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 No.	MO-0130923
Owner:	Curtis Bourgeois
Address:	P.O. Box 118, Rocheport MO 65279
Continuing Authority:	Bourgeois Family LLC
Address:	P.O. Box 118, Rocheport MO 65279
Facility Name:	Les Bourgeois Winery
Facility Address:	12847 West Highway BB, Rocheport MO 65279
Legal Description:	SE ¼, SE ¼, NE ¼, Sec. 7, T48N, R14W, Boone County
UTM Coordinates:	X=540473, Y=4313623
Receiving Stream:	Unnamed tributary to Bell Branch (U)
First Classified Stream and ID:	Moniteau Creek (P) (00754)
USGS Basin & Sub-watershed No.:	(10300102-070002)

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 – Winery – SIC #2084/4952 – Eliminated

Outfall #002 – Winery – SIC #2084/4952 – **No Certified Operator Required**
Septic tank / three-cell aerated lagoon / seasonal disinfection: chlorination - dechlorination / sludge is retained in lagoon
Design population equivalent is 35.
Design flow is 3,500 gallons per day.
Design sludge production is 0.63 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.

December 23, 2010
Effective Date

Kim A. Stetzler, Acting Director
Department of Natural Resources

December 22, 2015
Expiration Date

Irene Crawford
Regional Director, Northeast Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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
Outfall #002						
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$	mg/L		45	30	once/month	grab
Total Suspended Solids	mg/L		45	30	once/month	grab
pH – Units	SU	**		**	once/quarter***	grab
Ammonia as N	mg/L				once/quarter***	grab
(May 1 – Oct 31)		3.9		1.5		
(Nov 1 – April 30)		7.6		2.9		
Temperature	°C	*		*	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Total Residual Chlorine (Note 1)	mg/L	0.017 (0.13ML)		0.008 (0.13ML)	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE April 28, 2011 . 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.
** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5 - 9.0 pH units.
*** See table below for quarterly sampling.

Sample discharge at least once for the months of:		Report is due:
January, February, March	(1st Quarter)	April 28
April, May, June	(2nd Quarter)	July 28
July, August, September	(3rd Quarter)	October 28
October, November, December	(4th Quarter)	January 28

Note 1 - 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.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 1 - This permit contains a Total Residual Chlorine (TRC) limit. (continued)

(b) Disinfection is not required in this permit, therefore the disinfection equipment is not to be used until required by this permit.

(c) Do not chemically dechlorinate **if it is not needed to meet the limits in your permit.**

(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 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)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.

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.

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;

C. SPECIAL CONDITIONS (continued)

7. Water Quality Standards (continued)
   (3) 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;
   (4) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
   (5) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
   (6) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
   (7) There shall be no significant human health hazard from incidental contact with the water;
   (8) There shall be no acute toxicity to livestock or wildlife watering;
   (9) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
   (10) 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.

8. 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 from the lagoon. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

9. 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.

10. 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.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal. This permit authorizes only the activities described in this permit.

Missouri Department of Natural Resources
Statement of Basis
Les Bourgeois Winery
MO-0130923

A Statement of Basis (Statement) gives pertinent information regarding the applicable regulations and rational 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: IND - A winery, discharging process wastewater flows and a small amount of domestic flows.
Facility SIC Code(s): 2084 / 4952

Facility Description:
Approximately 350 gallons per day (gpd) of domestic wastewater from employees and visitors receives primary treatment in a 1,000-gallon septic tank. The winery process wastewater is screened to remove most solids. The two flows are then combined prior to entering the aerated lagoon system. The winery produces variable process flows throughout the year with a maximum loading of 3,500 gpd (and approximately 5,000 mg/L five-day Biochemical Oxygen Demand (BOD_5)) during the "Crushing" phase in August and September. The lagoon system consists of two aerated basins, with a baffle/curtain wall in the second basin to create a third lagoon cell that acts as a quiescent settling zone. The wastewater then goes through tablet chlorination and dechlorination units. The design flow for this system is 3,500 gpd.

