

April 11, 2008

Ms. Julie M. Bierlein, Secretary/Treasurer
Four Country Bees, Inc.
178 Arlie Barr Rd.
Viburnum, MO 65566

RE: Missouri State Operating Permit # MO-0089613 Modification

Dear Ms. Bierlein:

The department has reviewed your *Application for Transfer of Operating Permit*. Missouri State Operating Permit (MSOP) # MO-0089613, originally issued May 25, 2007, is hereby modified. Subject modification changes are as follows:

Former Owner: Mr. Sherman West, 178 Arlie Barr Rd., Viburnum, MO 65566
Former Facility Name: Holiday Lake Campground WWTF

New Owner: Four Country Bees, Inc., 178 Arlie Barr Rd., Viburnum, MO 65566
New Facility Name: Holiday Lake RV Park WWTF

Pursuant to the Federal Water Pollution Control Act, under authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, the department has issued, and you will find enclosed, the modified MSOP for Holiday Lake RV Park Wastewater Treatment Facility, Viburnum, Crawford County.

Please read enclosed MSOP and attached Standard Conditions. Each contains important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements. Discharge monitoring reports that may be required by the special conditions must be submitted on a periodic basis. Enclosed you will find copies of necessary report forms and these should be submitted to the department's Southeast Regional Office, 2155 N. Westwood Blvd., Poplar Bluff, MO 63901. Please contact the department's Southeast Regional Office for additional forms via telephone at (573) 840-9750.

Enclosed MSOP is both your federal discharge permit and your new modified state operating permit, and replaces all previous state operating permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your MSOP number as shown on page one of your MSOP.

As the result of changing regulations and department policy, the following changes to this MSOP were implemented upon renewal of the operating permit on May 25, 2007:

1. Ammonia Limit and Temperature Monitoring:

As of August 9, 2007, the department implemented policy to address discharges of Ammonia, a toxic substance, from wastewater treatment facilities. Since the receiving stream your wastewater treatment facility discharges to is classified, this MSOP contains interim and final effluent monitoring requirements for Ammonia and Temperature, and that data will be used to determine the applicable Ammonia effluent limit in your next operating permit at the next renewal.

2. Disinfection Requirements:

As of January 1, 2006, applicable wastewater treatment facilities are required to disinfect their effluent in order to protect the use of whole body contact in the receiving streams. Your wastewater treatment facility discharges to a stream designated in the Missouri Clean Water Commission regulations for whole body contact recreation and aquatic life protection. This stream designation requires disinfection equipment installation on your wastewater treatment system to ensure compliance with the fecal coliform final effluent limitation. Final effluent limitations for this MSOP permit include effluent limitations for fecal coliform for aquatic life protection, and for total residual chlorine for aquatic life protection in case permittee chooses chlorination as its disinfection method. In order to meet these tighter limits, the department requires an upgrade to your wastewater treatment system be accomplished. The most common methods of accomplishing disinfection of the wastewater are by installing chlorination and dechlorination facilities or constructing an ultraviolet (UV) disinfection system. The department recognizes that this required upgrade will take time and asks that you review the schedule of compliance in your MSOP to address the department required upgrades:

SCHEDULE OF COMPLIANCE

The final daily maximum and monthly average Fecal Coliform limits of 1000/100 mL and 400/100 mL, respectively, shall become effective within three (3) years of the issuance date of this permit in accordance with the conditions below, or December 31, 2013, whichever comes first.

1. Within nine (9) months from the operating permit issuance date, on or before February 25, 2008, permittee shall submit a preliminary engineering report prepared by a licensed professional engineer registered in the State of Missouri. Said preliminary engineering report shall make recommendations to upgrade the wastewater treatment facility to include chlorination and dechlorination equipment or alternate disinfection equipment such as ultraviolet (UV) disinfection. (If facility utilizes disinfection by chlorine, facility will be required to dechlorinate the effluent.)
2. Within 18 months from the operating permit issuance date, on or before November 25, 2008, and after department approval of the submitted preliminary engineering report, permittee shall submit a construction permit application. Said application shall include applicable filing fees, a construction activity schedule, and plans and specifications in accordance with the department approved preliminary engineering report.

