



## PUBLIC NOTICE

### DRAFT MISSOURI STATE OPERATING PERMIT

DATE: May 12, 2017

In accordance with the state Clean Water Law, Chapter 644, RSMo, Missouri Clean Water Commission regulation 10 CSR 20-6.010, and the Federal Clean Water Act, the applicants listed herein have applied for authorization to either discharge to waters of the state, or to operate a no-discharge wastewater treatment facility. The proposed permits for these operations are consistent with applicable water quality standards, effluent standards and/or treatment requirements or suitable timetables to meet these requirements

(see 10 CSR 20-7.015 and 7.031). All permits will be issued for a period of five years unless noted otherwise in the Public Notice for that discharge.

On the basis of preliminary staff review and the application of applicable standards and regulations, the Missouri Department of Natural Resources, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions. The proposed determinations are tentative pending public comment.

Persons wishing to comment on the proposed permit conditions are invited to submit them in writing to: Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, ATTN: NPDES Operating Permits /Permit Comments. **Please include the permit number in all comment letters.**

Comments should be confined to the issues relating to the proposed action and permit(s) and the effect on water quality. The department may not consider as relevant comments or objections to a permit based on issues outside the authority of the Missouri Clean Water Commission, (see Curdt v. Mo. Clean Water Commission, 586 S.W.2d 58 Mo. App. 1979).

All comments must be received or postmarked by 5:00 p.m. on June 12, 2017. The department will consider all written comments, including e-mails, faxes and letters, in the formulation of all final determinations regarding the applications. E-mail comments will be accepted at the following address: [publicnoticenpdes@dnr.mo.gov](mailto:publicnoticenpdes@dnr.mo.gov). If response to this notice indicates significant public interest, a public meeting or hearing may be held after due notice for the purpose of receiving public comment on the proposed permit or determination. Public hearings and/or issuance of the permit will be conducted or processed according to 10 CSR 20-6.020.

Copies of all draft permits and other information including copies of applicable regulations are available for inspection and copying at the department's Website: <http://www.dnr.mo.gov/env/wpp/permits/permit-pn.htm>, or at the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, Missouri 65102, between the hours of 8:00 a.m. and 5:00 p.m., Monday through Friday.

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI CLEAN WATER COMMISSION



## MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law (Chapter 644 R.S. Mo. as amended, hereinafter, the Law) and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

Permit No.: MO-G823000

Owner: <Owner's Name>  
Address: <Owner's Address>

Continuing Authority: <Name, or Same as above>  
Address: <Address, or Same as above>

Facility Name: <Facility Name>  
Facility Address: <Physical Address>

Legal Description: ¼, ¼, ¼, Sec. xx, TxxN, RxxW, < county > County  
UTM Coordinates: X= , Y= (round to the nearest whole number)

Receiving Stream: <receiving stream > <(C, P, L1, L2, L3)>  
First Classified Stream and ID: <1<sup>st</sup> classified stream> <(C, P, etc.)> <(ID number)> 303(d) List  
USGS Basin and Sub-watershed No.: <(USGS HUC14 #)>

is authorized to discharge from the facility described herein, in accordance with the effluent limitations, benchmarks, and monitoring requirements as set forth herein.

### FACILITY DESCRIPTION

All Outfalls – SIC 4952, 6515, 8641

No-discharge, private domestic wastewater treatment facilities with design flows of less than 50,000 gallons per day and/or pumping and hauling of domestic wastewater.

This permit authorizes only pumping and hauling of domestic wastewater or no-discharge private domestic wastewater treatment or holding facilities under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 621.250, 640.013, and 644.051.6, RSMo; 10 CSR 20-1.020 and 20-6.020 of the Law.

**DATE, 2017**

Effective Date

Steven Feeler, Acting Director, Division of Environmental Quality

**DATE, 2022**

Expiration Date

David J. Lamb, Acting Director, Water Protection Program

## APPLICABILITY

1. This permit authorizes the operation of no-discharge domestic wastewater treatment facilities, with no industrial contributions. Domestic wastewater originates from sanitary conveniences of residences, commercial buildings, factories and institutions, including any stormwater which may have infiltrated into the sewers. This includes permittees (facilities) with the following primary Standard Industrial Classification (SIC) codes:

<u>SIC Code</u>	<u>Activity</u>
4952	Sewerage systems
6515	Residential Mobile Home Parks
8641	Home Owners Associations

or facilities that the Missouri Department of Natural Resources (department) determines are fundamentally the same as facilities that are under the above SIC codes.

2. This permit does not cover land disturbance activities. A land disturbance general permit must be obtained for coverage of land disturbance activities and may be obtained through electronic permitting (ePermitting) at <http://dnr.mo.gov/env/wpp/epermit/help.htm>.
3. For the purposes of this permit, *wastewater irrigation* shall mean any surface application of wastewater, including materials that are incorporated into the soil or 'knifed in.' *Subsurface absorption or dispersal* shall mean systems with primary treatment prior to wastewater entering stationary subsurface distribution lines in the soil. The distribution lines may be pressurized or non-pressurized.
4. For the purpose of this permit, a *wastewater irrigation facility* is a facility where domestic wastewater is irrigated or stored for subsequent irrigation, including earthen basins. The term *wastewater irrigation facility* also applies to haulers who irrigate wastewater. Such haulers must obtain a permit per Standard Conditions III, Section D.
5. For the purpose of this permit, *permitted wastewater irrigation sites* shall be defined as those owned, rented or leased by the permittee. These sites must be listed in the facility description. Wastewater irrigation by permitted contract haulers to sites with a spreading agreement that are not owned, rented or leased by the facility producing or spreading the wastewater are not required to be listed in this permit for the originating facility; however, the contract hauler shall maintain a list of addresses, county plat numbers, or a marked map of these sites as part of their record keeping for the Operation and Maintenance Manual described under permit requirements.
6. All owners of new (since January 12, 2015) no-discharge facilities that receive more than 3,000 gallons per day of domestic wastewater and have their waste pumped and hauled by a contract hauler are required to obtain construction and operating permits from the department.
7. Domestic wastewater shall have undergone at least primary treatment before surface wastewater irrigation or subsurface dispersal. Secondary treatment is recommended for subsurface dispersal systems to extend the functional life span of the system. The following facilities are **excluded** from this permit:
  - (a) Municipal wastewater treatment facilities or other publicly owned treatment works (POTWs) per 10 CSR 20-2.010(59) (these facilities must obtain a site-specific permit); or
  - (b) Facilities with industrial wastewater contributions. Industrial wastewater includes any water that comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, by-product or waste product. This includes effluent from car washes and similar industrial wastewater as well as both contact and non-contact cooling water. Any water that would otherwise have been considered domestic wastewater, but is contaminated with industrial materials, becomes industrial wastewater.
8. This permit authorizes sludge handling according to the methods contained in the attached Standard Conditions Part III, dated March 1, 2015. If assistance is needed regarding the handling of sludge, facilities are directed to contact the department's appropriate regional office.
9. This permit is not applicable to facilities that surface irrigate wastewater to a public use area, such as a golf course. A subsurface system that is used at a public use area may be authorized by this permit, if all the applicable requirements of this permit are met. Facilities that apply wastewater to a public use area by any method other than a subsurface system must obtain a site-specific permit and are subject to additional requirements, including, but not limited to, disinfection.

