartment tank containing a MicroFAST 0.75 treatment system. Secondary level effluent will then flow by gravity into the previously mentioned 2,000-gallon dosing tank, to be dispersed through the subsurface drip dispersal system. The western line collects flows from the bathhouse in a 500-gallon single compartment tank, which then flow into approximately 195 lf of 8-inch SDR-35 PVC gravity main which also collects flows from three cabins into a second 500-gallon single compartment tank, before flowing into the 1,500-gallon single compartment treatment tank. The eastern line collects flows from the kitchen in a 500-gallon single compartment tank, which then flow into approximately 198 lf of 8-inch SDR-35 PVC gravity main which also collects flows from two RV sites and two cabins into a second 500-gallon single compartment tank before also flowing into the 1,500-gallon single compartment treatment tank.

The Memory Lane Events WWIS is located at 78 Walnut Grove Rd, Eldon, in Miller County, Missouri. The facility has a design average flow of 4,038 gpd and serves a hydraulic population equivalent of approximately 40 people.

COMPLIANCE PARAMETERS

The permitted project in CP0002439 shall meet the requirements of Missouri State Operating Permit MO-0139653. The facility shall follow the monitoring requirements identified in Table A-1: Irrigation System Limitations and Monitoring Requirements for Permitted Feature #001, Storage Basin.

Storage Basin Parameters	Units	Daily Total	Monthly Total	Measurement Frequency
Storage Basin Freeboard	feet	*		once/week
Precipitation	inches	*	*	daily

* Monitoring Only

Missouri Geological Survey verified that the existing well at Memory Lane Events, located at UTM coordinates: Zone 15S, X= 53482, Y=4233685, has been assigned certification number A230476 validating compliance with 10 CSR 23 and sections 256.600-256.640, RSMo. Therefore, the 100 ft setback between the well and the subsurface dispersal field is protective of water quality in the well per 10 CSR 23-3.010(1)(B).

3. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Existing major components that will remain in use include the following:

- **540-Gallon Septic Tanks** - Four Infiltrator IM-540 polypropylene STEP Tanks were installed during construction in the cabin area to act as septic tanks. Tanks are located after the bath house, after the kitchen, after cabin #4, and after cabin #3. Tanks will provide settling prior to the treatment tank, as required by the MicroFast 0.75 Biological Treatment Systems manufacturer's specifications. The septic tanks provide at least 2.5 days of detention at design average flow (66 gallons per cabin x 3 cabins = 198 gallons per day; 500 gallons/198 gallons = 2.5 days). Settled solids in the septic tanks shall be removed by a contract hauler.

Construction will cover the following items:

- The cabins and RV parking will have a collection system consisting of approximately 845 lf of 8-inch SDR-35 PVC gravity pipe with five manholes, four existing septic tanks, and a storage basin.
- Components are designed for a Population Equivalent of 40 based on a design average flow of 7.1 gpd per capita at the events center and 33.3 gpd per capita with 2 persons at each lot for the RV spots and cabins.

- **1,530-Gallon Septic Tank** – Infiltrator IM-1530 polypropylene two compartment tank, 62-inch wide x 176-inch long x 55-in deep with a working volume of 1,537 gallons, compartment A is 1,025 gallons and compartment B is 512 gallons. Located

after the event center to provide settling prior to the treatment tank, as required by the MicroFast 0.75 Biological Treatment Systems manufacturer's specifications. Septic tank effluent flows by gravity to the Equalization Basin.

- **Equalization Basin** – SI Precast Concrete 4,500 gallon commercial tank for the event center is 188-inch long x 82-inch wide x 92-inch. Located after the 1,530-Gallon Septic Tank, the Equalization Basin provides 1.26 days of detention based on the events center design average flow. The Equalization Basin contains two STA-RITE Step 10 pumps which pump flows to one of two MicroFast 0.75 Treatment Systems.
  - **STA-RITE Step 10 pump -** 0.5 hp/120 V submersible filtered effluent pumps, each capable of pumping 1 gpm against 9 ft of TDH.