3. Facility shall submit an interim progress report within two (2) years of the operating permit issuance date, on or before May 25, 2009.
4. Upon construction completion, permittee shall submit a letter of authorization or statement of work complete signed by the owner and a licensed professional engineer registered in the State of Missouri.
5. If permittee fails to meet any of the interim dates above, permittee shall notify the department in writing of the reason for non-compliance no later than 14 days following each interim date.

As an alternative to the department required disinfection requirement, you may want to explore the possibility of reduced regulatory requirements by conducting a Use Attainability Analysis (UAA) or establishing a Water Quality Based Effluent Limits (WQBEL) for your wastewater treatment facility. For more information concerning UAAs or establishing WQBELs, please contact the department's Water Protection Program at (573) 751-1300.

For the department to consider a UAA, the classified stream in question must have the whole body contact use removed and the UAA must have been accepted by department and acted upon by the Missouri Clean Water Commission within 18 months from the operating permit issuance date, on or before November 25, 2008. Documentation of such action may be substituted for plans and specifications as mentioned in the schedule of compliance item 2 above. If the classified stream use for whole body contact is retained, the above schedule of compliance shall still apply.

You will be contacted by a member of our department's Southeast Regional Office's Rolla Satellite Office staff within 45 days to schedule an Environmental Assistance Visit (EAV). During this EAV, staff will review your MSOP requirements with you and answer any questions. If you would like to schedule an earlier EAV or if you have any questions concerning this MSOP, please contact Mr. Bruce D. Volner at (573) 368-3625 in the department's Southeast Regional Office's Rolla Satellite Office, PO Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

Sincerely,

SOUTHEAST REGIONAL OFFICE

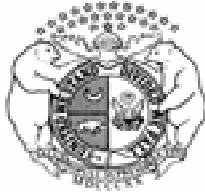
Gary L. Gaines, P.E.
Regional Director

GLG:bdv:kv

Enclosures

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, 92nd Congress) as amended,

Permit Number: **MO-0089613**

Owner: Four Country Bees, Inc.
Owner's Address: 178 Arlie Barr Rd., Viburnum, MO 65566

Continuing Authority: Same as above
Continuing Authority's Address: Same as above

Facility Name: Holiday Lake RV Park WWTF
Facility Address: 178 Arlie Barr Rd., Viburnum, MO 65566

Legal Description: NE ¼, NE ¼, Sec. 10, T35N, R2W, Crawford County
Latitude/Longitude: (+3746006/-09107534)

Receiving Stream: Shoal Creek (C) (01935)
First Classified Stream and ID: Shoal Creek (C) (01935)
USGS Basin & Sub-watershed No.: (07140102-030004)

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 – Campground – SIC # 4952 / SIC # 7003

Three (3) cell lagoon / No chlorination disinfection / Sludge retained in lagoon

Design population equivalent (PE): 141

Design flow: 9,000 gallons per day. Adjusted design flow: 4,999 gallons per day. Actual flow: 900 gallons per day.

Design sludge production: 2.1 dry tons/year. Actual sludge production: 0.2 dry tons/year.

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.

May 25, 2007
Effective Date

April 11, 2008
Modification Date

A handwritten signature in black ink, appearing to read "Doyle Childers".