10. This permit does not authorize construction of a wastewater treatment facility including surface wastewater irrigation and subsurface dispersal systems. Prior to construction or modification of any domestic wastewater treatment system, the facility must first obtain a construction permit in accordance with 10 CSR 20-6.010(4). Facilities must be designed according to 10 CSR 20-8.
11. Surface wastewater irrigation and subsurface dispersal authorized by this permit shall not occur within:
  - (a) 300 feet upstream of streams, lakes, or reservoirs with the designated use of drinking water supply, any public or privately owned well or other drinking water supply;
  - (b) 300 feet of a Class W<sup>1</sup> or mitigated wetland;
  - (c) 300 feet of sinkholes or other direct conduit to groundwater;
  - (d) 150 feet of an occupied residence, public building or public use area;
  - (e) 50 feet of the permitted facility's property line, public road, or drainage ditch;
  - (f) 500 feet of an Outstanding State Resource Water<sup>1</sup> (OSRW) or Outstanding National Resource Water<sup>1</sup> (ONRW);
  - (g) 100 feet of any perennial or intermittent streams or tributaries, public or privately owned ponds or lakes;
  - (h) 1,000 feet upstream of streams, lakes, or reservoirs identified as critical habitat for endangered species; or
  - (i) 1,000 feet upstream of biocriteria reference locations<sup>1</sup>.
12. For facilities operating within the watershed of Outstanding National Resource Waters<sup>1</sup> (ONRW), which includes the Ozark National Riverways and the National Wild and Scenic Rivers System, this permit authorizes no-discharge facilities as defined in 10 CSR 20-6.015(1)(B) to operate.
13. This permit does not apply to facilities employing direct reuse of treated wastewater. Such facilities must disinfect year-round, and may be required by the department to obtain the services of a certified operator in order to ensure protection of public health.
14. Holders of current individual, site-specific permits who desire to apply for inclusion under this general permit should contact the department for application requirements and procedures.
15. If at any time, the owner of the permitted facility should desire to apply for a site-specific permit, the owner may do so.
16. This permit does not apply to rapid infiltration wastewater irrigation systems where groundwater monitoring may be required.
17. The department may require any facility authorized by a general permit to apply for a site-specific permit [10 CSR 20-6.010(13)(C)]. Cases where a site-specific permit may be required include, but are not limited to, the following:
  - (a) The department determines that the quality of waters of the state may be better protected by requiring the owner/operator of a permitted site to apply for a site-specific permit;
  - (b) The discharger is not in compliance with the conditions of the general permit;
  - (c) A Total Maximum Daily Load (TMDL) containing requirements applicable to the permit is approved.
18. A single-family lagoon serving an individual residence on an individual lot is the jurisdictional responsibility of the Missouri Department of Health and Senior Services, Onsite Wastewater Treatment Program or the local onsite wastewater authority and does not qualify for the no-discharge lagoon exemption or this operating permit.

#### **EXEMPTIONS FROM PERMIT REQUIREMENTS**

1. All 3,000 gallons per day or less no-discharge domestic wastewater facilities that land apply may be considered exempt, unless it is determined by the department that the operating practices are not adequate and that an operating permit is necessary to protect public health and the environment.
2. One time or short-term wastewater irrigation events during clean-up of spills or environmental emergencies are exempted with prior approval from the department.

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<sup>1</sup> Identified or described in 10 CSR 20-7. These regulations are available at many libraries and online at [www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp](http://www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp), or may be purchased from the department by calling the department's Water Protection Program.

3. The exemptions listed above from no-discharge permit requirements are allowed unless required under 10 CSR 20-6.015(2)(B). Permits may be required from otherwise exempt facilities where necessary to protect the environment, including:
  - (a) To correct noncompliance;
  - (b) To ensure when the department has determined that construction or operating practices are not adequate, that the facility will be operated in a no-discharge manner;
  - (c) To require, by departmental determination from an on-site visit, that construction and operating permits are necessary for special operating controls or monitoring and reporting of site-specific conditions such as groundwater effects, surface runoff, waste or wastewater characteristics, topography, geology, watershed factors or wastewater irrigation loading rates;
  - (d) When an unauthorized discharge has occurred or has the potential to occur;
  - (e) When a discharge results in violation of water quality standards under 10 CSR 20-7.031; or
  - (f) Other relevant factors.

**PERMIT REQUIREMENTS** (Applicable to all facilities)

1. **Electronic Discharge Monitoring Report (eDMR) Submission System.**  
Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally-consistent set of data about the NPDES program. All general permit covered facilities under this master general permit shall comply with the department's requirements for electronic reporting.
  - (a) **Discharge Monitoring Reporting Requirements.**
    - 1) Application to participate in the department's eDMR system is required as part of the application for general permit coverage in order to constitute a complete permit application. General information may be accessed at [dnr.mo.gov/env/wpp/edmr.htm](http://dnr.mo.gov/env/wpp/edmr.htm) and the [eDMR Permit Holder and Certifier Registration form \(Form MO 780-2204\) at http://dnr.mo.gov/forms/780-2204-f.pdf](http://dnr.mo.gov/forms/780-2204-f.pdf).
    - 2) The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only department approved reporting method for this permit.
    - 3) If a subcategory of this permit requires no discharge monitoring report or annual operational report to be submitted and that subcategory is the only applicable requirement, participation in eDMR is not required (e.g., subsurface dispersal). A waiver is not required if reporting is not required per the permit.
  - (b) **Other actions.** The following shall be submitted electronically after such a system has been made available by the department:
    - 1) General Permit Applications/Notices of Intent to discharge (NOIs);
    - 2) Notices of Termination (NOTs);
    - 3) No Exposure Certifications (NOEs); and
    - 4) Low Erosivity Waivers (LEWs) and Other Waivers from Stormwater Controls.
  - (c) **Electronic Submissions.** To access the eDMR system, use the following link in your web browser: <https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx>.
  - (d) **Waivers from Electronic Reporting.**
    - 1) The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127.
    - 2) The permittee may obtain a temporary or permanent electronic reporting waiver by first submitting an eDMR Waiver Request Form (Form 780-2692): <http://dnr.mo.gov/forms/780-2692-f.pdf>, by contacting the appropriate permitting office or emailing [edmr@dnr.mo.gov](mailto:edmr@dnr.mo.gov). The department will either approve or deny this electronic reporting waiver request within 120 calendar days of receipt.
    - 3) Only permittees with an approved waiver request may submit monitoring data and reports on paper to the department for the period that the approved electronic reporting waiver is effective.
2. Wastewater treatment systems owned or operated by a private sewer company regulated by the Public Service Commission shall comply with any applicable requirements listed in 10 CSR 20-9, including the requirement to obtain a certified operator, unless the facility has received written notification that the department has approved a modification to the requirements. The conditions contained in this permit shall not be construed by the facility as a modification of the requirements listed in 10 CSR 20-9.
3. All surface wastewater irrigation and subsurface dispersal locations must be displayed on a map and made available to the department upon request. Access to the storage basin(s), tank(s), and any associated wastewater irrigation equipment must be sufficiently restricted or secured to prevent entry by children, livestock and unauthorized persons. Subsurface dispersion field should have controlled access to prevent damage to the system. Any applicable access hatches and alarm control panels shall remain locked at all times unless undergoing maintenance or pumping activities.



