

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-0132578

Owner: LeRoy Martin  
Address: 4598 County Road 4620, West Plains, MO 65775

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Roadrunner RV Park Wastewater Treatment Facility  
Facility Address: 4598 County Road 4620, West Plains, MO 65775

Legal Description: See Page 2  
UTM Coordinates: See Page 2

Receiving Stream: See Page 2  
First Classified Stream and ID: See Page 2  
USGS Basin & Sub-watershed No.: See Page 2

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

**FACILITY DESCRIPTION**

SEE PAGE 2

This permit authorizes only wastewater discharges 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 644.051.6 of the Law.

July 20, 2012  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

July 19, 2012  
Expiration Date

John Madros, Director, Water Protection Program

**FACILITY DESCRIPTION** (continued)

**Outfall #001** – RV Park – SIC #7033 – **No Certified Operator Required**

Domestic Wastewater No-discharge System

Single cell storage basin / sludge is retained in basin.

Design population equivalent is 84.

Design flow is 7,584 gallons per day (1-in-10 year design including net rainfall minus evaporation).

Average design flow is 6,260 gallons per day (dry weather flows).

Design sludge production is 1.0 dry tons per year.

Legal Description: SE ¼, NW ¼, SE ¼, Sec. 26, T25N, R9W, Howell County  
UTM Coordinates: X=597972, Y=4074268  
Receiving Stream: Unnamed tributary to an unclassified sinkhole (U) Losing  
First Classified Stream and ID: Middle Fork (C) (02609) Losing  
USGS Basin & Sub-watershed No.: (11010011-0106)

**Receiving Stream Watershed:** a losing stream setting that flows into a sinkhole

**Facility Type:**

No-discharge Storage System for seasonal flows. Collected wastewater is pumped and hauled to another permitted wastewater treatment facility offsite.

**Design Basis:**

Design dry weather flows:  
Design with 1-in-10 year flows:  
Design PE: 84

**Avg Annual**

6260 gpd  
7584 gpd

**Storage Basin/Tank:**

Freeboard for basin: 0.5 feet  
Storage volume (minimum to maximum water levels): 992,807 gallons

**Storage Capacity (in Days):**

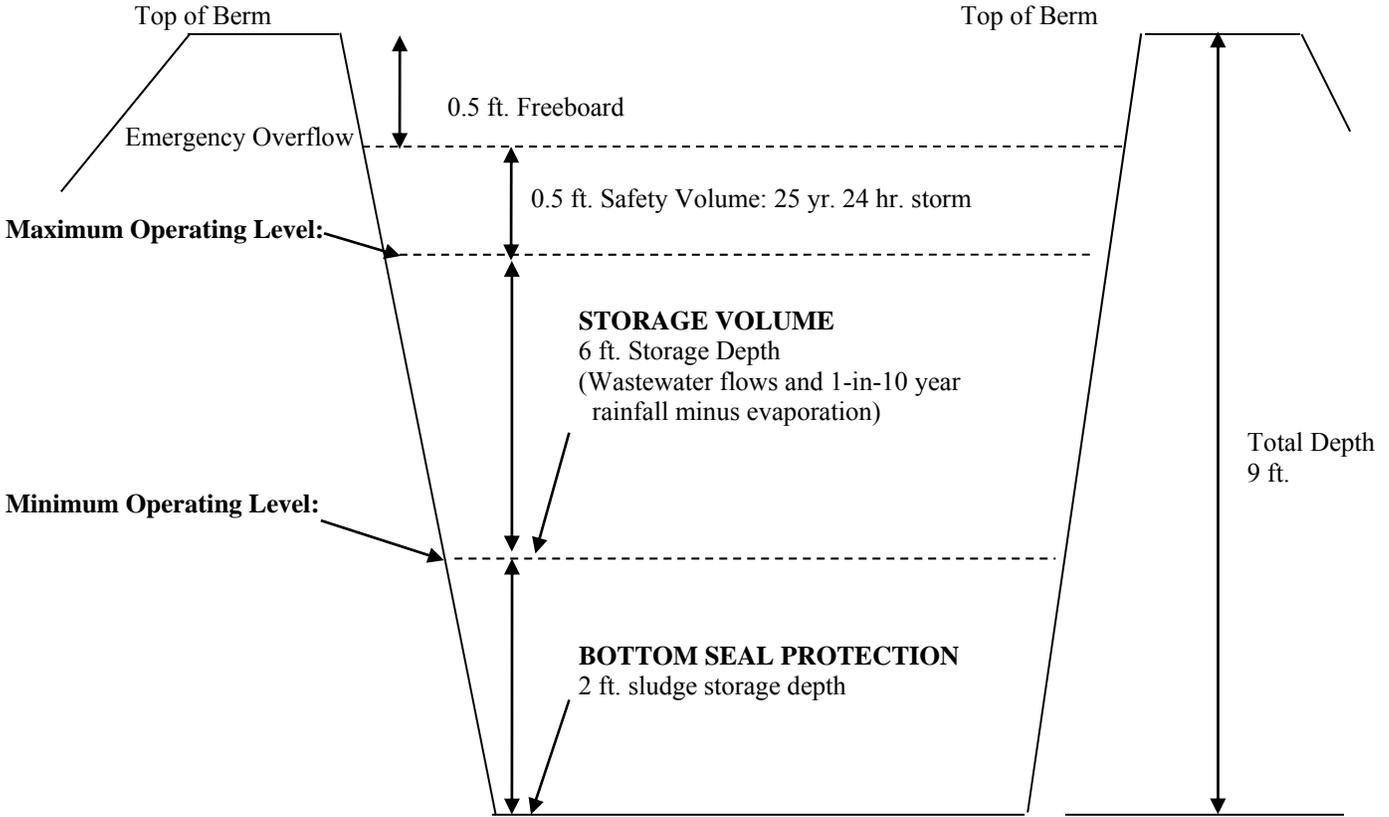
Design for Dry weather flows: 158 days  
Design with 1-in 10 year flows: 131 days