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 24, 2012
Expiration Date

Gary L. Gaines, P.E., Director, Southeast Regional Office

					PAGE NUMBER 2 of 5	
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PERMIT NUMBER MO-0089613	
Permittee authorized to discharge from outfall(s) with serial number(s) as specified in the application for this operating permit. Interim effluent limitations shall become effective upon the issuance date of the operating permit and remain in effect for three (3) years. Such discharges shall be controlled, limited and monitored by 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	MGD	*		*	Once/month	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		65	45	Once/month	grab
Total Suspended Solids	mg/L		120	80	Once/month	grab
pH – Units	SU	**		**	Once/month	grab
Ammonia as N (May 1 – Oct 31)	mg/L	*		*	Once/month	grab
Ammonia as N (Nov 1 – Apr 30)	mg/L	*		*	Once/month	grab
Temperature	°C	*		*	Once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>Monthly</u> ; THE FIRST REPORT IS DUE <u>July 28, 2007</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
Permittee authorized to discharge from outfall(s) with serial number(s) as specified in the application for this operating permit. Final effluent limitations (below) shall become effective three (3) years from the issuance date of this operating permit and shall remain in effect until the expiration date of the operating permit. Such discharges shall be controlled, limited and monitored by 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	MGD	*		*	Once/month	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		65	45	Once/month	grab
Total Suspended Solids	mg/L		120	80	Once/month	grab
pH – Units	SU	**		**	Once/month	grab
Ammonia as N (May 1 – Oct 31)	mg/L	*		*	Once/month	grab
Ammonia as N (Nov 1 – Apr 30)	mg/L	*		*	Once/month	grab
Temperature	°C	*		*	Once/month	grab
Fecal Coliform (Note 1)	#/100 mL	1000		400	Once/month	grab
Total Residual Chlorine (Note 2)	mg/L	0.019 (0.13 ML)		0.010 (0.13 ML)	Once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>Monthly</u> . THE FIRST REPORT IS DUE <u>July 28, 2010</u> . THERE SHALL BE <u>NO</u> 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 <u>Parts I & 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)

* Monitor and report

** pH is measured in pH standard units (SUs) and is not to be averaged. pH limited to the range of 6.0-9.0 pH SUs.

Note 1 – Final Effluent Limitation and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

Note 2 – This operating permit contains a Total Residual Chlorine (TRC) limit.

- (a) This effluent limitation is below the minimum quantification level (ML) of the most common and practical U.S. Environmental Protection Agency (EPA) approved CLTRC methods. The department has determined the current acceptable minimum quantification level (ML) for total residual chlorine (TRC) to be 0.13 mg/L when using the DPD Colorimetric Method #4500–CL G. from the Standard Methods for the Examination of Waters and Wastewater. 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 (ML) of 0.13 mg/L will be considered a operating permit violation and values less than the minimum quantification level (ML) of 0.13 mg/L will be considered to be in compliance with the permit effluent limitation. The minimum quantification level (ML) does not authorize the discharge of chlorine in excess of the operating permit effluent limitation.
- (b) Disinfection is required year-round unless this permit specifically states that “Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31” above. If this operating permit does not require disinfection during the non-recreational months, do not chlorinate in those months.
- (c) Do not chemically dechlorinate **if it is not needed to meet the permit effluent limitation.**
- (d) If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as “0 mg/L” TRC.

C. SPECIAL CONDITIONS

- 1. This operating 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.
- 3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.

C. SPECIAL CONDITIONS (continued)

4. Changes in Discharges of Toxic Substances

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 operating permit application;
 - (4) The level established in Part A of the operating 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.

6. General Criteria. The following 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:

- (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;
- (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (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;
- (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (e) There shall be no significant human health hazard from incidental contact with the water;
- (f) There shall be no acute toxicity to livestock or wildlife watering;
- (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (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.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

C. SPECIAL CONDITIONS (continued)

8. Permittee shall comply with any applicable requirements listed in 10 CSR 20-8 and 10 CSR 20-9, unless facility has received written notification that the department has approved a modification to the requirements. Monitoring frequencies contained in this permit shall not be construed by 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, permittee shall submit a written request to the department for review and, if deemed necessary, approval.

D. SCHEDULE OF COMPLIANCE

The final daily maximum and monthly average Fecal Coliform limits of 1000/100 mL and 400/100 mL, respectively, shall become effective within three (3) years of the issuance date of this permit in accordance with the conditions below, or December 31, 2013, whichever comes first.

