

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-0117340

Owner: City Utilities of Springfield  
Address: PO Box 551, Springfield, MO 65801

Continuing Authority: Same as Above  
Address: Same as Above

Facility Name: McDaniel Lake Hypolimnetic Withdrawal System  
Facility Address: Farm Road 84, Springfield MO 65803

Legal Description: SE $\frac{1}{4}$ , NE $\frac{1}{4}$ , Sec. 26, T30N, R22W, Greene County  
UTMs: 472020 / 4127765

Receiving Stream: Little Sac River (P)  
First Classified Stream and ID: Little Sac River (P) (01381)  
USGS Basin & Sub-watershed No.: (10290106-050004)

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

### **FACILITY DESCRIPTION**

Outfall #001 – Public Water Supply Withdrawal / Sewerage Works - SIC #4941 / 4952

Step aeration.

Upstream monitoring is required only when discharge from Outfall #001 is occurring.  
NE $\frac{1}{4}$ , SE $\frac{1}{4}$ , Sec. 26, T30N, R22W, Greene County (X = 472112 / Y = 4127583)

Down stream monitoring shall take place at the Highway 13 Bridge, above the confluence of the South Dry Sac and the Little Sac Rivers in SE $\frac{1}{4}$ , SW $\frac{1}{4}$ , Section 26, T30N, R22W, Greene County. (X = 471311 / Y = 4127291)

Design maximum daily flow is 5.6 million gallons per day.

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.

April 10, 2009                      July 23, 2010  
Effective Date                      (Revised)

  
Mark N. Templeton, Director Department of Natural Resources

April 09, 2014  
Expiration Date

  
Cynthia S. Davies, Regional Director, Southwest Regional Office

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

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PERMIT NUMBER MO-0117340

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until **March 31, 2012**. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	GPD	*		*	once/weekday**	24 hr. total
Total Suspended Solids	mg/L		45	30	once/weekday**	grab
pH – Units	SU	***		***	once/weekday**	grab
Temperature	°C	*(Note 1)		*(Note 1)	once/weekday **	grab
Dissolved Oxygen (Note 3)	mg/L	>5.0		>5.0	once/weekday**	grab
Total Phosphorus	mg/L	*		*	once/week/discharge**	grab
Ammonia as N	mg/L	2.0		2.0	once/week/discharge**	grab
Nitrate as N	mg/L	*		*	once/week/discharge**	grab
Aluminum	mg/L	*		*	once/week/discharge**	grab
Iron	mg/L	*		*	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE July 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Upstream Monitoring</u> (Note 2)						
Flow	cfs	*		*	once/week/**	instantaneous discharge estimate
Temperature	°C	*(Note 1)		*(Note 1)	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE July 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Downstream Monitoring</u> (Note 2)						
Flow	cfs	*		*	once/week/**	instantaneous discharge estimate
Temperature	°C	*		*	once/week/discharge**	grab
pH – Units	SU	*		*	once/week/discharge**	grab
Dissolved Oxygen	mg/L	*		*	once/week/discharge**	grab
Ammonia as N	mg/L	*		*	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE July 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

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

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PERMIT NUMBER MO-0117340

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 **April 01, 2012** 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
<u>Outfall #001</u>						
Flow	GPD	*		*	once/weekday**	24 hr. total
Total Suspended Solids	mg/L		45	30	once/weekday**	grab
pH – Units	SU	***		***	once/weekday**	grab
Temperature	°C	* (Note 1)		* (Note 1)	once/weekday **	grab
Dissolved Oxygen (Note 3)	mg/L	5.0		6.3	once/weekday**	grab
Total Phosphorus	mg/L	*		*	once/week/discharge**	grab
Ammonia as N	mg/L				once/week/discharge**	grab
{ April 1 – June 30 }		7.0		2.7		
{ July 1 – September 30 }		3.2		1.2		
{ October 1 – December 31 }		7.0		2.7		
{ January 1 – March 31 }		7.7		3.0		
Nitrate as N	mg/L	*		*	once/week/discharge**	grab
Aluminum	mg/L	*		*	once/week/discharge**	grab
Iron	mg/L	*		*	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE **May 28, 2012**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Upstream Monitoring</u> (Note 2)						
Flow	cfs	*		*	once/week/**	instantaneous estimate
Temperature	°C	* (Note 1)		* (Note 1)	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE **May 28, 2012**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Downstream Monitoring</u> (Note 2)						
Flow	cfs	*		*	once/week/**	instantaneous estimate
Temperature	°C	*		*	once/week/discharge**	grab
pH – Units	SU	*		*	once/week/discharge**	grab
Dissolved Oxygen	mg/L	*		*	once/week/discharge**	grab
Ammonia as N	mg/L	*		*	once/week/discharge**	grab