**Outfall #002** – Swimming Pool Discharge – SIC #7999

Discharges of filter backwash and pool drainage from swimming pool. Filter backwash discharges shall be infrequent and of low volume.

Legal Description: SW ¼, NW ¼, SE ¼, Sec. 26, T25N, R9W, Howell County  
UTM Coordinates: X=597701, Y=4074355  
Receiving Stream: Unnamed tributary to an unclassified sinkhole (U) Losing  
First Classified Stream and ID: Middle Fork (C) (02609) Losing  
USGS Basin & Sub-watershed No.: (11010011-0106)

STORAGE BASIN PROFILE



**Storage Basin Dimensions:**

	<b><u>Surface Area</u></b>	<b><u>Depth from Bottom</u></b>	<b><u>Pump down depth (from berm)</u></b>
Center Line Top Berm:	<u>1,840</u> sq. ft.	by <u>9</u> feet depth	
Inside Top Berm:	<u>1,080</u> sq. ft.	by <u>9</u> feet depth	
Emergency Spillway:	<u>1,062</u> sq. ft.	by <u>1.0</u> feet depth	
Freeboard (top berm to spillway)		by <u>1.0</u> feet depth	
Maximum operating level:	<u>27,953 sq. ft.</u>	<u>8.0</u> feet depth	<u>0.5</u> feet
Minimum operating level:		<u>2.0</u> feet depth	<u>6.5</u> feet
Aerobic BOD design basis:		<u>3.0</u> feet depth	

Storage volume (minimum to maximum water levels): 992,807 gallons

Berm top width: 5 feet      Berm runoff area (Centerline to 2 ft freeboard and safety volume): 3,982 sq. ft.

1-in-10 year annual storm water flows into storage basin (R-E): 64,622 cu. ft. (483,435 gallons)

<b>A. WASTEWATER LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 4 of 8	
					PERMIT NUMBER MO-0132578	
The permittee is authorized to conduct land application of wastewater as specified in the application for this permit. The final limitations shall become effective upon issuance and remain in effect until expiration of the permit. The land application of wastewater shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND IRRIGATED WASTEWATER PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001 – Storage Basin Operational Monitoring (Notes 1 and 2)</u>						
Basin Freeboard (Note 3)	feet	*			once/month	measured
Precipitation	inches	*			daily	total
Volume Hauled	gallons	*			daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2012</u> .						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

\* Monitoring requirement only.

