

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

City of Cameron
205 N. Main Street
Cameron, MO 64429

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

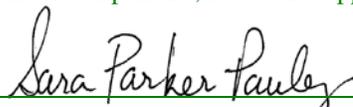
Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

As the department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

August 3, 2015
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

August 2, 2017
Expiration Date


John Madros, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

The Cameron Wastewater Treatment Facility is a 1.6 MGD plant. The facility proposed to improve the existing treatment plant. Improvements will include a modification of the existing mechanical bar screen with a new finer screen, installation of DO control system and bridge-mounted mixers in the existing oxidation ditches, adding a new WAS pump at RAS/WAS pump station, converting an existing sludge storage tank to aerobic digester, replacing four existing blowers with new ones, installation of a belt filter press solids thickening equipment, and construction of a new non-potable water pump station.

The project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

II. COST ANALYSIS FOR COMPLIANCE

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the department shall make a "Finding of Affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The department is not required to determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.
2. All construction shall be in accordance with the plans and specifications submitted by HDR on March 30, 2015.
3. The department must be contacted in writing prior to making any changes to the approved plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(8).
4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the department's Kansas City Regional Office per 10 CSR 20-7.015(9)(E)2.

5. This construction permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans"
6. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."
7. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.
 - A. Sewer mains shall be laid at least 10 feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a 10 foot separation, the department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
 - B. Manholes should be located at least 10 feet horizontally from any existing or proposed water main.
 - C. Manholes shall be located with the top access at or above grade level.
 - D. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:
 - a. The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
 - b. Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends 10 feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the department for use in water main construction.

8. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm. See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.
9. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the department's Water Protection Program at 573-751-1300 for more information. See www.dnr.mo.gov/env/wpp/401/ for more information.
10. Upon completion of construction;
 - A. The city of Cameron will become the continuing authority for operation, maintenance, and modernization of these facilities;
 - B. Submit the enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(D);
 - C. Submit an electronic copy of the as builts if the project was not constructed in accordance with previously submitted plans and specifications; and

IV. REVIEW SUMMARY

1. AMMONIA

The Water Protection Program is providing this notice to inform permittees that EPA's published ammonia criteria for aquatic life protection is lower than the current Missouri criteria. The department has initiated stakeholder discussions on this topic and at this time, there is no firm target date for starting the rulemaking to adopt new standards. More information can be found at <http://dnr.mo.gov/pubs/pub2481.pdf>.

The city has designed the new treatment plant with the EPA's ammonia criteria in its consideration. The proposed treatment plant is expected to be able to meet the new criteria.

2. CONSTRUCTION PURPOSE

The current wastewater treatment plant continues to operate efficiently and in compliance with regulatory requirements. But it faces a number of challenges that must be addressed. The challenges relate primarily to aging equipment that is nearing the end of its useful life and processes that are inefficient in light of recent developments in wastewater treatment technology. The proposed construction will address the issues including aging coarse screening equipment, aging oxidation ditch equipment, and aging biosolids thickening equipment and recycling effluent for non-potable water use.

3. FACILITY DESCRIPTION

The facility description will stay the same since the facility is improving its aging equipment.

Screening/ grit removal/ oxidation ditch/ final and peak flow clarifiers/ aerobic digester/
sludge holding tanks/ sludge thickening / sludge land applied

4. COMPLIANCE PARAMETERS

The improved wastewater treatment plant will help to meet effluent limitations consistently. Final effluent limits of BOD are 45 mg/L weekly average and 30 mg/L monthly average; Final effluent limits of TSS are 45 mg/L weekly average and 30 mg/L monthly average; Final effluent limits of Oil & Grease are 15 mg/L weekly average and 10 mg/L monthly average; Final effluent limits of Ammonia as N are 4.4 mg/L daily maximum and 1.4 mg/L monthly average during April 1 to September 30; Final effluent limits of Ammonia as N are 11.4 mg/L daily maximum and 2.6 mg/L monthly average during October 1 to March 31.

5. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

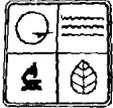
Construction will cover the following items:

- Headworks: improvements consist solely of the replacement of the screen on the existing mechanical bar screen. As part of these improvements, the bar spacing will be revised from 15 mm to 6 mm.
- Oxidation Ditches: two existing oxidation ditches have two brush rotors and three aspirators per ditch. The aspirators will be removed from each ditch and the rotors will be repaired or replaced accordingly. The facility will add two 9-horsepower, submerged, banana style blade mixers per ditch in order to meet the basin mixing demand. The bridge-mounted mixer will have three blades per propeller which has 37.4 inch in diameter. A DO control system will be added to control the rotors and mixers based on the level of DO in the basin.
- RAS/WAS Pump Station: a new WAS pump and associated valves will be added at the RAS/WAS pump station. The WAS pump will be used to pump WAS to the Sludge Digestion basins. The WAS pump will be capable of pumping 250 GPM at 30 feet of total dynamic head. The pump will operate hourly based upon an operator designated daily waste rate.

- **Non-potable Water Pump Station:** The non-potable water station will provide non-disinfected flow to the non-potable water system throughout the WWTP. The station will consist of an inline centrifugal type pump which will take suction directly from the WWTP effluent line. The system components will include isolation valves, inlet strainer, pressure control valve, 50 micron cartridge filter and bladder type water pressure tank. The non-potable pump will be capable of pumping 110 GPM at 165 feet of total dynamic head. The system pressure will be maintained with a minimum of 55 psi and maximum pressure of 70 psi, with proposed initial setting of 65 psi.
- **Solid Digestion and Storage:** The facility has two 202,250-gallon storage tanks and one aerobic digester. One of the existing sludge storage tanks will be converted to an aerobic digester, resulting in two tanks dedicated to aerobic digestion and one tank dedicated to solid storage. The existing fine bubble aeration system in each of the three existing tanks will be replaced with coarse bubble diffuser system. The new aeration system is capable of providing at least 811 cfm air at 7.91 psig per tank. Three existing positive displacement blowers will be replaced with new ones due to age and condition. The existing centrifugal blower will be replaced with a positive displacement blower also. The blowers are equipped with 50 HP, 1760 rpm motors and are capable of 887 cfm air at 9.0 psi with the blower turning 1,465 rpm. The process thickens sludge to 2% solids.
- **Solid Dewatering System:** The system includes belt filter press, sludge feed pump, polymer unit, cake conveyance, and a belt press wash booster pump. The press with two 1.5 meter belts has 3 HP drive. A belt filter press dewateres liquid sludge to approximately 16% solids prior to the disposal. 7.5 HP sludge feed pump has sludge transfer capacity of 85 GPM. Polymer feed unit is equipped with 55 gallon day tank, skid-mounted feed pumps and chemical tote storage. The belt press will operate 6 hours per day, 3 days per week resulting in a feed rate of 85 gallons per minute.

Lei Hou, PE
Engineering Section
lei.hou@dnr.mo.gov

RECEIVED



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
APPLICATION FOR CONSTRUCTION PERMIT
WASTEWATER TREATMENT FACILITY

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
FEE RECEIVED \$2200.00	CHECK NO. 65483
DATE RECEIVED 3/30/15	

WATER PROTECTION PROGRAM

APPLICATION OVERVIEW

The Application for Construction Permit – Wastewater Treatment Facility form has been developed in a modular format and consists of Part A and B. All applicants must complete Part A. Part B should be completed for applicants who currently land-apply wastewater or propose land application for wastewater treatment. Please read the accompanying instructions before completing this form. Submittal of an incomplete application may result in the application being returned.

PART A – BASIC INFORMATION

1.0 APPLICATION INFORMATION (Note – If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project? YES N/A Funding Agency: _____ Project #: _____
- 1.2 Has the Missouri Department of Natural Resources approved the proposed project's antidegradation review?
 YES Date of Approval: _____
- 1.3 Has the department approved the proposed project's facility plan*?
 YES Date of Approval: 9-14 NO N/A (If Not Applicable, complete No. 1.4.)
- 1.4 [Complete only if answered Not Applicable on No. 1.3.] Is a copy of the engineering report* for wastewater treatment facilities with a design flow less than 22,500 gpd included with this application?
 YES NO
- 1.5 Is a copy of the appropriate plans* and specifications* included with this application?
 YES Denote which form is submitted: Hard copy Electronic copy (See instructions.) NO
- 1.6 Is a summary of design* included with this application? YES NO
- 1.7 Has the appropriate operating permit application (A, B, or B2) been submitted to the department?
 YES Date of submittal: _____
 Enclosed is the appropriate operating permit application submittal. Denote which form: A B B2
 N/A Please explain: _____ Existing permit was effective 5/1/2013 and expires June 30, 2017.
- 1.8 Is the facility currently under enforcement with the department or the Environmental Protection Agency? YES NO
- 1.9 Is the appropriate fee included with this application? YES NO (See instructions for appropriate fee.)

* Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT

Cameron, Missouri WWTP Improvements

2.2 PROJECT DESCRIPTION

This project will: 1) add mixers and DO control at the existing oxidation ditches; 2) construct a new non-potable water pump station; 3) replace existing sludge thickeners with a new belt filter press and associated improvements; 4) incorporate a fixed generator.

2.3 SLUDGE HANDLING, USE AND DISPOSAL DESCRIPTION

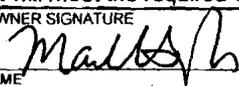
Waste activated sludge will be thickened in the existing aerobic digesters (one of the existing storage basins will be converted to an aerobic digester). A belt filter press will be added to dewater the sludge to approximately 16% for land application.

2.4 DESIGN INFORMATION

- A. Current population: 9,868; Design population: 16,000
- B. Actual Flow: 1.4 gpd; Design Average Flow: 1,600,000 gpd;
Actual Peak Daily Flow: 5,500,000 gpd; Design Maximum Daily Flow: 9,000,000 gpd; Design Wet Weather Event: 9,000,000

2.5 ADDITIONAL INFORMATION

- A. Is a topographic map attached? YES NO
- B. Is a process flow diagram attached? YES NO

3.0 WASTEWATER TREATMENT FACILITY				
NAME Cameron, Missouri WWTF		TELEPHONE NUMBER WITH AREA CODE 816-632-7361		E-MAIL ADDRESS vpersinger@alliancewater.com
ADDRESS (PHYSICAL) 2311 East Grand Ave		CITY Cameron	STATE MO	ZIP CODE 64429
COUNTY DeKalb				
Wastewater Treatment Facility: Mo- 0104299 (Outfall 001 Of 001)				
3.1 Legal Description: <u>NE 1/4, SE 1/4, SE 1/4, Sec. 13, T 57N, R 30W</u> (Use additional pages if construction of more than one outfall is proposed.)				
3.2 UTM Coordinates Easting (X): <u>396619</u> Northing (Y): <u>4400580</u> For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)				
3.3 Name of receiving streams: <u>trib. to Brushy</u> Tributary to Brushy Creek				
4.0 PROJECT OWNER				
NAME City of Cameron, Missouri		TELEPHONE NUMBER WITH AREA CODE (816) 632-2177		E-MAIL ADDRESS director@cameronmo.com
ADDRESS 205 N. Main Street		CITY Cameron	STATE MO	ZIP CODE 64429
5.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system.				
NAME Alliance Water Resources		TELEPHONE NUMBER WITH AREA CODE (816) 632-7361		E-MAIL ADDRESS vpersinger@alliancewater.com
ADDRESS 2311 East Grand Ave		CITY Cameron	STATE MO	ZIP CODE 64429
5.1 A letter from the continuing authority, if different than the owner, is included with this application. <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> N/A				
5.2 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A MISSOURI PUBLIC SERVICE COMMISSION REGULATED ENTITY.				
A. Is a copy of the certificate of convenience and necessity included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
5.3 COMPLETE THE FOLLOWING IF THE CONTINUING AUTHORITY IS A PROPERTY OWNERS ASSOCIATION.				
A. Is a copy of the as-filed restrictions and covenants included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
B. Is a copy of the as-filed warranty deed, quitclaim deed or other legal instrument which transfers ownership of the land for the wastewater treatment facility to the association included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
C. Is a copy of the as-filed legal instrument (typically the plat) that provides the association with valid easements for all sewers included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
D. Is a copy of the Missouri Secretary of State's nonprofit corporation certificate included with this application? <input type="checkbox"/> YES <input type="checkbox"/> NO				
6.0 ENGINEER				
ENGINEER NAME / COMPANY NAME Lorrie Hill, P.E.; HDR Engineering, Inc.		TELEPHONE NUMBER WITH AREA CODE (913) 553-6871		E-MAIL ADDRESS Lorrie.Hill@hdrinc.com
ADDRESS 3471 NE Troon Drive		CITY Lee's Summit	STATE MO	ZIP CODE 64064
7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law. I also understand the issuance of the construction permit does not guarantee the proposed wastewater treatment will meet the required effluent limitations of the issued Missouri State Operating Permit for this facility.				
PROJECT OWNER SIGNATURE 				
PRINTED NAME Mark S. Gaugh			DATE 3-26-2015	
TITLE OR CORPORATE POSITION City Manager		TELEPHONE NUMBER WITH AREA CODE 816.632.2177		E-MAIL ADDRESS director@Cameronmo.com
Mail completed copy to: MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176				
END OF PART A.				
REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHETHER PART B NEEDS TO BE COMPLETE.				

