



Jeremiah W. (Jay) Nixon, Governor

Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

August 16, 2013

Ms. Kathy Isaacs, District Clerk  
Stone County Sewer District #1  
118 Notch Lane, Suite C  
Branson West, MO 65737

Dear Permittee:

Missouri State Operating Permit MO-0125580 for Ballantrae Estates wastewater treatment facility issued on August 12, 2011 is hereby modified as per the enclosed. This modification is to include ultraviolet disinfection and remove Total Residual Chlorine limits. The enclosed permit is for your official record.

Please read your permit and enclosed Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

This permit is both your Federal Discharge Permit and your new State Operating Permit and replaces all previous State Operating Permits for this facility. In all future correspondence regarding this facility, please refer to your State Operating Permit number and facility name as shown on page one of the permit.

**Please be aware that nothing in this permit relieves the permittee of any other legal obligations or restrictions, such as other federal or state laws, court orders, or county or other local ordinances or restrictions.**

If you were adversely affected by this decision, you may be entitled to an appeal before the administrative hearing commission pursuant to 10 CSR 20-1.020 and Section 621.250, RSMo. To appeal, you must file a petition with the administrative hearing commission within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the administrative hearing commission. Any appeal shall be directed to: Administrative Hearing Commission, Truman Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, MO 65102, Phone: 573-751-2422, Fax: 573-751-5018, website: [www.oa.mo.gov/ahc](http://www.oa.mo.gov/ahc).



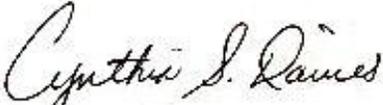
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Stone County Sewer District #1  
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If you have any questions concerning this permit please contact Mr. Sieu T. Dang, P.E., of my staff by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

A handwritten signature in cursive script that reads "Cynthia S. Davies".

Cynthia S. Davies  
Regional Director

CSD/sdk

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, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0125580

Owner: Stone County Sewer District #1  
Address: 118 Notch Lane, Suite C, Branson West, MO 65737

Continuing Authority: Same as Above  
Address: Same as Above

Facility Name: Ballantrae Estates WWTF  
Facility Address: 84 Wellington Ct, Branson MO 65616

Legal Description: NE<sup>1</sup>/<sub>4</sub>, SE<sup>1</sup>/<sub>4</sub>, Sec. 04, T22N, R22W, Stone County  
UTM (X/Y): 471508 / 4054322

Receiving Stream: Tributary to Table Rock Lake (U)  
First Classified Stream and ID: Table Rock Lake (L2) (07313) 303 (d)  
USGS Basin & Sub-watershed No.: (11010001-1404)

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 - Subdivision / Sewerage Works - SIC #4952

The use or operation of this facility does not require a CERTIFIED OPERATOR.

Extended aeration / chemical addition for phosphorus removal / tertiary filtration / ultraviolet disinfection / sludge is hauled

Design organic population equivalent is 60  
Design flow is 0.005920 MGD.  
Actual flow is 0.004000 MGD.  
Design sludge production is 1.07 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.

August 12, 2011      August 16, 2013  
Effective Date      (Revised)

Sara Parker Pauley, Director, Department of Natural Resources

August 11, 2016  
Expiration Date

Cynthia S. Davies, Regional Director, Southwest Regional Office

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 2 of 6

PERMIT NUMBER MO-0125580

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 **July 31, 2014**. 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	MGD	*		*	once/quarter**	24 hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L		30	20	once/quarter**	****
Total Suspended Solids	mg/L		30	20	once/quarter**	****
<i>E. coli</i> (Note 1)	#/100 ml		630	126	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
Total Phosphorous as P	mg/L	*		0.5	once/quarter**	grab
Aluminum, Total Recoverable (Note 2)	mg/L	*		*	once/quarter**	grab
Iron, Total Recoverable (Note 2)	mg/L	*		*	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Dissolved Oxygen	mg/L	*		*	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <b>QUARTERLY</b> ; THE FIRST REPORT IS DUE <b>JANUARY 28, 2014</b> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)					PAGE NUMBER 3 of 6	
					PERMIT NUMBER MO-0125580	
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 <b>August 1, 2014</b> 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	MGD	*		*	once/quarter**	24 hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L		30	20	once/quarter**	****
Total Suspended Solids	mg/L		30	20	once/quarter**	****
<i>E. coli</i> (Note 1)	#/100 ml		630	126	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Ammonia as N (April 1 – Sept 30) (Oct 1 – March 31)	mg/L	5.4 12.1		1.3 2.5	once/quarter**	grab
Total Phosphorous as P	mg/L	*		0.5	once/quarter**	grab
Aluminum, Total Recoverable (Note 2)	mg/L	*		*	once/quarter**	grab
Iron, Total Recoverable (Note 2)	mg/L	*		*	once/quarter**	grab
Oil & Grease	mg/L	15		10	once/quarter**	grab
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Dissolved Oxygen	mg/L	*		*	once/quarter**	grab
MONITORING REPORTS SHALL BE SUBMITTED <b>QUARTERLY</b> ; THE FIRST REPORT IS DUE <b>OCTOBER 28, 2014</b> . 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.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December, please note that monitoring reports shall be submitted no later than the 28th day of the month following the monitoring period (April 28th, July 28th, October 28th, and January 28th, respectively).
- \*\*\* 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.
- \*\*\*\* A composite sample made up from a minimum of four grab samples collected within a 24-hour period with a minimum of two hours between each grab sample. A person may physically collect the four grab samples or a composite sampler may be set up to collect the four grab samples.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 - Final limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean. Geometric mean for n samples =  $[a_1 \times a_2 \times a_3 \dots \times a_n]^{1/n}$ . The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday)