This facility is being modified at this time. The existing lagoon is being closed, and the new facility is being constructed. The design flow of the previous facility was 3,850 gpd.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (GPD)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
#001	Deleted from the permit			
#002	3,500	Secondary	Industrial	~ 2.6

#002 UTM Coordinates: X=540473, Y=4313623

Receiving Water Body's Water Quality & Facility Performance History:
Since the initial operating permit was issued on December 10, 2004, the facility failed to submit discharge monitoring reports (DMRs) in 2005 and 2006. The submitted DMRs in 2007 reported no discharge for each quarter. The March 2008 report listed a BOD_5 of 288 mg/L and a Total Suspended Solids (TSS) of 91 mg/L. After another report of "no discharge" in June 2008, the facility reported a 45 mg/L for BOD_5 and 160 mg/L for TSS in September 2008. In December 2008, the BOD_5 was 495 mg/L and the TSS was 88 mg/L. The reported pH value in the December 2008 DMR was 5.6 standard units. No discharge was reported in March 2009. In June 2009, the BOD_5 was 28, while the TSS was 40 mg/L. No discharge was again reported in September 2009.

No Stream Surveys were found for this facility. No Low Flow Surveys were found for this facility.

Comments:
On April 16, 2004, a compliance inspection was conducted on the Les Bourgeois Gift Shop & Tasting Room Wastewater Treatment Facility. This inspection was in response to an environmental concern called into the Northeast Regional Office on January 30, 2004, by the Boone County Health Department. On June 14, 2004, Notice of Violation (NOV) #WP0047NE was issued for operating a water contaminant source without a Missouri State Operating Permit (MSOP). Prior to the Bourgeois family owning the facility, the lagoon was operated by at least two previous businesses: Pete's Café and 7 Gables Motel. There was no record of a previous permit for this lagoon.

A MSOP was issued on December 10, 2004, for the current single-cell lagoon. The design flow was listed as 3,850 gpd. The permit included a schedule of compliance (SOC) that required an engineering report to be submitted by April 1, 2005, and a construction permit application by June 1, 2005. These were submitted on August 30, 2006. In addition, the SOC required the permittee to complete construction and place the upgraded facility in operation by May 1, 2006. The facility is still not constructed.

At the time of the 2004 inspection, the Bourgeois family was already working with an engineering firm, planning a state-of-the-art wine-making facility with a restaurant and expanded gift shop. On December 6, 2004, a Water Quality Review Sheet (WQRS) was developed by the United States Environmental Protection Agency (EPA) for the department. On November 4, 2004, the Department's Geological Survey and Resource Assessment Division submitted geohydrologic evaluation reports for the site, identifying the stream as gaining and the collapse potential and overall limitations as slight. On January 5, 2007, a modified permit was put on Public Notice prior to construction permit #25-2699 being issued on March 28, 2007. On April 24, 2008, the construction permit was extended to March 27, 2009. The construction permit expired with the facility upgrades not constructed.

On February 23, 2009, an application for construction permit was submitted to the Department. The submittal was for the same design as permit #25-2699, since construction was not able to be completed as planned. The previous construction permit was submitted prior to the August 30, 2008, implementation of the new *Missouri Antidegradation Rule and Implementation Procedure*, therefore an antidegradation analysis was not required for the first construction permit. In addition, the proposed modification will not increase the flow or proposed discharge limits for the treated effluent, since the modification is for upgrade only. Therefore, no analysis is being required at this time.

On June 27, 2008, a Letter of Warning (LOW) was sent to The Bourgeois Family, LLC, for exceedances in BOD_5 and TSS in the first quarter of 2008. On January 7, 2009, a LOW was sent to the permittee for exceedances in BOD_5 and TSS in the third quarter of 2008. On May 7, 2009, Notice of Violation (NOV) #NER2009042709473522 was issued to the permittee for exceeding BOD_5, TSS, and pH during the forth quarter 2008. On October 8, 2009, a LOW was sent to the permittee for exceeding TSS during the second quarter 2009.

No Use Attainability Analysis surveys are recorded for the classified receiving stream.

The original continuing authority listed in this permit was the Bourgeois Family LLC, however the Boone County Regional Sewer District (BCSD) is the preferential continuing authority in the county. A letter is being sent to the permittee asking for a letter from the BCSD waiving their rights as the preferential continuing authority. The BCSD said they will discuss the matter at their November 17, 2009, Board of Trustees meeting.

Modification Rational:
This facility is being modified to close the existing, single-cell lagoon and construct a new facility consisting of a septic tank and two lagoon basins (the second basin being divided into two cells via a baffle curtain). The facility also is installing disinfection equipment consisting of two tablet feeder units for chlorination and dechlorination, which will be used in the future if disinfection is required.

Part IIA – Operator Certification Requirements

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittee's 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 IIB– Operational Monitoring

As per [10 CSR 20-9.010(4))], the facility is not required to conduct operational monitoring.

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 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.