- **Treatment Tank** - Two Infiltrator IM-1530 polypropylene single compartment tank, 62-inch wide x 176-inch long x 55-in deep, and a working volume of 1,537 gallons. These tanks contain a MicroFast 0.75 Biological Treatment System for secondary treatment prior to drip dispersal. The first Treatment Tank will be installed downstream of the 4,500-gallon Equalization Basin. The second Treatment Tank will be installed downstream of the campground septic tanks. Effluent from both Treatment Tanks will flow and combine in the 2,000-gallon Dosing Tank.
  - **MicroFast 0.75 Biological Treatment Systems** – Two MicroFast 0.75 Treatment Systems (MFTS) will be installed with matching specifications. Each MFTS will be capable of treating a design average flow of 750 gpd and a maximum pumped inflow rate of 5 gpm with a maximum hourly flow not to exceed 10 percent of the design daily flow. The MFTS shall come equipped with a regenerative type blower capable of delivering 17-25 CFM. The control panel is equipped with an alarm system consisting of a visual and audible alarm capable of signaling blower circuit failure and high-water conditions.

- **Subsurface Soil Dispersal System** –
  - **Soil Evaluation** - The soils at this site are rated for 0.2 gpd/sqft based on the limiting rate within a depth of 40-inches. Soil morphology review was conducted during the engineering report and construction permit application review. On site soils were determined to be acceptable for this system. The soil investigation was completed by Melissa Bettes, Certified Soil Scientist with MB Soil and Septic Consulting, LLC on October 15, 2020. In the soils investigation, there were two pits dug over the proposed irrigation site and one pit dug near the cabins.
    - **Soil Test Pit #1** – located in the irrigation area, had a surface soil that was described as gravelly silt loam with a limiting application rating of 0.2 gpd/ft² for an alternative system. Soils in this area were classified as provisionally suitable for alternative systems.
    - **Soil Test Pit #2** – located in the irrigation area, had a surface soil that was described as gravelly silt loam with a limiting application rating 0.2 gpd/ft² for an alternative system. Soils in this area were classified as provisionally suitable for alternative systems.
    - **Soil Test Pit #3** – located in the vicinity of the cabins, had a surface soil that was described as gravelly silt loam with a limiting application rating of 0.2

gpd/ft² for an alternative system. Soils in this area were classified as provisionally suitable for alternative systems.

- **Dosing Tank** – The SI Precast Concrete 2,000 gallon tank will collect wastewater from both of the MFTS. The dosing tank will have a high-water alarm and timer controls. A STA-RITE Step 20 pump, with a Disc Filter on the discharge side, will be used in the dosing tank to pressurize the Drip Irrigation System.
  - **STA-RITE Step 20 pump** – 0.5 hp/120 V submersible filtered effluent pump, capable of pumping 13 gallons per minute against 86 feet of head.
  - **Disc Filter** – BioDisc-150 mesh filter, maximum flow of 30 gpm.

- **Drip Irrigation System** – Design hydraulic loading rate of 0.2 gallons per square foot per day. The facility has selected the GEOFLOW subsurface drip dispersal system. The design average flow of the GEOFLOW drip system is 4,038 gpd. The silty loam onsite soils have the water storage capacity for this hydraulic loading rate with ample pore space for treating the anticipated organic loading of 1.46 pounds per acre per day.
  - 1.25-inch supply lines and 0.5-inch ID GeoFlow lines will be installed 8-inches deep. The drip distributing valve will be a GEOFLOW SVLVB-100, 1 inch solenoid valve. Six combo air/vacuum release valves will be installed.
  - The drip field area is 20,190 ft² and contains 10,095 linear feet of 1.25-inch tubing fitted with emitters every 2 ft. The system will dose six 3,365 ft² zones at 0.2 gpd/ ft², which provides 10 doses per day per zone.

4. OPERATING PERMIT

After completion of construction project, submit:

- Form MO 780-2155, Wastewater Construction Statement of Work Completed (https://dnr.mo.gov/forms/780-2155-f.pdf), and
- As-builts if the project was not constructed in accordance with previously submitted plans and specifications.

Missouri State Operating Permit, MO-0139653, will be issued after receipt of the above documents. Form MO 780-1512, Form B: Application for Operating Permit for Facilities that Receive Primarily Domestic Waste and Have a Design Flow Less Than or Equal to 100,000 gallons per day has been submitted to the Department along with an application fee of $150.

This facility does not meet the requirements of the MOG823000 expiring on August 24, 2027 due to the setbacks outlined in permit applicability condition 11.(a). This facility is not being converted to a general operating permit at this time. This facility will be re-evaluated at operating permit renewal to determine if it qualifies for a general operating permit.