Note 2 - If no Aluminum or Iron was used in a given sampling period, an actual analysis is not necessary. Simply report as "0 mg/L".

<b>C. INFLUENT MONITORING REQUIREMENTS</b>			
The facility is required to meet a removal efficiency of 65/85% or more as a monthly average. The monitoring requirements shall become effective upon issuance and remain in effect until expiration of the permit. To determine removal efficiencies, the influent wastewater shall be monitored by the permittee as specified below:			
SAMPLING LOCATION AND PARAMETER(S)	UNITS	MONITORING REQUIREMENTS	
		MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Influent</u>			
Biochemical Oxygen Demand <sub>5</sub>	mg/L	once/quarter**	****
Total Suspended Solids	mg/L	once/quarter**	****
MONITORING REPORTS SHALL BE SUBMITTED <b><u>QUARTERLY</u></b> ; THE FIRST REPORT IS DUE <b><u>JANUARY 28, 2014</u></b>			

MO 780-0010 (8/91)

\*\* Sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December, please note that monitoring reports shall be submitted no later than the 28th day of the month following the monitoring period (April 28th, July 28th, October 28th, and January 28th, respectively).

\*\*\*\* A composite sample made up from a minimum of four grab samples collected within a 24-hour period with a minimum of two hours between each grab sample. A person may physically collect the four grab samples or a composite sampler may be set up to collect the four grab samples.

D. 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.
3. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

D. SPECIAL CONDITIONS (continued)

4. 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.

5. 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.

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

7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

8. The permittee shall comply with any applicable requirements listed in 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.

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. Bypasses are to be reported to the Southwest Regional Office Regional Office.

10. At least one sign shall appear on the fence on each side of each facility. Minimum wording shall be "SEWAGE TREATMENT FACILITY – KEEP OUT", in letters at least 2 inches high.

11. 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.

12. An all-weather access road shall be provided from a public right-of-way to the treatment facility.

E. SCHEDULE OF COMPLIANCE

1. If modifications to the facility are required to meet the final effluent limits for **Ammonia as N**, a construction permit is needed. By **December 16, 2012**, please submit a completed application for construction permit, application fee, one copy each of an engineering report, plans and specifications prepared by a professional engineer registered in the State of Missouri for changes to the wastewater treatment facility.
2. Please note that you may be able to meet the **Ammonia as N** final effluent limits without a construction permit. If the final effluent limits can be achieved without a construction permit please submit in writing by **December 16, 2012** how you are planning to meet the new effluent limits.
3. The entire project shall be completed by **August 1, 2014**.

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  
Ballantrae Estates WWTF  
MSOP #: MO-0125580  
Stone County**

A Statement of Basis (Statement) gives pertinent information regarding the applicable regulations and rationale for the development of the NPDES Missouri State Operating Permit (operating permit). This Statement includes Wasteload Allocations, Water Quality Based Effluent Limitations, and Reasonable Potential Analysis calculations as well as any other calculations that effect the effluent limitations of this operating permit. This Statement does not pertain to operating permits that include sewage sludge land application plans and variance procedures, and does not include the public comment process for this operating permit.

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

**Part I – Facility Information**

Facility Type: POTW  
Subdivision / SIC #4952

Facility Description:  
Extended aeration / chemical addition for phosphorus removal / tertiary filtration / ultraviolet disinfection / sludge is hauled.

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.009	Secondary	Domestic	~0.22

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

Multiple violations for Phosphorous limit exceedances.

Comments: This is for a modification to include ultraviolet light disinfection and remove the existing chlorination.

**Part II –Derivation and Discussion of Limits:**

**Total Residual Chlorine (TRC):** TRC limits were removed because facility will not use chlorine for disinfection.

**PART III: 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; This is modification after construction of construction permit CP0001221. The Department is not required to determine findings of affordability because the permit contains no new conditions or requirements that convey a new cost to the facility.

#### **Part IV – 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.

- The Public Notice period for this operating permit was from March 16, 2012 to April 15, 2012. No responses received.

**Date of Factsheet:** March 8, 2012; Revised August 7, 2013

Sieu T. Dang, P.E.,  
WP Permitting and Assistance Unit  
(417) 891-4300  
sieu.dang@dnr.mo.gov