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 1st 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*	8-DIGIT HUC	EDU**
Unnamed tributary to Bell Branch	U	N/A	General Criteria	10300102	Ozark / Moreau / Loutre
Moniteau Creek	P	00754	LWW, AQL, SCR, and WBC***		

* - 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
*** - UAA has not been conducted.

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)]. According to the latest available data, the receiving stream is classified as losing over 300 feet upstream of the facility's discharge. Therefore, this facility will not impact the losing segment.

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 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.

☒ - This modification does not propose to increase the design flow or discharged pollutants, therefore no further review is necessary.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(8)(A)10.], when a Continuing Authority under paragraph 10 CSR 20-6.010(3)(B)1. or 2. is expected to be available for connection within the next five (5) years, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (3)(B)1. or 2. facility, shall contain a certain special condition. This language is contained in Special Condition #3 of this operating permit.

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.

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_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals. 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), BYPASSES, INFLOW & INFILTRATION (I&I) – PREVENTION/REDUCTION:
Sanitary Sewer Systems (SSSs) are municipal wastewater collection systems that convey domestic, commercial, and industrial wastewater, and limited amounts of infiltrated groundwater and storm water (i.e. I&I), to a POTW. SSSs are not designed to collect large amounts of storm water runoff from precipitation events.

Untreated or partially treated discharges from SSSs are commonly referred to as SSOs. SSOs have a variety of causes including blockages, line breaks, sewer defects that allow excess storm water and ground water to overload the system, lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. A SSOs is defined as an untreated or partially treated sewage release from a SSS. SSOs can occur at any point in an SSS, during dry weather or wet weather. SSOs include overflows that reach waters of the state. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations. SSSs can back up into buildings, including private residences. When sewage backups are caused by problems in the publicly-owned portion of an SSS, they are considered SSOs.

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)* are required 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.

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.

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 – Outfall Deleted

Outfall #002 – Main Facility Outfall

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Biochemical Oxygen Demand$_5$	mg/L	1		45	30	NO	S
Total Suspended Solids	mg/L	1		45	30	NO	S
pH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	S
Temperature	ºC	1/5/9	*		*	YES	***
Ammonia as N (May 1 – Oct 31)	mg/L	2/3/5	3.9		1.5	YES	***
Ammonia as N (Nov 1 – Apr 30)	mg/L	2/3/5	7.6		2.9	YES	***
Oil & Grease	mg/L	1/9	15		10	YES	***
Chlorine, Total Residual	mg/L	1/2/3	0.017		0.008	YES	***
Escherichia coli	**	1/2	Please see Escherichia Coli (E. coli) in the Derivation and Discussion Section below.				
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only
** - # of colonies/100 mL
*** - Parameter not previously established in previous state operating permit.
N/A – Not applicable
S – Same as previous operating permit

Basis for Limitations Codes:

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

- **Flow**. In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Biochemical Oxygen Demand (BOD_5)**. 45 mg/L as a Weekly Average and 30 mg/L as a Monthly Average. Please see the Applicable Designation of Waters of the State sub-section of the Receiving Stream Information. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Total Suspended Solids (TSS)**. 45 mg/L as a Weekly Average and 30 mg/L as a Monthly Average. Please see the Applicable Designation of Waters of the State sub-section of the Receiving Stream Information. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **pH**. The pH is limited to the range of 6.5 - 9.0 pH units as per 10 CSR 20-7.031(4)(E). pH measurements are not to be averaged. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Temperature**. Monitoring requirement due to the toxicity of Ammonia varies by temperature. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Total Ammonia Nitrogen**. Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3]. Background total ammonia nitrogen = 0.01 mg/L. The Department used a modified Feed Forward Reaction decay formula to allow degradation of Ammonia prior to reaching the first classified water body. The time of travel was 0.132 days. During summer, the average monthly limit was 1.5 mg/L, while the maximum daily limit was 3.9 mg/L. During winter, the average monthly limit was 2.9 mg/L, while the maximum daily limit was 7.6 mg/L. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- ***Escherichia coli (E. coli)***. This facility may be required to have *E. coli* effluent limitations when Missouri adopts the implementation of the *E. coli* standards, as per [10 CSR 20-7.031(4)(C)]. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Total Residual Chlorine (TRC).** Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. Background TRC = 0.0 µg/L. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/quarter
Biochemical Oxygen Demand$_5$	once/month	once/quarter
Total Suspended Solids	once/month	once/quarter
pH	once/quarter	once/quarter
Temperature	once/quarter	once/quarter
Ammonia as N	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter
Chlorine, Total Residual	once/quarter	once/quarter

The facility has had several past violations of BOD_5 and TSS, therefore monitoring frequency is being increased to monthly for the current permit cycle. Upon the next reissuance of the permit, the frequency should be reexamined. Please see the Water Quality and Antidegradation Review (WQAR), dated September 9, 2009.