1. Within nine (9) months from the operating permit issuance date, on or before February 25, 2008, permittee shall submit a preliminary engineering report prepared by a licensed professional engineer registered in the State of Missouri. Said preliminary engineering report shall make recommendations to upgrade the wastewater treatment facility to include chlorination and dechlorination equipment or alternate disinfection equipment such as ultraviolet (UV) disinfection. (If facility utilizes disinfection by chlorine, facility will be required to dechlorinate the effluent.)
2. Within 18 months from the operating permit issuance date, on or before November 25, 2008, and after department approval of the submitted preliminary engineering report, permittee shall submit a construction permit application. Said application shall include applicable filing fees, a construction activity schedule, and plans and specifications in accordance with the department approved preliminary engineering report.
3. Facility shall submit an interim progress report within two (2) years of the operating permit issuance date, on or before May 25, 2009.
4. Upon construction completion, permittee shall submit a letter of authorization or statement of work complete signed by the owner and a licensed professional engineer registered in the State of Missouri.
5. If permittee fails to meet any of the interim dates above, permittee shall notify the department in writing of the reason for non-compliance no later than 14 days following each interim date.

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF MODIFICATION OF
MISSOURI STATE OPERATING PERMIT # MO-0089613
HOLIDAY LAKE RV PARK
VIBURNUM, CRAWFORD COUNTY

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 an operating permit is obtained, a discharge not in compliance with all operating 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, development rationale 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 Major ☐, Minor ☐, Industrial Facility ☐; Variance ☐;
Master General Permit ☐; General Permit Covered Facility ☒; and/or permit with widespread public interest ☐.

Part I - Facility Information

Facility Type: NON-POTW (RV Park / Campground)

Facility SIC Code(s): 4952; 7003

Facility Description:	Three (3) cell lagoon /No chlorination disinfection / Sludge retained in lagoon
Outfall # 001	Design population equivalent (PE): 141
	Design flow: 9,000 gallons per day. Adjusted design flow: 4,999 gallons per day. Actual flow: 900 gallons per day.
	Design sludge production: 2.1 dry tons/year. Actual sludge production: 0.2 dry tons per year .

Application Date: March 13, 2008

Expiration Date: May 24, 2012

Last Inspection: February 16, 2007 In Compliance ☒; Non-Compliance ☐

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.01	Primary (lagoon)	Domestic Sewage	< 2 miles

Outfall # 001

Legal Description: NE ¼, NE ¼, Sec. 10, T35N, R2W, Crawford County

Latitude/Longitude: (+3746006/-09107534)

Receiving Stream: Shoal Creek (C) (01935)

First Classified Stream and ID: Shoal Creek (C) (01935)

USGS Basin & Sub-watershed No.: (07140102-030004)

Water Quality History: None to report

Comments: None

Part II – Operator Certification Requirements

As per [10 CSR 20-6.010(8), Terms and Conditions of a Permit], permittees 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. As per [10 CSR 20-9.010(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

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], waters of the state are divided into seven (7) categories listed below. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table below and further discussed in the Derivation and Discussion of Limits section below.

Missouri or Mississippi River [10 CSR 20-7.015(2)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Lake or Reservoir [10 CSR 20-7.015(3)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Losing [10 CSR 20-7.015(4)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Metropolitan No-Discharge [10 CSR 20-7.015(5)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Special Stream [10 CSR 20-7.015(6)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Subsurface Water [10 CSR 20-7.015(7)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
All Other Waters [10 CSR 20-7.015(8)]:	Yes <input checked="" type="checkbox"/> ; No <input type="checkbox"/>

In 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 first classified receiving stream's beneficial water uses to be maintained may be found 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*	8-DIGIT HUC	EDU**
Shoal Creek	C	01935	LWW; AQL; WBC (B)***	07140102	Huzzah Creek

* - Livestock & Wildlife Watering (LWW); Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL); Whole Body Contact Recreation (WBC)

** - Ecological Drainage Unit

*** - UAA has not been conducted

RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Shoal Creek (C) (01935)	< 0.1	< 0.1	< 1.0

RECEIVING STREAM MONITORING REQUIREMENTS: No receiving water monitoring requirements recommended at this time.

Part IV – Rationale and Derivation of Effluent Limitations, and 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 ☒; Facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)].