4. If fenced, at least one gate must be provided to access the wastewater treatment facility and provide for maintenance and mowing. The gate shall remain locked except when opened by the permittee to perform operational monitoring, sampling, maintenance, mowing, or for inspections by the department.
5. At least one (1) warning sign shall be placed on each side of the facility (does not pertain to irrigation fields) in such positions as to be clearly visible from all directions of approach. There shall also be one (1) sign placed for every five hundred feet (500') (150 m) of the perimeter fence, if area is fenced. A sign shall also be placed on each gate, if applicable. Minimum wording shall be WASTEWATER TREATMENT FACILITY—KEEP OUT. Signs shall be made of durable materials with characters at least two inches (2") high and shall be securely fastened to the fence, equipment or other suitable locations.
6. An all-weather access road shall be provided and maintained for access to the treatment facility.
7. The permittee will cease operation/pumping and hauling by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3) within 90 days of notice of its availability unless such facility does not have sufficient capacity, jurisdiction, or is forbidden by statute or ordinance from providing service and has provided a written waiver of preferential status.
8. There shall be no discharge of any material from this facility to waters of the state. Wastewater shall be stored and irrigated during suitable conditions or pumped and hauled so that there is no-discharge from the storage basins/holding tanks or irrigation sites. The permittee shall take necessary steps to ensure wastewater is either irrigated in accordance with the requirements of this permit or collected and properly disposed of at a permitted treatment facility. Any discharge to waters of the state is to be reported to the department during normal business hours or to the Environmental Emergency Response hotline at 573-634-2435 outside of business hours, but always within 24 hours of the discharge. Any discharge shall be monitored according to Table C of this permit.
9. Any discharge from a no-discharge facility will be considered a violation of this permit unless a catastrophic or chronic storm event as defined in 10 CSR 20-6.015(1)(B) occurs. During a catastrophic or chronic storm event, the no-discharge facility is authorized to release only the amount of stormwater required to prevent damage to the facility or established Best Management Practices (BMPs).
10. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit, which can be found at 10 CSR 20-6.011 (644.055, RSMo.).
11. Facilities desiring coverage under this permit shall be constructed and operated in accordance with 10 CSR 20-8. Exceptions or deviations may be considered by the department when appropriate, and authorized in writing (such as in a construction permit). Facilities not constructed in accordance with current design standards may be required to obtain a site-specific permit, or must upgrade to meet current design standards, when determined necessary to protect waters of the state.
12. The permittee shall develop, maintain and implement an Operation and Maintenance (O&M) Manual that includes all necessary items to ensure the operation and integrity of the waste handling and wastewater systems, including key operating procedures, an aerial or topographic site map with the permitted features, irrigation/dispersal fields, and set back/buffer zones marked, and a brief summary of the operation of the facility. The O&M manual shall be made available to the operator and to department personnel on request and shall be reviewed and updated at least every five (5) years or whenever there is a change in equipment or irrigation sites. The department has published a *No Discharge Operation and Maintenance Manual Checklist* (PUB02704) fact sheet available at <http://dnr.mo.gov/pubs/pub2704.htm> that may be used as a guide.
13. Surface systems and land application sites shall be visually inspected at least once/day when wastewater irrigation or dispersal occurs to check for equipment malfunctions and runoff from the sites.
14. Subsurface systems and application sites shall be visually inspected at least once/month to check for equipment malfunctions and runoff from the sites.

**SURFACE WASTEWATER IRRIGATION OPERATIONAL REQUIREMENTS**

<b>TABLE A</b>		<b>WASTEWATER IRRIGATION FACILITY MONITORING REQUIREMENTS</b>				
The facility is authorized to conduct wastewater irrigation of domestic wastewater as specified in this permit. The irrigation of domestic wastewater shall be controlled, limited, and monitored by the facility as specified below:						
<b>Surface Wastewater Irrigation Operational Monitoring (Note 1)</b>						
Limit Set: LA						
PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY TOTAL	SAMPLING FREQUENCY	SAMPLE TYPE
Irrigation Period	hours	*		*	daily	total
Volume Irrigated	gallons	*		*	daily	total
Application Area	acres	*		*	daily	total
Application Rate	inches	*		*	daily	total
WASTEWATER IRRIGATION MONITORING REPORTS SHALL BE SUBMITTED MONTHLY VIA THE DEPARTMENT'S eDMR SYSTEM. SHOULD A WAIVER TO eDMR BE GRANTED BY THE DEPARTMENT, PAPER REPORTS SHALL BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE. REPORTS ARE DUE <b>DATE 28, 20XX</b> FOR THE PREVIOUS MONTH. IT IS A VIOLATION OF THIS PERMIT TO FAIL TO REPORT AS REQUIRED.						