Part VI – 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.

Date of Statement of Basis: October 21, 2009
Date of Public Notice: October 23, 2009

Submitted by

Mr. Scott Adams, E.I.
Environmental Engineer
Northeast Regional Office
(660) 385-8000
scott.adams@dnr.mo.gov

Reviewed by

Mr. Philip R. Wilson, P.E.
Environmental Engineer
Northeast Regional Office
(660) 385-8000
philip.wilson@dnr.mo.gov

Scott Adams, E.I. Date

Philip R. Wilson, P.E. Date

Update as of December 22, 2010: An application to renew the Missouri State Operating Permit was submitted on May 18, 2009. An application to modify the permit post-construction was submitted on December 16, 2010. This permit was previously put on public notice on October 23, 2009, as stated above, prior to construction. The only changes made to the permit after public notice was changing the coordinates from latitude/longitude to GPS-obtained UTM-15, NAD83 coordinates and adding Special Condition #10, which is a clarification for bypasses.

Outfall #001 has been eliminated, though the old lagoon was still in existence at the time of issuance. Any discharge from Outfall #001 (the old lagoon) is considered a discharge from an unpermitted outfall.

STATE OF MISSOURI
Jeremiah W. (Jay) Nixon, Governor • Mark N. Templeton, Director
DEPARTMENT OF NATURAL RESOURCES
www.dnr.mo.gov

OCT 14 2009

Mr. Curtis Bourgeois
P.O. Box 118
Rocheport, Mo 65279

RE: Water Quality Review / Antidegradation Review Preliminary Determination on *Antidegradation Report for Les Bourgeois Winery Wastewater Treatment Facility.*

Dear Mr. Bourgeois:

Enclosed please find the finalized Water Quality and Antidegradation Review (WQAR) for the *Les Bourgeois Winery* Waste Water Treatment Facility (WWTF) in Boone County. The WQAR contains pertinent antidegradation review information based on the use of existing water quality, effluent limitations and monitoring requirements for the facility discharge. It was developed in accordance with 10 CSR 20-7.031, the Clean Water Commission approved *Missouri Antidegradation Rule and Implementation Procedure* (AIP) dated May 7, 2008, U.S. Environmental Protection Agency (US EPA) guidance, the applicant-supplied antidegradation review documentation, and the State of Missouri's effluent regulations (10 CSR 20-7.015). Please refer to the *General Assumptions of the Water Quality and Antidegradation Review* section of the enclosed WQAR. The WQAR is preliminary and subject to change as new information becomes available during future permit application processing.

Based on the Missouri Department of Natural Resource's (department's) initial review, preliminary determination is that the applicant-supplied antidegradation review documentation satisfies the requirements of the AIP. This WQAR/preliminary determination may be appealed within 30 days of this letter in accordance with the AIP Section II.F.4.

You may proceed with submittal of an application for an operating permit and antidegradation review public notice, an engineering report, or a complete application for a construction permit. The department will not be conducting any further review of this project until a submittal is received. These submittals must reflect the design flow, facility description, and general treatment components of this WQAR or this preliminary determination may have to be revisited.

Following the department's public notice of draft Missouri State Operating Permit including the antidegradation review findings and preliminary determination, the department will review any public notice comments received. If significant comments are made, the project may require another public notice and potentially another antidegradation review. If no comments are

received or comments are resolved without another public notice, these findings and determinations will be considered final.

Following issuance of the construction permit and completion of the actual facility construction, the department will proceed with the issuance of the operating permit.

If you should have questions regarding the enclosed WQAR, please contact Greg Brossier by telephone at (573) 751-2908 by e-mail at Greg.Brossier@dnr.mo.gov, or by mail at the Missouri Department of Natural Resources, Water Protection Program, PO Box 176, Jefferson City, Missouri 65102-0176.