Note 1 - **No-discharge facility requirements**. Wastewater shall be stored and hauled to another permitted wastewater treatment facility off site so that there is no-discharge from the storage basin. An emergency discharge may occur when excess wastewater has accumulated above feasible irrigation rates due to precipitation exceeding the 1-in-10-year, 365-day rainfall or the 25-year, 24-hour storm event.

Note 2 - 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 approved by the Department. The summarized annual report is in addition to the reporting requirements listed in Table A. The summarized annual report shall include the following:

- 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;
- The number of days the basin has discharged during the year, the discharge flow, the reasons discharge occurred and effluent analysis performed; and
- A list of the wastewater haulers used during the year and the number of days of wastewater hauling for each month, the total gallons hauled, and the monthly and annual precipitation received at the facility.

Note 3 - Basin freeboard shall be reported as the basin water level in feet below the overflow level. See Special Conditions for Wastewater Irrigation System requirements.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 8	
					PERMIT NUMBER MO-0132578	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<b>Outfall #002 - Filter Backwash and Pool Discharge (Note 7)</b>						
<u>Filter Backwash</u> (Note 4)						
Volume (Note 5)	Gallons	*		*	once/month	Estimate
Total Residual Chlorine (Note 8)	mg/L	0.019 (0.13ML)		0.01 (0.13ML)	once/month	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/month	grab
pH – Units	SU	**		**	once/month	grab
<u>Pool Drainage</u>						
Volume (Note 5)	Gallons	*		*	once/month	Estimate
Total Residual Chlorine (Note 8)	mg/L	0.019 (0.13ML)		0.01 (0.13ML)	once/month	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/month	grab
Dissolved Oxygen – Minimum (Note 6)	mg/L	5.0		5.0	once/month	grab
pH – Units	SU	**		**	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2012</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I &amp; III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* The pH is limited to the range of 6.5-9.0 pH units.

- Note 4 - If more than one discharge of filter backwash water occurs in a month, testing is required for only one discharge event. If no discharge occurs in a given month, report as “no-discharge” for that month.
- Note 5 - Estimate the volume as the total gallons of water that is released. The release rate shall be controlled to avoid high volumes of water being discarded into small streams that can cause stream channel erosion or can cause downstream flooding or property damage. If no discharge occurs in a given month, report as “no-discharge” for that month
- Note 6 - Dissolved Oxygen shall be sampled only if dechlorinating chemicals were used to lower the residual chlorine in the pool. Dechlorination can lead to a lowering of the dissolved oxygen concentration in the water that is discharged. Dissolved Oxygen must be maintained at or above 5.0 mg/L to protect aquatic life in the receiving stream. If necessary, use aeration to increase the Dissolved Oxygen in the discharge.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS** (continued)

- Note 7 - 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 approved by the Department. The annual report should include the following information: Source of the water for the pool; discharge monitoring parameters as listed in Section A, “Effluent Limitations and Monitoring Requirements”; a list of all chemicals other than chlorine compounds that are added to the pool for algae control or other purposes and the estimated quantities of such chemicals; and dates of operation of the pool.
- Note 8 - This permit contains a Total Residual Chlorine (TRC) limit.
- a. This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 0.13 mg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.13 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.13 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
  - b. Do not chemically dechlorinate **if it is not needed to meet the limits in your permit.**

**C. SPECIAL CONDITIONS**

1. **Emergency Discharge.** An emergency discharge from the storage basin may only occur if rainfall exceeds the 1 in 10 year (Data taken from the Missouri Climate Atlas) or the 24 hour, 25 year (Data taken from NRCS Urban Hydrology for Small Watersheds) rainfall events. **Discharge for any other reason shall constitute a permit violation and shall be reported in accordance with Standard Conditions, Part 1, Section B.2.b.** Monitoring shall take place once per day while discharging. Test results are due on the 28<sup>th</sup> day of the month after the cessation of the discharge. Permittee shall monitor for the following constituents:

Constituent	Units
Flow	MGD
Biochemical Oxygen Demand <sub>5</sub>	mg/L
Total Suspended Solids	mg/l
Total Ammonia Nitrogen	mg/L
pH – Units	SU
E.coli	#/100mL
Nitrate	mg/L

2. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B)1. or 2. within 90 days of notice of its availability. The permittee shall obtain department approval for closure or alternate use of the facility.
3. **Water Quality Standards**
  - a. Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
  - b. General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
    - (1) 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;
    - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
    - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
    - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
    - (5) There shall be no significant human health hazard from incidental contact with the water;
    - (6) There shall be no acute toxicity to livestock or wildlife watering;
    - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
    - (8) 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.

C. SPECIAL CONDITIONS (continued)

4. 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 Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
5. Earthen basins shall have a liner that is designed, constructed, and maintained. If operating records indicate excessive percolation, the department may require corrective action as necessary to eliminate excess leakage.
6. Wastewater Irrigation System.
  - (a) Discharge Reporting. Any unauthorized discharge from the storage basin shall be reported to the department as soon as possible but always within 24 hours. Discharge is allowed only as described in the Facility Description and Effluent Limitations sections of this permit.
  - (b) Storage Basin Operating Levels - No-discharge Systems. The minimum and maximum operating water levels for the storage basin shall be clearly marked. The basin shall be operated so that the maximum water elevation does not exceed 0.5 foot below the Emergency Spillway except due to exceedances of the 1-in-10 year, 365-day or 25-year, 24-hour storm events according to National Weather Service data. The storage basin shall be lowered to the minimum operating level prior to each winter by November 30.
  - (c) Emergency Spillway. The storage basin should 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. The department may waive the requirement for overflow structures on small existing basins.
  - (d) Operation and Maintenance Manual.

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 systems. Copies of the O&M Manual and subsequent revisions shall be submitted to Regional Office for review and approval. The O&M Manual shall be reviewed and updated at least every five years.
7. The permittee shall comply with any applicable requirements listed in 10 CSR 20-8 and 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the department for review and, if deemed necessary, approval.
8. Outfalls must be marked in field. The outfalls and land application fields shall be marked on the aerial or topographic site map submitted with the permit application.
9. 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.b.
10. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
11. The facility must be fenced sufficiently to restrict entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism. The fence shall be a minimum of five feet (5') in height. Fences shall be located far enough back from all treatment processes to permit easy access for operation and maintenance and for access of mowing equipment, sludge trucks and similar equipment.
12. A least one gate must be provided to access the storage basin system 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.

C. SPECIAL CONDITIONS (continued)

13. At least one (1) warning sign shall be placed on each side of the facility enclosure 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. A sign shall also be placed on each gate. Minimum wording shall be SEWAGE 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.
14. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.
15. The inner and outer berm slopes shall not be steeper than three to one (3:1). Inner berm slopes shall not be flatter than four to one (4:1). Consideration may be given to steeper inner slopes provided special attention is given to stabilizing the slope with rip-rap, concrete, or other rigid materials.
16. The berms of the storage basin shall be mowed and kept free of any deep-rooted vegetation, animal dens, or other potential sources of damage to the berms.
17. An all-weather access road shall be provided from a public right-of-way to the treatment facility. Sufficient room shall be provided at the site to permit turning vehicles around. Gravel roads to be used by heavy vehicles shall have a minimum depth of six inches (6") of crushed rock material with a bottom layer of four inches (4") of two to three inch (2–3") size material and a top layer two inches (2") thick of three-fourths inch (3/4") size material. In general, the grade of the access road shall not exceed twelve percent (12%).
18. The facility shall ensure that adequate provisions are provided to prevent surface water intrusion in to the storage basin and to divert stormwater runoff around the storage basin and protect embankments from erosion.