PART B – LAND APPLICATION ONLY

(Submit only if the proposed construction project includes land application of wastewater.)

8.0 FACILITY INFORMATION

8.1 Type of wastewater to be irrigated: Domestic State/National Park Seasonal business
 Municipal Municipal with a pretreatment program or significant industrial users
 Other (explain) _____

8.2 Months when the business or enterprise will operate or generate wastewater:
 12 months per year Part of the year (list months): _____

8.3 This system is designed for:
 No-discharge.
 Partial irrigation when feasible and discharge rest of time.
 Irrigation during recreational season, April – October, and discharge during November – March.
 Other (explain) _____.

9.0 STORAGE BASINS

9.1 Number of storage basins: _____ (Use additional pages if greater than three basins.)

9.2 Type of basins: Steel Concrete Fiberglass Earthen Earthen with membrane liner

9.3 Storage basin dimensions at inside top of berm (feet). Report freeboard as feet from top of berm to emergency spillway or overflow pipe.

Basin #1:	Length _____	Width _____	Depth _____	Freeboard _____	Depth _____	Safety _____	% Slope _____
Basin #2:	Length _____	Width _____	Depth _____	Freeboard _____	Depth _____	Safety _____	% Slope _____
Basin #3:	Length _____	Width _____	Depth _____	Freeboard _____	Depth _____	Safety _____	% Slope _____

9.4 Storage Basin operating levels (report as feet below emergency overflow level).

Basin #1:	Maximum operating water level _____ ft	Minimum operating water level _____ ft
Basin #2:	Maximum operating water level _____ ft	Minimum operating water level _____ ft
Basin #3:	Maximum operating water level _____ ft	Minimum operating water level _____ ft

9.5 Design depth of sludge in storage basins.

Basin #1: _____ ft Basin #2: _____ ft Basin #3: _____ ft

9.6 Existing sludge depth, if the basins are currently in operation.

Basin #1: _____ ft Basin #2: _____ ft Basin #3: _____ ft

9.7 Total design sludge storage: _____ dry tons and _____ cubic feet

10.0 LAND APPLICATION SYSTEM

10.1 Number of irrigation sites _____ Total Acres _____ Maximum % field slopes _____

Location:	_____ ¼,	_____ ¼,	_____ ¼,	_____ Sec.	_____ T	_____ R	_____ County	_____ Acres
Location:	_____ ¼,	_____ ¼,	_____ ¼,	_____ Sec.	_____ T	_____ R	_____ County	_____ Acres
Location:	_____ ¼,	_____ ¼,	_____ ¼,	_____ Sec.	_____ T	_____ R	_____ County	_____ Acres

(Use additional pages if greater than three irrigation sites.)

10.2 Type of vegetation: Grass hay Pasture Timber Row crops
 Other (describe) _____

10.3 Wastewater flow (dry weather) gallons per day: Average annual _____ Seasonal _____ Off-season _____

10.4 Land application rate (design flow including 1-in-10 year storm water flows):

Design:	_____ inches/year	_____ inches/hour	_____ inches/day	_____ inches/week
Actual:	_____ inches/year	_____ inches/hour	_____ inches/day	_____ inches/week

10.5 Total irrigation per year (gallons): Design: _____ gal Actual: _____ gal

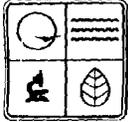
10.6 Actual months used for irrigation (check all that apply):

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

10.7 Land application rate is based on:

Hydraulic Loading Other (describe) _____
 Nutrient Management Plan (N&P) If N&P is selected, is the plan included? YES NO

RECEIVED



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
NO DEGRADATION EVALUATION
CONCLUSION OF ANTIDegradation REVIEW
 (Submit this form with the appropriate Permit Application)