Sincerely,

WATER PROTECTION PROGRAM

Robert K. Morrison, P.E., Chief
Water Pollution Control Branch

RKM:gbn

Enclosure

c: Dennis Sievers, Marshall Engineering
Lantz Tipton, Unit Chief, Northeast Regional Office
U.S. Environmental Protection Agency, Region VII

Missouri Department of Natural Resources
Water Protection Program
NPDES Permits and Engineering Section

Water Quality and Antidegradation Review (WQAR)

Determination of Effluent Limits and Monitoring Requirements

FACILITY INFORMATION

FACILITY NAME: Les Bourgeois Winery WWTF NPDES #: MO-0130923

FACILITY TYPE/DESCRIPTION: The design flow of the current lagoon is 3,850 gallons per day (GPD). The design flow for the expansion of the wine making process and proposed lagoon modification is 3,500 GPD. Therefore the design flow of the expansion will still be below the current permitted design flow.

EDU*: Ozark/Moreau/Loutre 8- DIGIT HUC: 10300102 COUNTY: Boone

* - Ecological Drainage Unit

LEGAL DESCRIPTION: SE¼, SE¼, NE¼, Sec 7, T48N, R14W LATITUDE/LONGITUDE: +3858114 / -9231575

WATER QUALITY HISTORY: There are multiple violations in the past 5 years for this facility. BOD_5 and TSS violations were severe.

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	RECEIVING WATERBODY	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	.006	Secondary	Unnamed trib to Bell Branch to Moniteau Creek	2.66

RECEIVING WATERBODY INFORMATION

WATERBODY NAME	CLASS	WBID	LOW-FLOW VALUES (CFS)			DESIGNATED USES**
			1Q10	7Q10	30Q10	
Unnamed tributary	U	N/A	-	-	-	General Criteria
Bell Branch	U	N/A	-	-	-	General Criteria
Moniteau Creek	P	0754	N/A*	N/A*	N/A*	WBC(B), LWW, AQL, SCR

* THE RE ARE LOW FLOW VALUES FOR MONITEAU CREEK BUT THEY HAVE NO EFFECT ON THIS REVIEW.

** 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)

COMMENTS: No Geohydrological evaluation was submitted with the request. Please see Appendix A for a topographic map of the facility. The facility will discharge industrial waste directly relating to wine making. The pollutants from the wine making process are the same pollutants found in standard domestic effluent. Please see Appendix B.

ANTIDEGRADATION POLICY

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)] and federal antidegradation policy at Title 40 Code of Federal Regulation (CFR) Section 131.12 (a), the department is to develop a statewide antidegradation policy and corresponding procedures to implement the policy. A proposed discharge to a water body will be required to undergo a level of Antidegradation Review which documents that the use of a water body's available assimilative capacity is justified. Effective August 30, 2008 a facility will be required to use *Missouri's Antidegradation Rule and Implementation Procedure*. This procedure will be applicable to new and expanded wastewater facilities.

The proposed upgrade will not require an antidegradation review according to *Missouri Antidegradation Rule and Implementation Procedure*. The permittee is proposing to upgrade their lagoon to come into compliance and produce a better quality effluent. There is no increase in design flow. No new pollutants of concern and no expansion of stream loadings are proposed. The following report is a Water Quality Review used to determine the limits for the proposed lagoon upgrade.

GENERAL ASSUMPTIONS OF THE WATER QUALITY REVIEW SHEET

1. A Water Quality and Antidegradation Review (WQAR) assumes that [10 CSR 20-6.010(3), Continuing Authorities and 10 CSR 20-6.010(4) (D), consideration for no discharge] has been or will be addressed in a Missouri State Operating Permit or Construction Permit Application.
2. A WQRS does not indicate approval or disapproval of alternative analysis as per [10 CSR 20-7.015(4) Losing Streams], and/or any section of the effluent regulations.
3. Changes to Federal and State Regulations made after the drafting of this WQRS may alter Water Quality Based Effluent Limits (WQBEL).
4. Effluent limitations derived from Federal or Missouri State Regulations (FSR) may be WQBEL or Effluent Limit Guidelines (ELG).
5. WQBEL supercede ELG only when they are more stringent. Mass limits derived from technology based limits are still appropriate.
6. A WQRS does not allow discharges to waters of the state, and shall not be construed as a National Pollution Discharge Elimination System or Missouri State Operating Permit to discharge or a permit to construct, modify, or upgrade.
7. Limitations and other requirements in a WQRS may change as Water Quality Standards, Methodology, and Implementation procedures change.
8. Nothing in this WQRS removes any obligations to comply with county or other local ordinances or restrictions.

MIXING CONSIDERATIONS

Mixing Zone (MZ): Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(a)].