**Missouri Department of Natural Resources  
 FACT SHEET  
 FOR THE PURPOSE OF RENEWAL  
 OF  
 MO-0132578  
 ROADRUNNER RV PARK WWTF**

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 Minor

**Part I – Facility Information**

Facility Type: NON-POTW – No Discharge System / Swimming Pool Discharge  
 Facility SIC Code(s): 7033

**Facility Description:**

Single cell storage basin. Wastewater is pumped and hauled to another permitted wastewater treatment facility no onsite. The facility has a swimming pool that has filter backwashes and is pumped down for the winter season.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?  
 - No.

Application Date: 02/16/2012  
 Expiration Date: 07/19/2012  
 Last Inspection: 07/10/2009 In Compliance ; Non-Compliance

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (GPD)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
#001	7584	No Discharge	Domestic	~ 11
#002	NA	None	Filter Backwash and Pool Discharge	~ 11

Outfall #001  
 Legal Description: SE ¼, NW ¼, SE ¼, Sec. 26, T25N, R9W, Howell County  
 UTM Coordinates: X=597972, Y=4074268  
 Receiving Stream: Unnamed tributary to an unclassified sinkhole (U) Losing  
 First Classified Stream and ID: Middle Fork (C) (02609) Losing  
 USGS Basin & Sub-watershed No.: (11010011-0106)

Outfall #002

Legal Description: SW ¼, NW ¼, SE ¼, Sec. 26, T25N, R9W, Howell County  
 UTM Coordinates: X=597701, Y=4074355  
 Receiving Stream: Unnamed tributary to an unclassified sinkhole (U) Losing  
 First Classified Stream and ID: Middle Fork (C) (02609) Losing  
 USGS Basin & Sub-watershed No.: (11010011-0106)

Receiving Water Body’s Water Quality & Facility Performance History:

The drainage from the facility flows into a sinkhole. The sinkhole discharge is unknown to the permit writer; therefore the permit writer used the first downstream classified stream for the hydrologic unit that the facility is located in. The facility failed to submit the August, September, October, November and December 2007 Discharge monitoring Reports. No stream surveys have been conducted for the receiving stream.

Comments:

During a review of the facility, the permit writer discovered that the facility has a swimming pool that the permittee has discharges filter backwash waters and at the end of the season, the water in the pool is drained to a level to prevent freeze damage.

**Part II – Operator Certification Requirements**

Not Applicable ; This facility is not required to have a certified operator.

**Part III – Receiving Stream Information**

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

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Losing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department 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 to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC	EDU**
Unnamed tributary to an unclassified sinkhole	U	NA	General Criteria	11010011-0106	Ozark/Black/Current
Middle Fork	C	2609	LWW, AQL, WBC-B		

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).

\*\* - Ecological Drainage Unit

**RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:**

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed tributary to an unclassified sinkhole	0	0	0

**RECEIVING STREAM MONITORING REQUIREMENTS:**

No receiving water monitoring requirements recommended at this time.

**Part IV – 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 land application, 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 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.

- All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

**ANTIDegradation:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

**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://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

- Sludge/biosolids are stored in the basin.

**COMPLIANCE AND ENFORCEMENT:**

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable ; The permittee/facility is not currently under Water Protection Program enforcement action.

**PRETREATMENT PROGRAM:**

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Not Applicable ; The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

Not Applicable ; A RPA was not conducted for this facility.

**REMOVAL EFFICIENCY:**

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals.

Not Applicable ; Influent monitoring is not being required to determine percent removal.

**SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):**

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

- Not applicable. This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

**SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Not Applicable ; This permit does not contain a SOC.

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

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* 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.

Not Applicable ; At this time, the permittee is not required to develop and implement a SWPPP.

**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.

**WLA MODELING:**

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Not Applicable ; A WLA study was either not submitted or determined not applicable by Department staff.

**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 to include 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, which includes blending, 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.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

- Not Applicable, this facility does not bypass.

**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.

Not Applicable ; This facility does not discharge to a 303(d) listed stream.

**Part V – Effluent Limits Determination**

**Outfall #001 – Emergency Discharge**

There are no effluent limits associated with Outfall #001 for the no-discharge facility. However, the following is required for an emergency discharge.