- \* Monitoring requirement only. Monitor as required in this table and report resulting value monthly.
- Note 1 – Facilities shall monitor required parameters when wastewater irrigation occurs during the reporting period. Daily monitoring is required only when wastewater irrigation occurs. If irrigation does not occur during the reporting period, no reporting for limit set LA is required for that reporting period.
1. This general permit authorizes the surface wastewater irrigation of only domestic wastewater. There shall be no surface wastewater irrigation of any pollutant in sufficient amounts to cause harm to the soil structure or productivity, or cause stress or toxicity to plant life.
  2. Treatment of wastewater prior to application shall be adequate to prevent nuisance conditions from occurring in the treatment facility, storage basins or on the application site per 10 CSR 20-8.220(5)(A).
  3. Surface wastewater irrigation of domestic wastewater:
    - (a) Shall not result in a surface ponding or runoff of wastewater from wastewater irrigation fields;
    - (b) Shall not occur during ground frost, frozen, snow covered, or saturated soil conditions, or when precipitation is imminent or occurring;
    - (c) Shall occur during daylight hours;
    - (d) Shall not occur on slopes exceeding 20 percent (%);
    - (e) Shall occur at one-half the hourly application rate on slopes over 10 percent (%) and up to 20%.
  4. Per 10 CSR 20-8.020(15)(F)6., hourly application rates shall not exceed one-half (1/2) inch per hour.
  5. Wastewater may be surface irrigated to hay, row crop or timber. Surface application rates shall not exceed 1.0 inch per day, 3.0 inches per week or 24 inches per year.
  6. Due to the lack of disinfection requirements in this permit, public access to surface wastewater irrigation area must not be allowed by the permittee.
  7. Wastes shall be surface irrigated using a system that shall be operated so as to provide uniform distribution of waste materials over the entire application site. Dumping in batches or piles, or spreading of a pile using a blade, disc, or similar equipment is not acceptable.
  8. Surface wastewater irrigation sites shall be well vegetated during the application periods or vegetation should be established as soon as practicable after waste incorporation within the normal crop planting and harvesting season. The use of cover crops may be utilized in keeping wastewater irrigation sites vegetated.
  9. Grazing and harvesting deferment [10 CSR 20-8.020(15)(F)10]. Grazing of animals or harvesting of forage crops should be deferred for up to thirty (30) days following wastewater irrigation depending upon ambient air temperature and sunlight conditions. The following deferments shall be considered:
    - (a) During the period from May 1 to October 31 of each year, the minimum deferment from grazing or forage harvesting shall be fourteen (14) days;

- (b) During the period from November 1 to April 30 of each year, the minimum deferment from grazing or forage harvesting shall be thirty (30) days;
  - (c) Grazing of wastewater irrigated land is generally not recommended for gestating or lactating dairy animals unless there has been a much longer deferment period. The recommendations of the State Milk Board shall be followed; and
  - (d) Deferment may not be required for irrigated disinfected wastewater. Disinfected wastewater needs to meet the public access requirement of one hundred twenty six per one hundred milliliters (126 colonies/100 mL).
10. When surface wastewater irrigation occurs on food crops, feed crops, fiber crops and/or turf crops, harvesting said crops will be carried out in strict adherence to the restrictions set forth in 10 CSR 20-8.220.

**EARTHEN STORAGE BASIN OPERATIONAL REQUIREMENTS**

<b>TABLE B</b>		<b>EARTHEN STORAGE BASIN MONITORING REQUIREMENTS</b>				
The facility is authorized to conduct storage of domestic wastewater as specified in this permit. The storage of domestic wastewater shall be controlled, limited, and monitored by the facility as specified below:						
<b>Storage Basin Operational Monitoring</b> Limit Set: SB						
PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING	
		DAILY MINIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Storage Basin Freeboard (Note 1)	feet	*			once/month	measured
	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
Precipitation	inches	*			daily	24 hour estimate
STORAGE BASIN MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT’S eDMR SYSTEM. SHOULD A WAIVER TO eDMR BE GRANTED BY THE DEPARTMENT, PAPER REPORTS SHALL BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE. REPORTS ARE DUE <b>DATE 28, 20XX</b> FOR THE PREVIOUS MONTH. IT IS A VIOLATION OF THIS PERMIT TO FAIL TO REPORT AS REQUIRED.						

- \* Monitoring requirement only. Monitor as required in this table and report resulting value monthly.
- Note 1 – Storage basin freeboard shall be reported as storage basin water level in feet below the overflow level and shall be reported as a daily minimum. If the facility does not have a storage basin the facility shall not be assigned this permitted feature and storage basin operational monitoring and reporting is not required.
1. In order to ensure proper operation, maintenance and maximum storage capacity for the winter months when soil conditions may not be suitable for wastewater irrigation, the storage basin(s) shall be:
    - (a) Lowered to the minimum operating level during the months of September through November unless the department approves a specific deviation from this requirement; or
    - (b) The basin’s design provides sufficient capacity to prevent discharge as approved by the department per 10 CSR 20-8.
  2. Storage basins shall be inspected monthly for structural integrity and leaks.
  3. The minimum and maximum operating water levels for each storage basin shall be clearly marked. Each basin shall be operated so that freeboard is more than two (2) feet below the overflow point except during a catastrophic or chronic storm event as defined in 10 CSR 20-6.015(1)(B). See Emergency Bypass conditions below.
  4. Earthen storage basins shall have an emergency spillway to protect the structural integrity of earthen structures during operation at near full water levels and in the event of overflow conditions. The spillway shall be at least one foot below top of berm. It is a violation of this permit to place material in the emergency spillway or otherwise cause it to cease to function properly, as this may result in a catastrophic failure of the storage basin.
  5. The facility shall ensure that adequate provisions are made to prevent surface water intrusion into the storage basin(s) and to divert stormwater runoff around the storage basin(s) to protect embankments from erosion.
  6. The inner and outer berm slopes of the storage basin (if applicable) shall be maintained in such a way as to remain consistent with design standards. Special consideration shall be given to methods of access to prevent damage to the berm. The berms of storage basins shall be mowed and kept free of deep-rooted vegetation, animal dens or other potential sources of damage to the structural integrity of the berms.