V. NOTICE OF RIGHT TO APPEAL

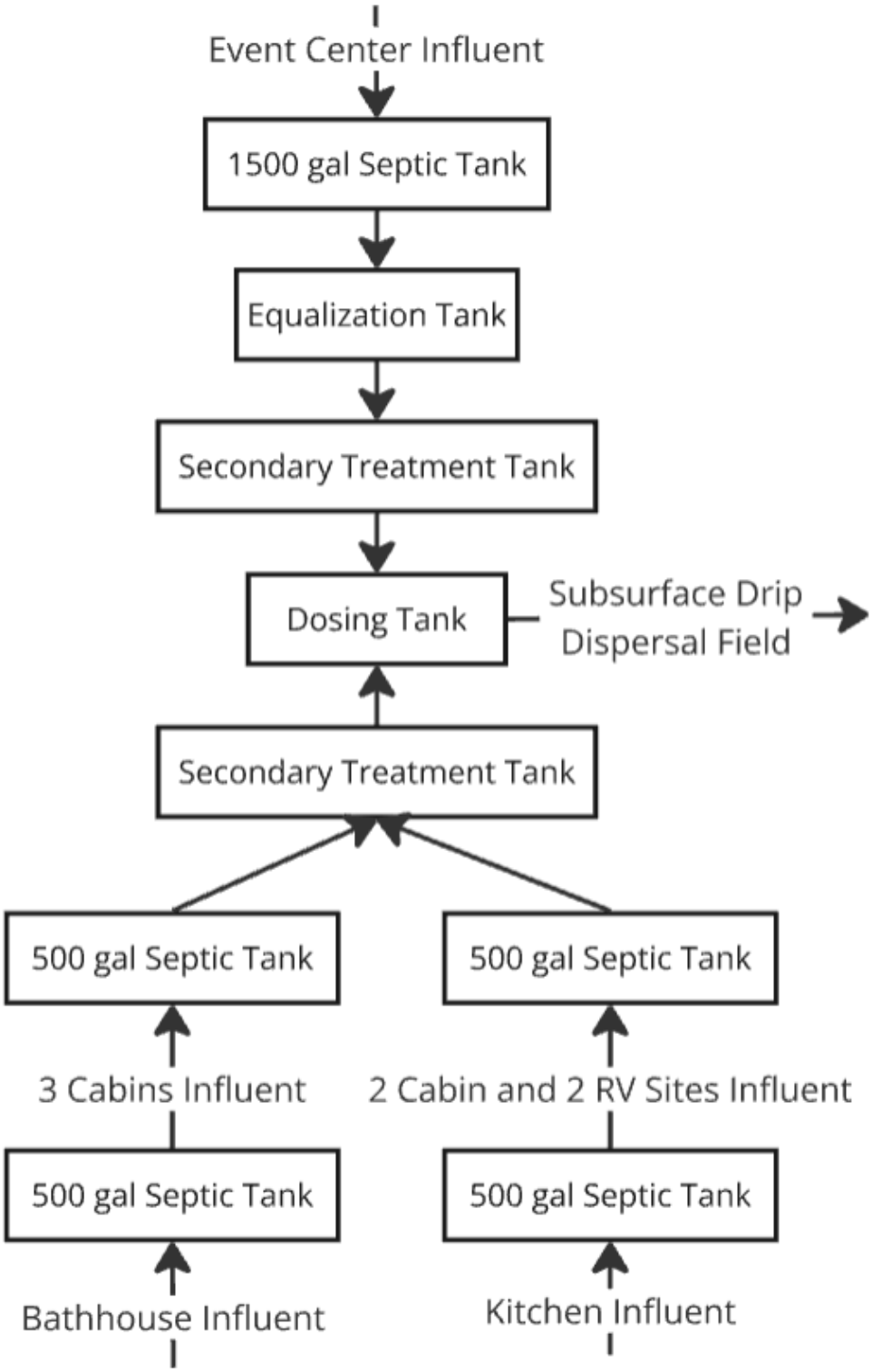
If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, 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

Katrice Williams
Engineering Section
katrice.williams@dnr.mo.gov

Chia-Wei Young, P.E.
Engineering Section
chia-wei.young@dnr.mo.gov

APPENDIX - Process Flow Diagram



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 _____

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
Memory Lane Events LLC - Onsite Sewer

2.2 ESTIMATED PROJECT CONSTRUCTION COST
$ 60000

2.3 PROJECT DESCRIPTION
Memory Lane Events LLC will consist of a 500 person event center with 5 cabins and 2 RV spots. It is designed to produce 4038 gallons and will be treated and dosed using a drip irrigation onsite system.