VAI 6111

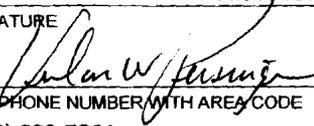
WATER PROTECTION PROGRAM

1. FACILITY			
NAME Cameron, Missouri WWTP		COUNTY DeKalb	
ADDRESS (PHYSICAL) 2311 East Grand Ave	CITY Cameron	STATE MO	ZIP CODE 64429
FACILITY CONTACT: Verlon Persinger, Alliance Water Resources		TELEPHONE NUMBER WITH AREA CODE 816-632-7361	

2. NO DEGRADATION OPTIONS										
<input type="checkbox"/> Renewal without changes <input type="checkbox"/> Sewer extensions <input type="checkbox"/> CSO elimination projects <input type="checkbox"/> No-discharge with land application <input type="checkbox"/> No-discharge with subsurface irrigation <input type="checkbox"/> Recycle or reuse of effluent <input type="checkbox"/> Discharge to a regional wastewater collection and treatment system. <input type="checkbox"/> Addition or replacement of disinfection system for an existing wastewater facility: Ultraviolet or Ozone The facility will be required to meet regulatory effluent limits for bacteria. <input type="checkbox"/> Addition or replacement for chlorination or dechlorination disinfection system of existing facility. The chlorination or dechlorination disinfection treatment system design must be for total removal of Total Residual Chlorine. Therefore, the facility will be required to meet the water quality-bases effluent limits determined by the permit writer or the following water quality-bases effluent limits:										
<table border="1"> <thead> <tr> <th>Beneficial Use of Classified Water</th> <th>MDL (µg/l)</th> <th>AML (µg/l)</th> </tr> </thead> <tbody> <tr> <td>Warm-water fishery</td> <td>17</td> <td>8.2</td> </tr> <tr> <td>Cold-water fishery</td> <td>3.3</td> <td>1.6</td> </tr> </tbody> </table>		Beneficial Use of Classified Water	MDL (µg/l)	AML (µg/l)	Warm-water fishery	17	8.2	Cold-water fishery	3.3	1.6
Beneficial Use of Classified Water	MDL (µg/l)	AML (µg/l)								
Warm-water fishery	17	8.2								
Cold-water fishery	3.3	1.6								
<p>Note: These compliance limits for Total Residual Chlorine are much less than minimum quantification level, or ML, of 0.13. The facility will be required to meet regulatory effluent limits for bacteria.</p> <input checked="" type="checkbox"/> Other, please describe: <u> This project will not increase the flow to the outfall or change the effluent quality.</u>										

Consulted with Water Protection Staff:	
NAME Lei Hou, PE	DATE 03/26/2015

3. NO DEGRADATION PROPOSED PROJECT SUMMARY
<p>This project will: 1) add mixers and DO control at the existing oxidation ditches; 2) construct a new non-potable water pump station; 3) replace existing sludge thickeners with a new belt filter press and associated improvements; 4) incorporate a fixed generator.</p> <p>This project essentially consists of mechanical improvements within the wastewater treatment plant. The improvements will not result in an increase in flow from the plant to the outfall and will not change the effluent quality to the receiving stream.</p>

CONSULTANT: I have prepared or reviewed this form and all attached reports and documentation. The conclusion proposed is consistent with the Antidegradation Implementation Procedure and current state and federal regulations.	
SIGNATURE	DATE
PRINT NAME Lorrie Hill, P.E.	
TELEPHONE NUMBER WITH AREA CODE (913) 553-6871	E-MAIL ADDRESS Lorrie.Hill@hdrinc.com
Owner: I have read and reviewed the prepared documents and agree with this submittal.	
SIGNATURE 	DATE 3-26-2015
TELEPHONE NUMBER WITH AREA CODE (816) 632-2177	E-MAIL ADDRESS director@cameronmo.com
Continuing Authority: Continuing Authority is the permanent organization that will be responsible for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf .	
I have read and reviewed the prepared documents and agree with this submittal.	
SIGNATURE  Mgr. Alliance Water Resources	DATE 3/26/2015
TELEPHONE NUMBER WITH AREA CODE (816) 632-7361	E-MAIL ADDRESS vpersinger@alliancewater.com
<p>Return completed form with the appropriate Permit Application to:</p> <p>Missouri Department of Natural Resources Water Protection Program Water Pollution Control Branch P.O. Box 176 Jefferson City, MO 65102</p>	

MO780-2026 (01/09)