ANTI-BACKSLIDING: Provisions in Federal Regulations [CWA §303(d)(4); CWA §402(c); CFR §122.44(I)] require reissued permits to be as stringent as the previous permit with some exceptions.

☒ - All limits in this statement 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.

Not Applicable ☒; As per [10 CSR 20-7.031(2)(D)], the three (3) levels of protection provided by the antidegradation policy in subsections (A), (B) and (C) of this section shall be implemented according to procedures developed by the department. On April 20, 2007, the Missouri Clean Water Commission approved the *Missouri Antidegradation Rule and Implementation Procedure* (Antidegradation Rule), applicable to new or upgraded and/or expanded facilities. The department will implement the Antidegradation Rule upon promulgation tentatively scheduled for August 2008.

APPLICABLE PERMIT PARAMETERS: Effluent parameters contained in Factsheets and Missouri State Operating Permits are obtained from Technology Based Effluent Limit (TBEL), Missouri's Effluent Regulations [10 CSR 20-7.015], Missouri's Water Quality Standards [10 CSR 20-7.031], previous Missouri State Operating Permits, and from Operating Permit Applications.

BIO-SOLIDS, SLUDGE, & SEWAGE SLUDGE: Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e., fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residues generated during domestic sewage treatment 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 sewage sludge firing in a sewage sludge incinerator or grit and screening generated during domestic sewage preliminary treatment in a treatment works.

Not Applicable ☒; This condition not applicable to permittee for this specific facility.

COMPLIANCE AND ENFORCEMENT: Enforcement is the action taken by the department's 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 department's WPP is to resolve violations and return the entity to compliance.

Not Applicable ☒; Permittee/facility is not currently under the department's 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 ☒; At this time, permittee not required to implement and enforce a Pretreatment Program.

REASONABLE POTENTIAL ANALYSIS (RPA): Effluent limitations must control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above the Missouri Water Quality Standards.

Not Applicable ☒; A Reasonable Potential Analysis (RPA) was not conducted for this facility.

REMOVAL EFFICIENCY: Removal efficiency is a method by which federal regulations ("Clean Water Act") defines Secondary Treatment and Equivalent to Secondary Treatment applicable to Biochemical Oxygen Demand 5-day (BOD₅) and Total Suspended Solids (TSS) or Non-filterable Residues (NFRs) for Publicly Owned Treatment Works (POTWs). Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage: www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm

Not Applicable ☒; This wastewater treatment facility is not a POTW. Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSOs), AND INFLOW AND INFILTRATION (I&I): Collection systems are a critical element in the successful performance of the wastewater treatment process. Under certain conditions, poorly designed, built, managed, operated, and/or maintained systems can pose risks to public health, the environment, or both. Causes of SSOs include, but are not limited to, the following: high levels of I&I during wet weather; blockages; structural, mechanical or electrical failures; collapsed or broken sewer pipes; insufficient conveyance capacity; and vandalism. Effective and continuous management, operation and maintenance, as well as ensuring adequate capacity and rehabilitation when necessary, are critical to maintaining collection system capacity and performance while extending the life of the system.

Not Applicable ☒; Facility not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of the Missouri Clean Water Law and associated regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC): A schedule of remedial measures included in an operating 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.

Applicable ☒; Time given for effluent limitations of this operating permit listed under Interim Effluent Limitation and Final Effluent Limitations established in accordance with [10 CSR 20-7.031(10)].

STORM WATER POLLUTION PREVENTION PLAN (SWPPP): A plan to schedule activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. Plan may include, but is not limited to, treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Not Applicable ☒; At this time, permittee 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 Missouri Clean Water Commission in its order. The variance may be extended by affirmative action of the Missouri Clean Water 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 the total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable ☒; Wasteload allocations were not calculated.

WASTELOAD ALLOCATIONS (WLA) MODELING:

Not Applicable ☒; A Wasteload Allocation (WLA) study was not submitted or determined to be not applicable by department.

WHOLE EFFLUENT TOXICITY (WET) TEST: A Whole Effluent Toxicity (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, permittee is not required to conduct Whole Effluent Toxicity (WET) testing for this facility.