**EMERGENCY DISCHARGE TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	9	*			NO	*
Biochemical Oxygen Demand <sub>5</sub>	mg/L	9	*			YES	45/45
Total Suspended Solids	mg/L	9	*			YES	45/45
Ammonia as N	mg/L	9	*			NO	*
pH	SU	9	*			YES	≥ 6
E.coli	**	9	*			YES	1000/400 Fecal
Nitrate	mg/L	9	*			NO	***
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

\* - Monitoring requirement only

\*\* - # of colonies/100mL; the Monthly Average for Fecal Coliform is a geometric mean.

\*\*\* - Parameter not previously established in previous state operating permit.

**Basis for Limitations Codes:**

- |  |                                    |
|--|------------------------------------|
| 1. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 3. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 4. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 11. WET test Policy                |
| 6. Dissolved Oxygen Policy               |                                    |

**OUTFALL #001 – DISCUSSION OF EMERGENCY DISCHARGE PARAMETERS:**

- **Flow.** As the facility is only allowed to have emergency discharges from the storage basin if rainfall exceeds the 1 in 10 year (Data taken from the Missouri Climate Atlas) or the 24 hour, 25 year (Data taken from NRCS Urban Hydrology for Small Watersheds) rainfall events, the facility is required to monitor the following parameters to ensure that water quality of the receiving stream is protected.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>).** Monitoring requirement only. The facility is required to monitor for Biochemical Oxygen Demand to determine loading to the receiving stream during emergency discharges.
- **Total Suspended Solids (TSS).** Monitoring requirement only. The facility is required to monitor for Total Suspended Solids to determine loading to the receiving stream during emergency discharges.
- **Total Ammonia Nitrogen.** Monitoring requirement only. The facility is required to monitor for Ammonia as N to determine loading to the receiving stream during emergency discharges.
- **pH.** Monitoring requirement only. The facility is required to monitor for pH to determine what impact the discharge will have on the receiving stream during emergency discharges.

- **Escherichia coli (E. coli)**. Monitoring requirement only. As the emergency discharge will flow to a sinkhole, the facility is required to monitor for E. coli. to determine what impact the discharge will have on the receiving stream during emergency discharges. This is for Groundwater Protection.
- **Nitrate**. Monitoring requirement only. As the emergency discharge will flow to a sinkhole, the facility is required to monitor for Nitrate. to determine loading to the receiving stream during emergency discharges. This is for Groundwater Protection.
- **Minimum Sampling and Reporting Frequency Requirements**.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/day while discharging	Test results are due on the 28 <sup>th</sup> day of the month after the cessation of the discharge
Biochemical Oxygen Demand <sub>5</sub>	once/day while discharging	
Total Suspended Solids	once/day while discharging	
Ammonia as N	once/day while discharging	
pH	once/day while discharging	
E.coli	once/day while discharging	
Nitrate	once/day while discharging	

**Outfall #001 – Storage Basin Operational Monitoring**

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Storage Basin Freeboard	feet	9	*			NO	*
Precipitation	hours	9	*			NO	*
Volume Hauled	gallons	9	*			NO	*
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

\* - Monitoring requirement only

Basis for Limitations Codes:

- |  |                                    |
|--|------------------------------------|
| 1. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 3. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 4. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 11. WET test Policy                |
| 6. Dissolved Oxygen Policy               |                                    |

**OUTFALL #001 – DISCUSSION OF STORAGE BASIN OPERATIONAL MONITORING PARAMETERS:**

- **Basin Freeboard.** Monitoring requirement only. The parameter has been retained from previous state operating permit.
- **Rainfall.** Monitoring requirement only. The parameter has been retained from previous state operating permit.
- **Volume Hauled.** Monitoring Requirement only. The parameter has been retained from previous state operating permit.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Basin Freeboard	once/month	once/quarter
Precipitation	once/day	once/quarter
Volume Hauled	once/day	once/quarter

**Outfall #002 – Filter Backwash and Pool Discharge**

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
<b>Filter Backwash</b>							
Volume	gallons	9	*		*	NO	***
Chlorine, Total Residual	mg/L	1	0.019		0.01	YES	***
Settleable Solids	mL/L/hr	1	1.5		1.0	YES	***
pH	SU	1	6.5 – 9		6.5 – 9	NO	***
<b>Pool Drainage</b>							
Volume	gallons	9	*		*	NO	***
Chlorine, Total Residual	mg/L	1/2	0.019		0.01	YES	***
Settleable Solids	mL/L/hr	1	1.5		1.0	NO	***
Dissolved Oxygen – Minimum	mg/L	1	5		5	NO	***
pH	SU	1	6.5 – 9		6.5 – 9	NO	***
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

\* - Monitoring requirement only

\*\* - # of colonies/100mL; the Monthly Average for Fecal Coliform is a geometric mean.