7. Bypasses are not authorized at this facility and are subject to 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2. Bypasses are to be reported to the appropriate department regional office. Any discharge from storage basins shall be reported to the department as a bypass as soon as possible, but always within 24 hours of the facility becoming aware of the discharge, whether or not the permittee believes such discharges reach waters of the state.
8. **Emergency Bypass:**
  - (a) An emergency discharge from wastewater storage structures may only occur if rainfall exceeds the 10-year 365-day rainfall event (chronic) or the 25-year 24-hour rainfall event (catastrophic) according to National Weather Service data. Design Storm Maps and Tables can be found at [http://ag3.agebb.missouri.edu/design\\_storm/](http://ag3.agebb.missouri.edu/design_storm/) or [http://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=mo](http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mo).
  - (b) The facility shall make all reasonable attempts to return the water level in the basin to below the maximum operating level.
  - (c) **Monitoring:** Any emergency discharge shall be monitored daily for five consecutive days beginning within six (6) hours of discovery. Sampling shall then occur once per week until the discharge ceases. The facility shall submit test results, along with the number of days the storage basin(s) has discharged during the month, to the appropriate regional office or via the Electronic Discharge Monitoring Report (eDMR) Submission System by the 28<sup>th</sup> day of the month after the discharge ceases. Permittee shall monitor for the following constituents:

Constituent (Limit Set: EB)	Units	Sample Type
Flow	mgd	measured
Biochemical Oxygen Demand <sub>5</sub>	mg/L	grab
Total Suspended Solids	mg/L	grab
Total Ammonia Nitrogen	mg/L	grab
pH	Standard Units	grab
<i>E. coli</i> *	#/100 mL	grab

\* Sampling for *E. coli* is only required during the recreational months of April – October.

9. The permittee is required to record and maintain precipitation data as part of this permit. If the permittee fails to collect and record precipitation data, the department will rely upon data from the nearest reliable weather data collection station when determining compliance with this permit.

**SUBSURFACE DISPERSAL OPERATIONAL REQUIREMENTS**

1. Subsurface dispersion is authorized during snow covered conditions, but subsurface systems shall not operate when soil is frozen at the depth of dispersion.
2. Subsurface application rates shall be determined through the construction permit process, and shall not exceed the soil permeability and loading rate at the time of application. Subsurface application shall not cause surfacing of wastewater.
3. For subsurface systems, vegetation such as grasses or other non-food crops must be grown over the system.
  - (a) The only equipment allowed on the area with the subsurface system is equipment used to maintain the vegetation.
  - (b) Barriers may be required to protect the soil treatment area of the subsurface system.
  - (c) No livestock shall be allowed to use the area where the subsurface system is installed.
4. Records of maintenance for subsurface systems must be maintained for at least five (5) years. Examples include filter replacement, pumping (removal) of sludge from tanks, etc. These records shall be made available during inspection, or upon request to the department.
5. Participation in the department’s eDMR system is required for Form S reporting, as an attachment when reporting a limit set requirement or if no other limit sets are required, once Form S becomes available for online entry.
6. Subsurface dispersal systems are considered to be Class V wells if they have the capacity to serve twenty (20) or more people and shall comply with the reporting requirements of 40 CFR 144.26. For each active, new or modified Class V Well, submit a Class V Well Inventory Form to the Missouri Department of Natural Resources, Geological Survey Program, P. O. Box 250, Rolla, Missouri 65402. This form can be requested from the Geological Survey Program or can be found at the following website: <http://dnr.mo.gov/forms/780-1774-f.pdf>.

7. All subsurface dischargers must comply with 40 CFR 144.82, which prohibits the movement of fluids containing any contaminant into underground sources of drinking water (USDWs) during the construction, maintenance, conversion, and plugging or closure of injection wells.
8. Per 40 CFR 144.12(c) and 40 CFR 144.82(a)(2), if at any time the department learns that a Class V well may cause a violation of primary drinking water regulations under 40 CFR 142, the permittee shall complete one of the following actions upon instruction by the department:
  - (a) Obtain an individual site-specific permit;
  - (b) Take such actions as may be necessary to prevent the violation; or
  - (c) Comply with conditions imposed by the department during enforcement action.

**PUMP AND HAUL OPERATIONAL REQUIREMENTS**

<b>Table D PUMP AND HAUL SYSTEM LIMITATIONS AND MONITORING REQUIREMENTS</b>						
The permittee is authorized to store domestic wastewater for pump and haul as specified in the application for this permit. The storage and disposal of domestic wastewater shall be controlled, limited and monitored by the permittee as specified below:						
<b>Holding Tank Operational Monitoring (Note 1)</b>						
Limit Set: PH						
EFFLUENT PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MINIMUM		DAILY MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Volume Pumped	gallons			*	daily	total
Freeboard in Tank (Note 2)	feet	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT'S EDMR SYSTEM. SHOULD A WAIVER TO EDMR BE GRANTED BY THE DEPARTMENT, PAPER REPORTS SHALL BE SUBMITTED TO THE APPROPRIATE REGIONAL OFFICE. REPORTS ARE DUE <b>DATE 28, 20xx</b> FOR THE PREVIOUS MONTH. IT IS A VIOLATION OF THIS PERMIT TO FAIL TO REPORT AS REQUIRED.						

\* Monitoring requirement only. Monitor as required in this table and report the resulting value monthly.

Note 1 – If pumping did not occur during the report period, report as zero (0) gallons. By reporting zero gallons, the permittee is certifying that pumping did not occur.

Note 2 – Freeboard is the difference in elevation between the static liquid level and the level where accumulated liquid would discharge from the holding tank.

1. If the facility does not have an earthen storage basin, existing storage tanks possessing an effluent discharge port shall be permanently plugged at the tank within 30 days of the effective date of this permit.
2. At least one facility staff member familiar with the O&M manual shall be present on site when the facility is being pumped.
3. High-level alarms and associated telemetry equipment on wastewater storage structures shall be installed within 180 days of the effective date of this permit and must be maintained in good working order. High-level alarms shall be positioned in a location to allow adequate time for the operator of the facility to have the accumulated liquid removed before an unpermitted discharge would occur. The alarms and telemetry system shall be manually tested at least once per quarter.
4. Annual Operating Report: Records shall be maintained and summarized into an annual operating report, which shall be submitted by January 28th of each year for the previous calendar year period using report forms provided by or approved by the department. The summarized annual operating report is in addition to the reporting requirements listed in Table D. The summarized annual operating report shall include the following:
  - (a) Record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
  - (b) If illegal discharges from the holding tank/storage basin occurred during the year, provide how many days the discharges occurred, the discharge flows, the reasons discharges occurred; and cleanup activities related to the discharges;
  - (c) A summary of the operations including number of times pumped, dates pumped, and total volume pumped;
  - (d) Name, business address, and phone number of the contract hauler; and

- (e) Documentation that high-level alarms and telemetry system have been tested.

### **STANDARD CONDITIONS**

In addition to specified conditions stated herein, this permit is subject to the attached Standard Conditions Parts I and III, dated August 01, 2014 and March 1, 2015, respectively; and hereby incorporated as though fully set forth herein.

### **SPECIAL CONDITIONS**

1. This permit may be reopened and modified or alternatively revoked and reissued to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Section 301(b)(2)(C) and (D), 304(b)(2)(A) and (B), and 307(a)(2) of the CWA, if the effluent standard or limitation issued or approved:
    - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
    - (2) Controls any pollutant not limited in this permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a wasteload allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards (10 CSR 20-7.031).
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, an effluent limitation derived from a TMDL is developed for the receiving waters, which would then be included in a list of waters of the state not fully achieving Missouri Water Quality Standards.