2.4 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION
N/A

2.5 DESIGN INFORMATION
A. Current population: _____; Design population: 500
B. Actual Flow: _____ gpd; Design Average Flow: 4038 gpd;
Actual Peak Daily Flow: _____ gpd; Design Maximum Daily Flow: _____ 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	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Memory Lane Events LLC - Onsite Sewer	573-216-4204	

ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE	COUNTY
78 Walnut Grove Road	Eldon	MO	65026	Miller

Wastewater Treatment Facility: Mo- (Outfall Of)

3.1 Legal Description: _____ ¼, _____ ¼, _____ ¼, Sec. _____, T _____, R _____
(Use additional pages if construction of more than one outfall is proposed.)

3.2 UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

3.3 Name of receiving streams: N/A

4.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Memory Lane Events LLC	573-216-4204	bert@abpest.net

ADDRESS	CITY	STATE	ZIP CODE
78 Walnut Grove Road	Eldon	MO	65026

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	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Memory Lane Events LLC	573-216-4204	bert@abpest.net

ADDRESS	CITY	STATE	ZIP CODE
78 Walnut Grove Rd	Eldon	MO	65026

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

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Ethan K. Shackelford/Alpha Engineering and Surv LLC	573-348-9799	ethan@alphaes.net

ADDRESS	CITY	STATE	ZIP CODE
PO Box 282	Osage Beach	MO	65065

7.0 APPLICATION FEE

☐ CHECK NUMBER ☑ JETPAY CONFIRMATION NUMBER 20021473

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	DATE
Bert Westbrook	01/12/2024

TITLE OR CORPORATE POSITION	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Owner	573-216-4204	bert@abpest.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.

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) _____

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: _____ (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 _____ Width _____ Depth _____ Freeboard _____ Depth _____ Safety _____ % Slope _____
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 _____ ft Minimum operating water level _____ 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: _____ ft Basin #2: _____ ft Basin #3: _____ ft

9.6 Existing sludge depth, if the basins are currently in operation.
Basin #1: _____ ft Basin #2: _____ ft Basin #3: _____ ft

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

10.0 LAND APPLICATION SYSTEM

10.1 Number of irrigation sites _____ Total Acres _____ Maximum % field slopes _____
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ Acres
Location: _____ ¼, _____ ¼, _____ ¼, _____ Sec. _____ T _____ R _____ County _____ 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 _____ Seasonal _____ Off-season _____

10.4 Land application rate (design flow including 1-in-10 year storm water flows):
Design: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week
Actual: _____ inches/year _____ inches/hour _____ inches/day _____ inches/week

10.5 Total irrigation per year (gallons): Design: _____ gal Actual: _____ 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

INSTRUCTIONS FOR COMPLETING
APPLICATION FOR CONSTRUCTION PERMIT – WASTEWATER TREATMENT FACILITIES

All blanks must be filled in when the application is submitted to the Missouri Department of Natural Resources. This includes the **required signature**.

Note: Use the form Application for Construction Permit – Sewer Extension, MO 780-1632, if only collection system component(s) are to be constructed.

A land disturbance permit is required if construction will result in the disturbance of one or more acres of land. A land disturbance permit is available through the department's ePermitting system at dnr.mo.gov/env/wpp/epermit/help.htm. A permit fee in accordance with 10 CSR 20-6.011 is required.

After receiving a complete application, the Department enters the application information into the Missouri Clean Water Information System. You may search for the status of a construction permit online at dnr.mo.gov/mocwis_public/applicationInprocessSearch.do.

Part A – Basic Application Information

1.0 If the answer to any of the questions in this section is no, this application may be considered incomplete and returned to the applicant.

1.1 Check the appropriate box. If the project is funded with federal or state monies, supply the funding agency name and project number.

1.2 Check the appropriate box. Provide the date of department approval for the antidegradation report. Include a copy of the approved *Water Quality and Antidegradation Review* with this application. Not every construction project may require an antidegradation review. For more information, guidance documents and forms concerning antidegradation visit dnr.mo.gov/env/wpp/permits/antideg-implementation.htm.

1.3 Check the appropriate box and provide the date of department approval. Per 10 CSR 20-8.110(2), a facility plan must be submitted to the department prior to the submittal of a construction permit application. The department has developed a fact sheet to aid in the development of an approvable facility plan, Facility Plan Guidance for Wastewater Treatment Facilities, Fact Sheet--PUB2416.