\*\*\* - Parameter not previously established in previous state operating permit.

Basis for Limitations Codes:

- |  |                                    |
|--|------------------------------------|
| 1. State or Federal Regulation/Law       | 7. Antidegradation Policy          |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 3. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 4. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 11. WET test Policy                |
| 6. Dissolved Oxygen Policy               |                                    |

**OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:**

**Filter Backwash**

- **Volume.** Monitoring requirement only.
- **Total Residual Chlorine (TRC).** 0.019 mg/L as a Daily Maximum and 0.010 mg/L as a Monthly Average. Please see 10 CSR 20-7.031, Table A]
- **Settleable Solids.** 1.5 mL/L/hr as a Daily Maximum and 1.0 mL/L/hr as a Monthly Average. The effluent limitations established for Settleable Solids is to make the limit consistent with limitations contained in the Master General Permit Template for Swimming Pool Filter Backwash and Pool Drainage.
- **pH.** Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.

**Pool Drainage**

- **Volume.** Monitoring requirement only.
- **Total Residual Chlorine (TRC).** 0.019 mg/L as a Daily Maximum and 0.010 mg/L as a Monthly Average. Please see 10 CSR 20-7.031, Table A]
- **Settleable Solids.** 1.5 mL/L/hr as a Daily Maximum and 1.0 mL/L/hr as a Monthly Average. The effluent limitations established for Settleable Solids is to make the limit consistent with limitations contained in the Master General Permit Template for Swimming Pool Filter Backwash and Pool Drainage.
- **Dissolved Oxygen.** 5.0 mg/L as a Daily Maximum and 5.0 mg/L as a Monthly Average. Please see 10 CSR 20-7.031, Table A]. The effluent limitations established for Settleable Solids is to make the limit consistent with limitations contained in the Master General Permit Template for Swimming Pool Filter Backwash and Pool Drainage.
- **pH.** Effluent limitation range is 6.5 to 9.0 Standard pH Units (SU), as per the applicable section of 10 CSR 20-7.015. pH is not to be averaged.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
<b>Filter Backwash</b>		
Volume	once/month	once/quarter
Chlorine, Total Residual	once/month	once/quarter
Settleable Solids	once/month	once/quarter
pH	once/month	once/quarter
<b>Pool Drainage</b>		
Volume	once/month	once/quarter
Chlorine, Total Residual	once/month	once/quarter
Settleable Solids	once/month	once/quarter
Dissolved Oxygen – Minimum	once/month	once/quarter
pH	once/month	once/quarter

**Part VI: Finding of Affordability**

Pursuant to Section 644.145, RSMo., the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

Not Applicable; The Department is not required to determine findings of affordability because the facility is not a **combined or separate sanitary sewer system for a publically-owned treatment works.**

## **Part VII – 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, then 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 operating permit is tentatively scheduled to begin in April 2012 or is in process.

- The Public Notice period for this operating permit was from (DATE) to (DATE). Responses to the Public Notice of this operating permit warrant the modification of effluent limits and/or the terms and conditions of this permit. (Please explain). (Also if applicable – Due to the major modifications of this permit, this operating permit is to be placed on Public Notice again, which is tentatively scheduled to begin on (DATE) or is in process.

- The Public Notice period for this operating permit was from (DATE) to (DATE). No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

**DATE OF FACT SHEET:** 3-13-12

### **COMPLETED BY:**

**BRANT FARRIS, ENVIRONMENTAL SPECIALIST III**  
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**PERMITTING AND ENGINEERING SECTION**  
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