303(d) LIST AND 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 Total Maximum Daily Load (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 Total Maximum Daily Load (TMDL) calculation

Not Applicable ☒; Facility does not discharge to a 303(d) listed stream.

Part V – Effluent Limits Determination

OUTFALL # 001 – Main Facility Outfall

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
<u>INTERIM EFFLUENT LIMITATIONS</u>							
FLOW	MGD	1	*	N/A	*	NO	S
BOD ₅	MG/L	1	N/A	65	45	NO	S
TSS	MG/L	1	N/A	120	80	NO	S
pH (S.U.)	SU	1	6.0-9.0	N/A	6.0-9.0	NO	S
AMMONIA AS N (MAY 1 – OCT 31)	MG/L	2/3/5	*	N/A	*	YES	***
AMMONIA AS N (NOV 1 – APR 30)	MG/L	2/3/5	*	N/A	*	YES	***
TEMPERATURE (°C)	°C	1/8	*	N/A	*	YES	***
<u>FINAL EFFLUENT LIMITATIONS</u>							
FLOW	MGD	1	*	N/A	*	NO	S
BOD ₅	MG/L	1	N/A	65	45	NO	S
TSS	MG/L	1	N/A	120	80	NO	S
pH (S.U.)	SU	1	6.0-9.0	N/A	6.0-9.0	NO	S
TEMPERATURE (°C)	°C	1/8	*	N/A	*	YES	
AMMONIA AS N (MAY 1 – OCT 31)	MG/L	2/3/5	*	N/A	*	YES	***
AMMONIA AS N (NOV 1 – APR 30)	MG/L	2/3/5	*	N/A	*	YES	***
TEMPERATURE (°C)	°C	1/8	*	N/A	*	YES	***
FECAL COLIFORM	**	1/2	1000	N/A	400	YES	***
TOTAL RESIDUAL CHLORINE (MG/L)	MG/L	1/2	0.019 (0.13 ML)	N/A	0.010 (0.13 ML)	YES	***
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 operating permit

N/A – Not applicable

S – Same as previous 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 Judgement |
| 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:

- **Biochemical Oxygen Demand (BOD₅).** Effluent limitation has been retained from previous operating permit (equal to or less than 65 mg/L as a Weekly Average and 45 mg/L as a Monthly Average [10 CSR 20-7.015(8)(B)3.A.]. Please see **Part III – Receiving Stream Information, APPLICABLE DESIGNATION OF WATERS OF THE STATE** above.
- **Total Suspended Solids (TSS).** Effluent limitation has been retained from previous operating permit (equal to or less than 120 mg/L as a Weekly Average and 80 mg/L as a Monthly Average [10 CSR 20-7.015(8)(B)3.A.]. Please see **Part III – Receiving Stream Information, APPLICABLE DESIGNATION OF WATERS OF THE STATE** above.
- **pH.** Effluent limitation has been retained from previous operating permit. pH shall be maintained in the range from six to nine (6.0-9.0) standard units (SUs) [10 CSR 20-7.015(8)(B)2.]. Please see **Part III – Receiving Stream Information, APPLICABLE DESIGNATION OF WATERS OF THE STATE** above.
- **Total Ammonia Nitrogen.** Monitoring requirement [10 CSR 20-7.031(4)(B)7.].
- **Temperature.** Monitoring requirement. Ammonia toxicity varies by temperature [10 CSR 20-7.031(4)(B)7.].