1.4 Complete only if No. 1.3 is answered No. Check the appropriate box. Include the exemption reason from 10 CSR 20-6.010(4)(B).

1.5 Check the appropriate box. Provide a copy of the appropriate plans and specifications for department review when applying for a construction permit per 10 CSR 20-8.110 and 10 CSR 20-6.010. A Missouri registered professional engineering seal, signature and date is required on each sheet of the plans and the cover of the technical specifications. An electronic copy of the construction permit application and the information listed below in Portable Document Format (PDF) searchable format or department approved equivalent per 10 CSR 20-6.010(5)(G), along with one (1) paper copy for projects not seeking department funding or two (2) paper copies for projects seeking department funding under 10 CSR 20-4.

1.6 Check the appropriate box. A summary of design shall accompany the plans and specifications when applying for a construction permit per 10 CSR 20-6.010(5)(G) and10 CSR 20-8.110(8). The department has developed a fact sheet to aid in the development of an acceptable summary of design. This document is available online at dnr.mo.gov/pubs/pub2417.htm.

1.7 Check the appropriate box if an operating permit modification is needed. Include the applicable operating permit application. New outfalls, discharges, projects converting to land application, or a lagoon upgrade require an operating permit modification application. Contact the Department for clarification. Projects that may not need an operating permit modification check the N/A box and indicate whether you want to review the draft prior to public notice should the Department determine a modification is required. The Department can modify your operating permit without an application for projects that are adding chlorine disinfection, constructing to meet current operating permit limits, or constructing to meet limits in a schedule of compliance.

- Form A is available online at dnr.mo.gov/forms/780-1479-f.pdf.
- Form B is available online at dnr.mo.gov/forms/780-1512-f.pdf.
- Form B2 is available online at dnr.mo.gov/forms/780-1805-f.pdf.

1.8 Check the appropriate box. More information about the Compliance and Enforcement Water Protection Program is available online at dnr.mo.gov/env/wpp/enf/index.html.

1.9 Check the appropriate box. Include payment or payment confirmation for the fee with your application. See 10 CSR 20-6.011(2) and Wastewater Treatment Facility Permit Fees -- PUB2564.

Note: The department returns incomplete construction permit applications and related engineering documents and the application forfeits the fees. See 10 CSR 20-6.011(5)(A). The applicant forfeits the fees when the applicant withdraws construction applications. See 10 CSR 20-6.011(5)(B).

2.1 Provide the name of the proposed construction project.

2.2 Provide the estimated project construction cost. The estimated and final project construction cost will be useful to the department in conducting affordability analyses.

2.3 Briefly describe the construction project by providing the number and capacity of each new unit.

2.4 Briefly describe the method of sludge handling, use and disposal at the treatment facility.

2.5 Provide the project design information and when required in the units specified.

A. Provide the current population and the design population to be served by the wastewater treatment facility.

B. Provide the estimated design flow information in accordance with 10 CSR 20-8.110(3).

2.6 Provide the additional project information in accordance with 10 CSR 20-8.110(5).

A. Attach a topographic map of the area extending at least one mile beyond the facility property boundaries. This map must show the outline of the facility and the following information. A topographic map is available online at dnr.mo.gov/internetmapviewer or from the Department of Natural Resources' Missouri Geological Survey in Rolla, Mo., at 573-368-2125. (Submittals of more than one map may be necessary to show the entire area.)

1. The area surrounding the wastewater treatment facility, including all unit processes.
2. The major pipes or other structures through which wastewater enters the treatment facility and the pipes or other structures through which treated wastewater is discharged from the treatment facility. Include outfalls from bypass piping, if applicable.
3. The actual point of discharge.
4. Wells, springs, other surface water bodies and drinking water wells that are: 1) within ¼ mile of the property boundaries of the treatment facility and 2) listed in public record or otherwise known to the applicant.
5. Any areas where biosolids produced by the treatment facility are treated, stored, or disposed.
6. If the treatment facility receives waste classified as hazardous under the Resource Conservation and Recovery Act, or RCRA, by truck, rail, or special pipe, show on the map where hazardous waste enters the treatment works and where it is treated, stored or disposed.
7. Outline any wastewater land application sites.

B. Provide a process flow diagram with the influent and effluent design average flow and peak flow capabilities. Also, depict all of the treatment facility components and the corresponding hydraulic capacities of each component. In addition, include all recycle flows in the diagram. If land application is used, depict all irrigation equipment and application sites.