Zone of Initial Dilution (ZID): Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(b)]

PERMIT LIMITS AND INFORMATION

WASTELOAD ALLOCATION STUDY CONDUCTED (Y OR N):	USE ATTAINABILITY ANALYSIS CONDUCTED (Y OR N):	WHOLE BODY CONTACT USE RETAINED (Y OR N):
N	N	Y

OUTFALL #001

WET TEST (Y OR N): N FREQUENCY: N/A AEC: N/A METHOD: N/A

PARAMETER	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	WQBEL (NOTE 2)	MONITORING FREQUENCY
FLOW	*		*	N/A	ONCE / QUARTER
BOD_5 (MG/L)		45	30	FSR	ONCE / MONTH**
TSS (MG/L)		45	30	FSR	ONCE / MONTH**
PH (S.U.)	6.0 – 9.0		6.0 – 9.0	FSR	ONCE / QUARTER
AMMONIA AS N (MG/L) (MAY 1 – OCT 31)	3.9		1.5	Y	ONCE / QUARTER
AMMONIA AS N (MG/L) (NOV 1 – APR 30)	7.6		2.9	Y	ONCE / QUARTER
OIL & GREASE	15		10	FSR	ONCE / QUARTER
ESHERICHIA COLIFORM (E. COLI)	Please see the E. coli discussion in the Derivation & Discussion of Limits section of this WQRS below.				
CHLORINE, TOTAL RESIDUAL (MG/L)	.008***		017***	FSR	ONCE / QUARTER

* - Monitoring requirements only.

** - Due to the severity of the violations for BOD_5 and TSS, monthly monitoring for the lagoon is proposed. Upon renewal of the operating permit this frequency may be adjusted.

*** - Disinfection is not required but is proposed. If chlorination and dechlorination systems are not constructed and disinfection is eliminated from the design, TRC limits will not be applicable and will be eliminated from the permit.

NOTE 1 – COLONIES/100 ML

NOTE 2 – THIS FIELD INFORMS THE APPLICANT IF THE PARAMETER'S EFFLUENT LIMITATION IS A WATER QUALITY BASED EFFLUENT LIMITATION (WQBEL): Y – YES; FSR – FEDERAL/STATE REGULATION; AND N/A – NOT APPLICABLE. ALSO, PLEASE SEE THE **GENERAL ASSUMPTIONS OF THE WQRS #4 & #5.**

RECEIVING WATER MONITORING REQUIREMENTS

No receiving water monitoring requirements recommended at this time.

DERIVATION AND DISCUSSION OF LIMITS

Wasteload allocations were calculated using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (EPA/505/2-90-001, Section 4.5.5)

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Outfall #001 – Main Facility Outfall

- **Biochemical Oxygen Demand (BOD_5).** 30 mg/L monthly average, 45 mg/L weekly average [10 CSR 20-7.015(8)(B)1]. Influent monitoring may be required for this facility in its Missouri State Operating Permit.
- **Total Suspended Solids (TSS).** 30 mg/L monthly average, 45 mg/L weekly average [10 CSR 20-7.015(8)(B)1]. Influent monitoring may be required for this facility in its Missouri State Operating Permit.
- **Oil & Grease.** 10mg/L monthly average, 15mg/L maximum daily [10 CSR 20-7.015(3)(I)1.]
- **pH.** pH shall be maintained in the range from six to nine (6 – 9) standard units [10 CSR 20-7.015 (8)(B)2.].
- **Total Ammonia Nitrogen.** Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(4)(B)7.C. & Table B3]. Background total ammonia nitrogen = 0.01 mg/L

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg N/L)	Total Ammonia Nitrogen CMC (mg N/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Summer: May 1 – October 31, Winter: November 1 – April 30.

Staff utilized a modified Feed Forward Reaction decay formula to allow degradation for ammonia prior to reaching the first classified water body:

$[NH_3N]_t = [NH_3N]_{t=0} * e^{-kt}$

Where
$[NH_3N]_t$ = ammonia concentration at confluence with classified segment.
$[NH_3N]_{t=0}$ = ammonia concentration at pipe = C_e
k = NH_3 oxidation per day $(k_{1,20})\Xi_1^{(Temp-20)}$
$k_{1,20} = 0.3(day^{-1})$
Ξ_1 = temperature correction factor = 1.083

t = time for effluent to travel to first classified segment (in days) = .132 days
Travel time was calculated using site-specific data submitted by Marshall Engineering.

Summer Temp. = 26°C

Given $k = (0.3)(1.083)^{(26-20)} = 0.4841$ and t = .132 days; $e^{-kt} = e^{-(0.4841)(.132)} = e^{.0639} = .9381$.

Which means 94 % of the ammonia concentration remains after leaving the facility and reaching the first classified stream segment.