The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

### **PERMIT RENEWAL**

Unless terminated, the permittee shall submit an application for the renewal of this permit by submitting *Form B – Application for Operating Permit for Domestic Wastewater* (Form MO-780-1512) <http://dnr.mo.gov/forms/780-1512-f.pdf> no later than thirty (30) days prior to the permit's expiration date. If a facility submits a timely and complete application in accordance with 10 CSR 20-6.010(5)(B), (5)(C), and (10)(E)1, as well as § 644.051.10, RSMo 2015, if the department is unable, through no fault of the permittee, to issue a renewal prior to expiration of the previous permit, the terms and conditions of the expired permit are administratively continued and will remain fully effective and enforceable until such time when a permit action is taken. Failure to submit a renewal application for a facility that is still in operation is a violation of the Missouri Clean Water Law.

As part of the complete application and as required by the federal NPDES eReporting rule, participation in the department's Electronic Discharge Monitoring Report Submission System (eDMR) will be required, as applicable. Facilities already participating in eDMR need not re-apply upon renewal. Facilities required to participate that are not yet active shall submit the eDMR Permit Holder and Certifier Registration form (Form MO-780-2204) at <http://dnr.mo.gov/forms/780-2204-f.pdf>, unless an alternative is available such as CROMERR services. If qualified, facilities may obtain a temporary or permanent electronic reporting waiver by submitting an eDMR Waiver Request Form (Form MO-780-2692): <http://dnr.mo.gov/forms/780-2692-f.pdf>. More information can be found at: <http://dnr.mo.gov/env/wpp/edmr.htm>.

Failure to apply for renewal of a permit may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

### **PERMIT TRANSFER**

This permit may not be transferred to a new owner in any fashion except by submitting an *Application for Transfer of Operating Permit* (Form MO-780-1517) <http://dnr.mo.gov/forms/780-1517-f.pdf> signed by the seller and buyer of the facility along with the appropriate modification fee. In some cases, revocation and reissuance may be necessary. Facilities with transfers carried out without proper notice to the department will be considered to be operating without a permit and may be assessed an administrative penalty.

### **PERMIT TERMINATION**

The permittee shall apply for permit termination when activities covered by this permit have ceased and no significant materials [as defined by 10 CSR 20-6.200(1)(C)27.] remain on the property or if on the property, are stored in such a way as to have no potential for pollution. Proper closure of any storage structure is required prior to permit termination. In order to terminate this permit, the permittee shall notify the department's appropriate regional office by completing and submitting *Form H – Request for Termination of a General Permit* (Form MO-780-1409) <http://dnr.mo.gov/forms/780-1409-f.pdf>. The regional office may require inspection of the premises prior to granting termination of a permit.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES  
FACT SHEET**

**MASTER GENERAL PERMIT FOR NO-DISCHARGE DOMESTIC WASTEWATER TREATMENT FACILITIES  
UNDER 50,000 GALLONS PER DAY DESIGN FLOW  
MO-G823000**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per 40 CFR Part 124.8(a) and 10 CSR 20-6.020(1)2., a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a:

Master General Permit

**Part I – Facility Information**

Facility Type: Non-POTW, wastewater irrigation, subsurface dispersal, storage and hauling of domestic wastewater  
Facility SIC Code(s): SIC 4952- Sewerage Systems, 6515- Residential Mobile Home Parks, 8641- Home Owners Associations and any other SIC code so long as the discharge is limited to the facility type listed in applicability.

**Facility Description:**

No-discharge domestic wastewater treatment facilities under 50,000 gallons per day of design flow. Separate general permits may be made available for discharging facilities. This permit does not apply to:

- (a) Municipal wastewater treatment facilities;
- (b) Any other facility required by the department to obtain the services of a certified operator per 10 CSR 20-9.020(2)(A);
- (c) Facilities which apply more than 24 inches of wastewater per year; or
- (d) Facilities with industrial wastewater contributions.

Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, restaurants, factories, institutions, etc. including food preparation areas. It does not include industrial process wastewater, industrial stormwater, or other non-domestic flows. Wastewater that would normally be considered as domestic wastewater but becomes commingled with industrial process wastewater is considered to be all process wastewater.

**CHANGES AND CLARIFICATION**

- Changes to this permit include the added requirement for electronic reporting per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule. Reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally-consistent set of data about the NPDES program. eDMR reporting has been added to this permit. All general covered permitted facilities under this master general permit shall comply with the department's requirements for electronic permitting if they have reporting requirements. Application to participate in the eDMR system is required as part of the application for general permit coverage in order to constitute a complete permit application. More information may be found at <http://dnr.mo.gov/env/wpp/edmr.htm> with the registration form at <http://dnr.mo.gov/forms/780-2204-f.pdf>. Facilities with only subsurface dispersal have no reporting requirements and thus have no need to apply for participation in the eDMR system. The facility may, under certain circumstances, apply for a temporary or permanent waiver from electronic reporting by submitting eDMR Waiver

Request form (Form 780-2692, <http://dnr.mo.gov/forms/780-2692-f.pdf>) to the appropriate permitting office. You may access the eDMR system using the following link: <https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx>.

- Other changes include the general restructuring of the permit to match current departmental templates and the use of the most up-to-date language available for use by the department.
- Provisions have been added to the permit to allow for Pump and Haul of domestic wastewater.
- Private facilities regulated by the Public Service Commission are now allowed coverage under this permit so long as they meet all requirements in 10 CSR 9.020.
- Some domestic wastewater treatment facilities have been excluded from this permit in order to avoid additional burden on the remaining facilities. For example, municipal facilities must sample influent and report removal efficiency (as well as several other conditions and requirements). Inclusion of municipal facilities would require all permittees to sample influent, at significant expense. Municipal facilities will continue to be covered by site-specific permits.
- Some water that may otherwise have been considered domestic wastewater can become regulated as industrial wastewater if it has become contaminated with industrial materials. For example, an employee shower facility, where dust from manufacturing laden with heavy metals is washed into the sewer system, will result in a wastewater that has a significant concentration of that heavy metal. This permit is protective of the environment with typical domestic wastewater, which includes the pollutants Biochemical Oxygen Demand, Total Suspended Solids, Ammonia, and small amounts of Oil & Grease. Domestic wastewater will contain traces of other pollutants, but not significant concentrations of other pollutants that are typical of industrial processes, such as chlorides, heavy metals, solvents, etc. These other pollutants, if present in significant concentrations, can cause harm to the soil or to groundwater.
- Outstanding National Resource Waters (ONRW) or Outstanding State Resource Waters (OSRW): At permit renewal, the department will examine monitoring reports submitted by a facility located within the watershed of an ONRW or an OSRW to determine if this permit is still appropriate for the facility. If degradation of water quality has occurred, the department may require the facility to apply for a site-specific permit