3.0 Complete the Wastewater Treatment Facility information. Include the Missouri State Operation Permit number, outfall number, physical location, and other appropriate contact information.

3.1 Provide the project legal description. The department's mapping system is available online at dnr.mo.gov/internetmapviewer.

3.2 A Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used and the displayed coordinates submitted. If access to a GPS receiver is not available, use a mapping system to approximate the coordinates.

3.3 Provide the name of the receiving stream(s) to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.

4.0 Complete Project Owner information. Include the legal name, address, phone number with area code and email address.

5.0 Complete Continuing Authority contact information. If same as the Project Owner, write "Same as above". 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. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit https://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf. A continuing authority's name must be listed exactly as it appears on the Missouri Secretary of State's (SoS's) webpage: https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0, unless the continuing

authority is an individual(s), government, or otherwise not required to register with the SoS. See 10 CSR 20-6.010(2) for the regulatory requirement regarding continuing authority.

5.1 Check the appropriate box. Include a letter signed by the continuing authority (if not same as the project owner) stating they will "accept, operate and maintain" the wastewater treatment facility after successful construction.

If the continuing authority will not accept and agree to operate and maintain the wastewater treatment facility, this application will be considered incomplete.

5.2 Complete if the continuing authority is a Missouri Public Service Commission, or PSC, regulated entity. See 10 CSR 20-6.010(2)(B)3 for more information. This information is not necessary for existing wastewater treatment facilities currently permitted with a PSC entity as owner and continuing authority.

5.3 Complete if the continuing authority is a property owners association. See 10 CSR 20-6.010(2)(B)5 for more information. This information is not necessary for existing wastewater treatment facilities currently permitted with the property owners association as owner and continuing authority.

6.0 Complete Engineer contact information.

7.0 Check the appropriate box and include check or confirmation number. Applicants can pay fees online by credit card or eCheck through a system called JetPay.

- Per Section 37.001, RSMo, a transaction fee will be included. The transaction fee is paid to the third party vendor JetPay, not the Department of Natural Resources.
- Be sure to select the correct fee type and corresponding URL to ensure your payment is applied appropriately. If you are unsure what type of fee to pay, please contact the Water Protection Program's Budget, Fees, and Grants Management Unit by phone at (573) 522-1485 for assistance.
- Upon successful completion of your payment, JetPay provides a payment confirmation. Submit this form with a copy of the payment confirmation if requesting a new permit or a permit modification. For permit renewals of active permits, the Department will invoice fees annually in a separate request.
- If you are unable to make your payment online, but want to pay with credit card, you may email your name, phone number, and invoice number, if applicable, WPPFEES@dnr.mo.gov. The Budget, Fees, and Grants Management Unit will contact you to assist with the credit card payment. **Please do not include your credit card information in the email.**
- Applicants can find fee rates in 10 CSR 20-6.011 and Wastewater Treatment Facility Permit Fees -- PUB2564 (https://dnr.mo.gov/pubs/pub2564.htm).

WP 04 Construction Permits: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/592/

8.0 The owner of the construction project must sign the application.

Part B – Land Application

Complete Part B only if the proposed construction project includes land application of wastewater from a treatment facility.

8.0 Provide the applicable Facility Information land application information. Check the appropriate boxes.

9.0 Provide the applicable Storage Basins information. Check the appropriate boxes.

- Freeboard – The depth from the top of the berm to the emergency spillway. Minimum depth • is one foot.
- Safety Volume – The depth to contain the 25-year, 24-hour storm event. Minimum depth is • one foot.
- Maximum Operating Water Level – The water level at the bottom of the safety volume. • Minimum depth is two feet below the top of the berm.
- Minimum Operating Water Level – The water level above the bottom of the lagoon basin for • seal protection. Minimum depth is two feet and may be greater when additional treatment volume is included.
- Total Depth is from the top of the berm to the bottom of the lagoon basin including freeboard.•

10.0 Provide the applicable Land Application System information. Check the appropriate boxes.

10.7 Check the appropriate box. If the land application rate is based on a Nutrient Management Plan, or N and P, include the plan with this application for department review.

Mail the completed form and applicable fee to the department.

If there are any questions concerning this form, please contact the Department of Natural Resources, Water Protection Program at 800-361-4827 or 573-751-1300 or visit dnr.mo.gov/env/wpp.