C_e = (1.5 mg/L) / .94 = 1.6 mg/L

LTA_c = 1.6 mg/L (0.780) = **1.24 mg/L** [CV = 0.6, 99th Percentile, 30 day average]

MDL = 1.24 mg/L (3.11) = 3.9 mg/L [CV = 0.6, 99th Percentile]
AML = 1.24 mg/L (1.19) = 1.5 mg/L [CV = 0.6, 95th Percentile, n = 30]

Winter Temp. = 6°C

Given $k = (0.3)(1.083)^{(6-20)} = 0.0982$ and t = .132 days; $e^{-kt} = e^{-(0.0982)(.132)} = e^{.013} = .9870$

Which means 98.7% of the ammonia concentration remains after leaving the facility and reaching the first classified stream segment.

C_e = (3.1 mg/L) / .987 = 3.14 mg/L

LTA_c = 3.1 mg/L (0.780) = **2.45 mg/L** [CV = 0.6, 99th Percentile, 30 day average]

MDL = 2.45 mg/L (3.11) = 7.6 mg/L [CV = 0.6, 99th Percentile]
AML = 2.45 mg/L (1.19) = 2.9 mg/L [CV = 0.6, 95th Percentile, n = 30]

Season	Maximum Daily Limit (mg/l)	Average Monthly Limit (mg/l)
Summer	3.9	1.5
Winter	7.6	2.9

- **E. coli**. This facility may be required to have E. coli effluent limitations when Missouri adopts the implementation of the E. coli effluent regulations. Also, please see **GENERAL ASSUMPTIONS OF THE WQRS #7.**

- **Fecal Coliform**. Facility proposed disinfection in the form of chlorination and dechlorination. Due to the fact that the discharge is more than 2 miles from a classified segment, no fecal coliform monitoring or sampling will be required. [10 CSR 20-7.015(8)(B)4.A.]. Future renewals of the facility operating permit will contain effluent limitations for E. coli that will replace fecal coliform as the applicable bacteria criteria in Missouri's water quality standards when Missouri adopts the implementation of the E. coli standards. Also, please see **GENERAL ASSUMPTIONS OF THE WQRS #7.**

- **Total Residual Chlorine (TRC)**. Warm-water Protection of Aquatic Life CCC = 10 µg/L, CMC = 19 µg/L [10 CSR 20-7.031, Table A]. Background TRC = 0.0 µg/L.

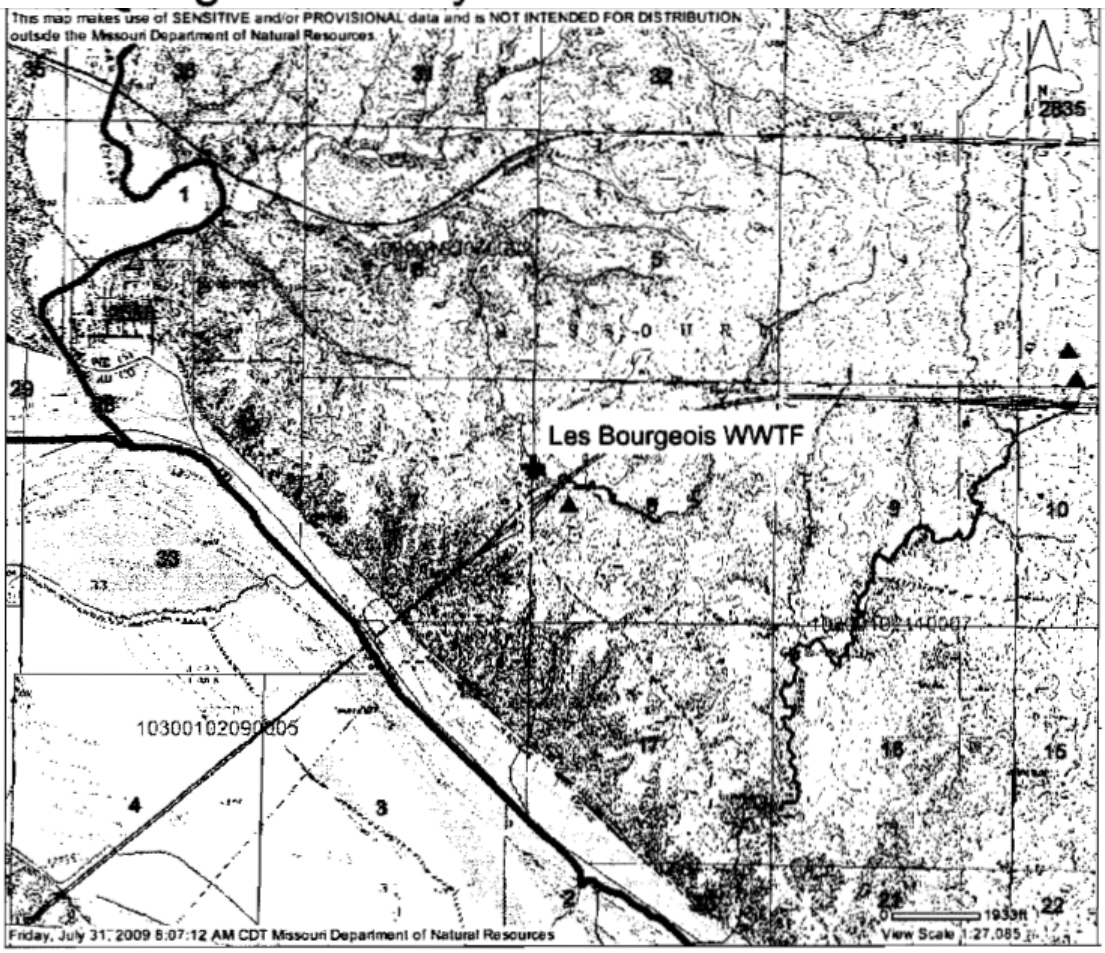
Total Residual Chlorine effluent limits of 0.017 mg/L daily maximum, 0.008 mg/L monthly average are recommended if chlorine is used as a disinfectant. Standard compliance language for TRC, including the minimum level (ML), should be included in the permit.