## **Part II – Receiving Stream Information**

### **APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. This permit applies to facilities discharging to the following water body categories:

- Missouri or Mississippi River [10 CSR 20-7.015(2)]
- Lakes or Reservoirs [10 CSR 20-7.015(3)]
- Losing Streams [10 CSR 20-7.015(4)]
- Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)]
- Special Streams [10 CSR 20-7.015(6)]
- Subsurface Waters [10 CSR 20-7.015(7)]
- All Other Waters [10 CSR 20-7.015(8)]

Missouri Water Quality Standards (10 CSR 20-7.031) defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1<sup>st</sup> classified receiving stream's beneficial water uses shall be maintained in accordance with 10 CSR 20-7.031(4). A general permit does not take into consideration site-specific conditions.

### **MIXING CONSIDERATIONS:**

This permit applies to receiving streams of varying low flow conditions. Therefore, the effluent limitations must be based on the smallest low flow streams considered, which includes waters without designated uses. As such, no mixing is allowed.

- Not Applicable: Mixing Zone [10 CSR 20-7.031(5)(A)4.B.(I)(a)]
- Not Applicable: Zone of Initial Dilution [10 CSR 20-7.031(5)(A)4.B.(I)(b)]



**RECEIVING STREAM(S):**

Not Applicable: Because this permit is for no-discharge systems, this permit is applicable to all settings except those excluded by the setback requirements.

**RECEIVING STREAM MONITORING REQUIREMENTS:**

Not Applicable: No receiving water monitoring requirements recommended at this time. Low rate wastewater irrigation and subsurface dispersal systems have no reasonable potential to impact waters of the state when properly conducted.

**Part III – Rationale and Derivation of Effluent Limitations & Permit Conditions**

**ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

As per 10 CSR 20-7.015(4)(A), discharges to losing streams shall be permitted only after other alternatives including wastewater irrigation, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

Not Applicable: The facility does not discharge to a Losing Stream as defined by 10 CSR 20-2.010(36) & 10 CSR 20-7.031(1)(N), or is an existing facility.

**ANTI-BACKSLIDING:**

A provision in the Federal Law and Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

The Department has determined that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).

- **General Criteria.** The previous permit contained a special condition which described a specific set of prohibitions related to general criteria found in 10 CSR 20-7.031(4). In order to comply with 40 CFR 122.44(d)(1), the permit writer has conducted reasonable potential determinations for each general criterion and established numeric effluent limitations where reasonable potential exists. While the removal of the previous permit special condition creates the appearance of backsliding, since this permit establishes numeric limitations where reasonable potential to cause or contribute to an excursion of the general criteria exists the permit maintains sufficient effluent limitations and monitoring requirements in order to protect water quality, this permit is equally protective as compared to the previous permit. Therefore, given this new information, and the fact that the previous permit special condition was not consistent with 40 CFR 122.44(d)(1), an error occurred in the establishment of the general criteria as a special condition of the previous permit. Please see Part IV – Monitoring and Reporting for more information regarding the reasonable potential determinations for each general criterion related to this facility.

**ANTIDegradation:**

Antidegradation policies ensure protection of water quality for a particular water body on a pollutant by pollutant basis to ensure Water Quality Standards are maintained to support beneficial uses such as fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as an Outstanding National Resource Water or Outstanding State Resource Water [10 CSR 20-7.031(3)(C)]. Antidegradation policies are adopted to minimize adverse effects on water. The facility must identify all Best Management Practices (BMPs) that are reasonable and effective, taking into account environmental impacts and costs. This permit covers no-discharge facilities. The prescriptive BMPs within the permit will serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

Not Applicable: Because this permit is for no-discharge wastewater irrigation systems, the only discharges allowed under this permit are short-term and intermittent and are expected to be non-degrading or minimally degrading. Compliance with the requirements of this permit meets the requirements of Missouri's Antidegradation Review [10 CSR 20-7.031(3), 10 CSR 20-7.031 Table A, and 10 CSR 20-7.015(9)(A)5].

**AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:**

As per 10 CSR 20-6.010(3)(B), an applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the department.

**BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

With prior approval from the department, permittees are authorized to land apply biosolids, or utilize other methods of sludge disposal contained in Standard Conditions Part III.

**SET-BACKS**

Set-backs are common elements of general permits, and are established to provide a margin of safety in order to protect the receiving stream from accidents, spills, unusual events, etc. They are also established to show what receiving streams the permit writer considered in drafting the permit. For this general permit, the setbacks are for the wastewater irrigation or subsurface dispersal area, and are designed to provide a margin of safety from sensitive features or to protect public health.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* are implemented to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

Not Applicable: At this time, the permittee is not required to develop and implement a SWPPP. There are no stormwater concerns associated with the facilities authorized by this permit.

**VARIANCE:**

As per the Missouri Clean Water Law §644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable: This operating permit is not drafted under premises of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per 10 CSR 20-2.010(78), the amount of pollutant each discharger is allowed by the department to release into a given stream after the department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable: Wasteload allocations were not calculated.

**WATER QUALITY STANDARDS:**

Per 10 CSR 20-7.031(3), General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the department to establish in each NPDES permit conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

Not Applicable: At this time, the permittee is not required to conduct WET test for this facility.

**40 CFR 122.41(M) – BYPASSES:**

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a treatment facility [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri’s Standard Conditions I, Section B, part 2. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

Not Applicable: This facility does not anticipate bypassing. It is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state

**OPERATOR CERTIFICATION REQUIREMENTS**

Per 10 CSR 9.020, requirements for operation by certified personnel shall apply to all wastewater treatment systems serving population equivalents greater than two hundred (200) or with fifty (50) or more service connections and owned or operated by private sewer companies regulated by the Public Service commission. Minimum certification requirements can be found at 10 CSR 9.020.

Per 10 CSR 20-6.010(8), facilities shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9.020(2) and any other applicable state law or regulation.

Applicable: Facilities regulated by the Public Service Commission shall comply with requirements for a certified operator as provided in 10 CSR 9.020.

Not Applicable: All other facilities not regulated by the Public service Commission are not required to have a certified operator.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation. Facilities with a wasteload allocation in a TMDL are required to obtain a site-specific permit.