- **Fecal Coliform.** Discharge shall not contain more than a monthly geometric mean of 400 colonies/100 mL and a daily maximum of 1000 colonies/100 mL during the recreational season (April 1 – October 31). Please see **Part III – Receiving Stream Information.** **APPLICABLE DESIGNATION OF WATERS OF THE STATE** above [10 CSR 20-7.015(8)(B)4.A.]. Future operating permit renewal will contain effluent limitations for E. coli, which will replace fecal coliform as the applicable bacteria criteria in Missouri’s water quality standards.
- **Total Residual Chlorine (TRC).** Total Residual Chlorine (TRC) effluent limits of 0.019 mg/L daily maximum, 0.010 mg/L monthly average are recommended if chlorine is used as a disinfectant. Standard compliance language for Total Residual Chlorine (TRC), including the minimum quantification level (ML), included in operating permit [10 CSR 20-7.031, Table A].
- **Minimum Sampling and Reporting Frequency Requirements.** Sampling and reporting frequency requirements have been retained from previous operating permit.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
<u>INTERIM EFFLUENT LIMITATIONS</u>	ONCE/MONTH	ONCE/MONTH
FLOW (MGD)	ONCE/MONTH	ONCE/MONTH
BOD ₅ (MG/L) (NOTE 1)	ONCE/MONTH	ONCE/MONTH
TSS (MG/L) (NOTE 1)	ONCE/MONTH	ONCE/MONTH
pH (SU) (NOTE 2)	ONCE/MONTH	ONCE/MONTH
AMMONIA AS N (MG/L) (MAY 1 – OCT 31)	ONCE/MONTH	ONCE/MONTH
AMMONIA AS N (MG/L) (NOV 1 – APR 30)	ONCE/MONTH	ONCE/MONTH
TEMPERATURE (°C)	ONCE/MONTH	ONCE/MONTH
<u>FINAL EFFLUENT LIMITATIONS</u>	ONCE/MONTH	ONCE/MONTH
FLOW (MGD)	ONCE/MONTH	ONCE/MONTH
BOD ₅ (MG/L)	ONCE/MONTH	ONCE/MONTH
TSS (MG/L)	ONCE/MONTH	ONCE/MONTH
pH (SU) (NOTE 1)	ONCE/MONTH	ONCE/MONTH
AMMONIA AS N (MG/L) (MAY 1 – OCT 31)	ONCE/MONTH	ONCE/MONTH
AMMONIA AS N (MG/L) (NOV 1 – APR 30)	ONCE/MONTH	ONCE/MONTH
TEMPERATURE (°C)	ONCE/MONTH	ONCE/MONTH
FECAL COLIFORM (NOTE 2)	ONCE/MONTH	ONCE/MONTH
TOTAL RESIDUAL CHLORINE (NOTE 3)	ONCE/MONTH	ONCE/MONTH

Note 1 – pH is measured in pH standard units (SUs) and is not to be averaged. pH limited to the range of 6.0-9.0 pH SUs.

Note 2 – Final Effluent Limitation and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.

Note 3 – This operating permit contains a Total Residual Chlorine (TRC) limit.

- This effluent limitation is below the minimum quantification level (ML) of the most common and practical U.S. Environmental Protection Agency (EPA) approved CLTRC methods. The department has determined the current acceptable minimum quantification level (ML) for total residual chlorine (TRC) to be 0.13 mg/L when using the DPD Colorimetric Method #4500–CL G. from the Standard Methods for the Examination of Waters and Wastewater. 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 (ML) of 0.13 mg/L will be considered a operating permit violation and values less than the minimum quantification level (ML) of 0.13 mg/L will be considered to be in compliance with the permit effluent limitation. The minimum quantification level (ML) does not authorize the discharge of chlorine in excess of the operating permit effluent limitation.
- Disinfection is required year-round unless this permit specifically states that “Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31” above. If this operating permit does not require disinfection during the non-recreational months, do not chlorinate in those months.
- Do not chemically dechlorinate **if it is not needed to meet the permit effluent limitation.**
- If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as “0 mg/L” TRC.

Part VI – Administrative Requirements

Based on preliminary department staff review and application of applicable standards and regulations, the department, as administrative agent for the Missouri Clean Water Commission, proposes to issue an operating permit subject to certain effluent limitations, schedules and special conditions contained herein or within the operating permit. Proposed determinations are tentative pending public comment.

PUBLIC NOTICE: As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a department approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

☒ - The Public Notice period for this operating permit was from April 6, 2007 to May 6, 2007. No public comment 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 operating permit.

Date of Factsheet: 04/03/08

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