Reviewer: Greg Brossier GB
Date: 9/9/2009
Unit Chief: John Rustige JR
Section Chief: Refaat Mefrakis

Monitoring and effluent limits contained within this document have been developed in accordance with EPA guidelines using the best available data and are believed to be consistent with Missouri's Water Quality Standards and Effluent Regulations. If additional water quality data or anecdotal information are available that may affect the recommended monitoring and effluent limits, please forward these data and information to the author.

Appendix A

Les Bourgeois Winery WWTF



Appendix B

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
NPDES PERMITS AND ENGINEERING SECTION - NPDES & STORMWATER PERMIT UNIT

WATER QUALITY REVIEW SHEET (WQRS) REQUEST

TYPE OF PROJECT
☐ GRANT/LOAN ☒ ALL OTHER PROJECTS

REQUESTER	TELEPHONE NUMBER
Dennis Sievers, Marshall Engr & Surv, Inc. Columbia, MO	573-875-8832

REASON FOR REQUEST

☐ NEW FACILITY ☒ UPGRADE/EXPANSION ☐ PERMIT RENEWAL

DESCRIPTION
Les Bourgeois Winery - Process grapes into wine. They are doubling their wine production capacity but will not increase their wastewater flow.

FACILITY INFORMATION

FACILITY NAME	NPDES NUMBER (IF APPLICABLE)
Les Bourgeois Winery	

WATER QUALITY ISSUES
The wastewater is primarily process water high in organics (BOD & TSS) but highly treatable by aeration. Some human sewage will be included in the waste flow.

Water quality issues include: effluent limit compliance issues, notice(s) of violation (NOVs), waterbody beneficial uses not attained/supported, etc.

OUTFALL	LOCATION (LAT/LONG OR LEGAL DESCRIPTION)	RECEIVING WATERBODY
001	E½ SE¼ NE ¼ 7 48N 14W	Unamed Trib to Bell Branch to Moniteau Ck to MO River

Please attach topographic map with outfall location(s) marked. §

OUTFALL	DESIGN FLOW	TREATMENT TYPE	EFFLUENT TYPES*
001	3500 GPD	Mech screen + 2-cell aerated lagoon	Industrial

*Describing predominating character of effluent. Example: Municipal Wastewater, Industrial Wastewater, Stormwater, Mining Leachate, etc.

1. Attach a copy of existing NPDES permit if available.
2. For a new or modified facility, attach list of pollutants expected to be discharged.
3. If additional outfalls exist, please attach a separate sheet.

SIGNATURE	DATE
Dennis Sievers, P.E.	7-15-09

Submit request to: Richard J. Laux, NPDES & Stormwater Permit Unit Chief
P.O. Box 176, Jefferson City, MO 65102-0176
Phone: (573) 751-6825, Fax: (573) 522-9920
E-mail: richard.laux@dnr.mo.gov

MO 780-1693 (7-04)