Not Applicable: This is a no-discharge permit.

**Part IV – Monitoring and Reporting**

Monitoring is included to demonstrate the proper operation of the facility. Low-rate wastewater irrigation or subsurface dispersal does not have the potential to cause violations of water quality standards in surface or groundwater. However, daily visual inspection while in operation is required to assure that there are no malfunctions that would cause wastewater to be discharged to waters of the state.

**OPERATIONAL MONITORING**

Per 10 CSR 9.010, operational monitoring requirements shall apply to all wastewater treatment systems owned or operated by private sewer companies regulated by the Public Service Commission, servicing population equivalents greater than two hundred (200) or with twenty-five (25) or more service connections. Minimum monitoring requirements can be found at 10 CSR 9.010.

**WASTEWATER IRRIGATION**

Operational monitoring is necessary to demonstrate compliance with permit requirements.

**Application Rate:** Per 10 CSR 20-8.020(15)(F)6., hourly application rates shall not exceed one half (1/2) inch per hour. Surface application rates shall not exceed 1.0 inch per day, 3.0 inches per week, or 24 inches per year

**Application Area:** Monitoring requirement only. Area in acres is included to determine if proper irrigation is occurring on irrigation fields.

**Volume Irrigated:** Monitoring requirement only. The number of gallons of wastewater irrigated is included to determine if proper irrigation is occurring on irrigated fields. Wastewater shall be irrigated during suitable conditions so that there is no discharge from the storage basin, holding tanks, or irrigation site. The permittee is expected to take all necessary steps to ensure wastewater is applied in accordance with the requirements of this permit.

**Irrigation Period:** Monitoring requirement only. Monitoring of the irrigation period is included to determine if proper irrigation is occurring on the irrigation fields.

#### **STORAGE BASINS**

**Freeboard** is measured as a margin of safety expressed in number of feet the wastewater surface is below the emergency spillway. A proper amount of freeboard may compensate for unanticipated factors that would otherwise lead to an emergency bypass.

**Precipitation** monitoring is required to ensure appropriate irrigation is conducted to account for accumulated water in the storage basin.

#### **Sampling Type Justification:**

Due to the discharge being from irrigation from a storage basin, a grab sample is a representative and appropriate sample type. Variation in nutrient concentration is not expected over a 24 hour period. Sampling type has been determined to be appropriate so it has been retained from the previous state operating permit.

#### **GENERAL CRITERIA CONSIDERATIONS:**

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into the permit for those pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states that pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. In order to comply with this regulation, the permit writer will complete reasonable potential determinations on whether the discharge will violate any of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). It should also be noted that Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit states that it shall be unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri that is in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule or regulation promulgated by the commission.

- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses. This facility utilizes irrigation of domestic wastewater to the land surface and therefore does not discharge. No evidence of an excursion of this criterion has been observed by the Department in the past and the facility has not disclosed any other information their permit application which has the potential to cause or contribute to an excursion of this narrative criterion. Additionally, there had been no indication to the Department that the stream has had issued maintaining beneficial uses as a result of the wastewater irrigation. Therefore, based on the information reviewed during the drafting of this permit, and the fact that the facility does not discharge, no reasonable potential to cause or contribute to an excursion of this criterion exists.
- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses. Please see (a) above as justification is the same.
- (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses. Please see (a) above as justification is the same.
- (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life. Please see (a) above as justification is the same.
- (e) There shall be no significant human health hazard from incidental contact with the water. Please see (a) above as justification is the same.
- (f) There shall be no acute toxicity to livestock or wildlife watering. Please see (a) above as justification is the same.

- (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community. Please see (a) above as justification is the same.
- (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247. The discharge from this facility is made up of treated domestic wastewater. No evidence of an excursion of this criterion has been observed by the Department in the past and the facility has not disclosed any other information related to the characteristics of the discharge on their permit application which has the potential to cause or contribute to an excursion of this narrative criterion. Additionally, any solid wastes received or produced at this facility are wholly contained in appropriate storage facilities, are not discharged, and are disposed of offsite. This discharge is subject to Standard Conditions Part III, which contains requirements for the management and disposal of sludge to prevent its discharge. Therefore, this discharge does not have reasonable potential to cause or contribute to an excursion of this criterion.

#### **EMERGENCY BYPASS**

Emergency bypass monitoring is required daily when a facility has a bypass for the amount of flow, Biochemical Oxygen Demand<sub>5</sub>, Total Suspended Solids, Total Ammonia Nitrogen; *E. coli* and pH. These parameters shall be monitored daily for five consecutive days beginning within six (6) hours of discovery. Sampling shall then occur once per week until the discharge ceases. All samples shall be collected as grab samples. pH samples cannot be preserved and must be sampled in the field. Monitoring shall be reported using the eDMR system where applicable and results are due on the 28<sup>th</sup> day of the month after the cessation of the discharge.

Any unanticipated bypass may endanger public health or the environment. If a bypass occurs, the permittee shall report to the appropriate department regional office in accordance with 40 CFR 122.41 (m)(3) and Standard Conditions Part I as soon as possible but always within 24 hours of the bypass commencement. An emergency bypass may occur only when ambient rainfall exceeds the 10-year, 365-day rainfall event or the 25-year 24-hour rainfall event according to National Weather Service data. Design Storm Maps and Tables can be found at [http://ag3.agebb.missouri.edu/design\\_storm/](http://ag3.agebb.missouri.edu/design_storm/) or [http://hdsc.nws.noaa.gov/hdsc/pfds/pfds\\_map\\_cont.html?bkmrk=mo](http://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mo). Facilities are expected to make all reasonable attempts to return the water level in the basin to below the maximum capacity to halt or avoid a bypass.

#### **SUBSURFACE DISPERSAL**

No monitoring is required for Subsurface Dispersal Systems due to the nature of the system operation. Therefore, if the only part of this permit that applies to a facility is the subsurface dispersion, the facility is not required to register for eDMR

#### **PUMP AND HAUL**

For pump and haul facilities operational monitoring is required for volume pumped and amount of freeboard available in the holding tank(s). Wastewater hauling records may be requested upon inspection. This permit requires all holding tanks to have proper alarms, telemetry and freeboard monitoring to prevent overflow of holding tanks.



## **Part V – Administrative Requirements**

On the basis of preliminary staff review and the application of applicable standards and regulations, the department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

### **PUBLIC NOTICE:**

The department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

-The Public Notice period for this Master General Permit is anticipated to take place May 12, 2017 through June 12, 2017.

**DATE OF FACT SHEET:** MAY 10, 2017

**COMPLETED BY:**  
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