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE **May 28, 2012**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I, & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Sample once per month. Reports shall be submitted by the 28<sup>th</sup> day of the month following the reporting period, e.g. Reporting period is the month of March (sample collected in March), report due by April 28<sup>th</sup>.
- \*\*\* pH is measured in pH units and is not to be averaged. The pH for all facilities except lagoons is limited to the range of 6.5-9.0 pH units.

Note 1 – The effluent shall not cause more than a 5 degree increase in the stream temperature.

Note 2 – Stream Monitoring is required only when discharge from Outfall #001 is occurring.

Note 3 - The Dissolved Oxygen limits are the minimums. The facility shall not go below the set limits.

C. 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 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.

2. All outfalls must be clearly marked in the field.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
  - (1) One hundred micrograms per liter (100 µg/L);
  - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
  - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
  - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. 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.

D. SCHEDULE OF COMPLIANCE

- 1. By **March 31, 2010** submit a completed application for construction permit, application fee, and one copy each of an engineering report, plans and specifications prepared by a professional engineer registered in the State of Missouri to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807, for providing wastewater treatment improvements to comply with the final effluent limitations as listed in Part A of this permit, designed in accordance with Missouri Clean Water Law Regulation 10 CSR 20 Chapter 8.
- 2. Within fifteen (15) calendar days of receipt of any request for additional information or changes in the engineering report, plans or specifications, respond and if necessary submit engineering modifications to the department.
- 3. Within 365 calendar days of issuance of the construction permit, construct the permitted wastewater treatment improvements.
- 4. Within fifteen (15) calendar days of completion of construction of wastewater treatment improvements, submit a Statement of Work Completed form, signed, sealed, and dated by a professional engineer registered in the State of Missouri certifying that the project has been completed substantially in accordance with the approved plans and specifications. In addition to the Statement of Work Completed, submit an application for a Missouri State Operating Permit modification complete with the appropriate modification fee to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807.
- 5. Annual progress reports shall be submitted on January 28<sup>th</sup> of each year until the construction completed. The report shall include what step of the process the facility is at, how much construction has been completed, approximately time of completion, etc. The first report is due **January 28, 2010**.
- 6. If a construction permit is not needed please inform the department by **March 31, 2010** how you are planning to meet the new effluent limits.

If you have questions you may contact the Missouri Department of Natural Resources, Southwest Regional Office by calling 417-891-4300 or by mail at 2040 West Woodland, Springfield, Missouri, 65807.

**Missouri Department of Natural Resources**  
**Statement of Basis**  
**McDaniel Lake Hypolimnetic Withdrawal System**  
**NPDES #: MO-0117340**  
**Greene County**

This Statement of Basis (Statement) gives pertinent information regarding minor/simple modification(s) to the above listed operating permit without the need for a public comment process.

A Statement is not an enforceable part of a Missouri State Operating Permit.

**FACILITY DESCRIPTION**

Outfall #001 – Public Water Supply Withdrawal / Sewerage Works - SIC #4941 / 4952

Step aeration.

Upstream monitoring is required only when discharge from Outfall #001 is occurring.  
SE¼, NE¼, Sec. 26, T30N, R22W, Greene County

Down stream monitoring shall take place at the Highway 13 Bridge, above the confluence of the South Dry Sac and the Little Sac Rivers in SE¼, SW¼, Section 26, T30N, R22W, Greene County.

Design maximum daily flow is 5.6 million gallons per day.

**MODIFICATION RATIONALE**

This operating permit is hereby modified to correct Table A Final limits on page three (3) of the permit. The months for the new ammonia limits were not listed. No other changes were made. The months were corrected to better correlate with the quarterly reporting. The pH for stream monitoring was changed to monitoring to reflect the previous permit limits.