

BEFORE THE
DEPARTMENT OF NATURAL RESOURCES
STATE OF MISSOURI

RECEIVED

MAR 25 2013

WATER PROTECTION PROGRAM

IN THE MATTER OF:

City of Dexter
West Wastewater Lagoon and
East Wastewater Lagoon

No. 2013-WPCB-1216

SERVE:

The Honorable Joe Weber, Mayor
City of Dexter

ABATEMENT ORDER ON CONSENT

I. NOTICE TO RECIPIENTS OF ABATEMENT ORDERS

The issuance of this Abatement Order on Consent (AOC) number 2013-WPCB-1216 by the Missouri Department of Natural Resources is a formal administrative action by the State of Missouri and is being issued because the West Wastewater Lagoon and East Wastewater Lagoon serving the city of Dexter are in violation of the Missouri Clean Water Law (MCWL) and its implementing regulations. This AOC is issued under the authorities of Sections 640.130, 640.131, 644.056 and 644.079, RSMo. Failure to comply with this AOC is, by itself, a violation of the MCWL. Litigation may occur without further notice if there is not compliance with the requirements of this AOC. This AOC does not constitute a waiver or a modification of any requirements of the MCWL, or its implementing regulations, all of which remain in full force and effect. Compliance with the terms of this AOC shall not relieve the city of liability for, or preclude the Department from, initiating a judicial enforcement action to recover civil penalties for any future violations of the MCWL, or to seek injunctive relief, pursuant to Chapter 644, RSMo.

II. FINDINGS OF FACT

A. The city of Dexter is a fourth class municipality with a population of approximately 7,864 people. Wastewater for the city is treated by two (2) wastewater lagoons, the West Lagoon and East Lagoon. The West Lagoon receives the majority of the city's wastewater. The East Lagoon receives some domestic waste, but it primarily receives industrial wastewater from a poultry processing facility owned by Tyson Foods, Inc.

Between July 2008 and November 2009, the city completed upgrades at the West and East Lagoons to increase their respective design flows and enable each lagoon to meet permitted effluent limitations for ammonia, Total Suspended Solids (TSS), and Biochemical Oxygen Demand (BOD). Currently, the East Lagoon is a one (1)-cell aerated lagoon with baffles that divide the lagoon into four (4) separate cells. The East Lagoon has a design population equivalent of 15,600 and a design flow of 1.8 million gallons per day. The East Lagoon has two (2) holding basins for secondary wastewater treatment and sludge is retained in the lagoon. The East Lagoon is located in the NE ¼, SW ¼, Section 26, Township 25 North, Range 10 East, in Stoddard County, Missouri, and operates pursuant to Missouri State Operating Permit (MSOP) number MO-0023213. Effluent from the East Lagoon discharges through Outfall #001 to an unnamed tributary to Lateral #2 Main Ditch. The first classified stream is Lateral #2 Main Ditch, and it is approximately four (4) miles from the point of discharge. Lateral #2 Main Ditch is on the 303(d) list for sediment from agricultural non-point source pollution. The East Lagoon is not a significant source of sediment to Lateral #2 Main Ditch, but MSOP number MO-0023213 includes secondary treatment limits for TSS to ensure that the lagoon does not become a significant source of sediments. The West Lagoon is a three (3)-cell aerated lagoon with a design population equivalent of 9,700, a design flow of 0.775 million gallons per day, and an actual flow of 0.4 million gallons per day. The West Lagoon operates pursuant to MSOP number MO-0043206 and discharges from Outfall #001 to Dudley Main Ditch.

- B. Lateral #2 Main Ditch, Dudley Main Ditch, and their tributaries are waters of the state as the term is defined by Section 644.016 (27), RSMo.
- C. Domestic and industrial wastes are water contaminants as the term is defined in Section 644.016(24), RSMo.
- D. MSOP number MO-0043206 was issued to the city on July 31, 2009, and includes a Schedule of Compliance for the city to complete closure of the South Primary lagoon cell that was part of the city's previous wastewater treatment system by July 31, 2011. On December 28, 2009, the Department received from the city a closure plan for the South Primary lagoon cell. On December 31, 2009, the Department sent correspondence to the city stating that the closure plan was approved. On January 3, 2011, the Department received an interim progress report from the city indicating that the city planned to take bids for the closure and complete the closure after winter 2011. To date, the city has not completed closure of the South Primary lagoon cell at the West Lagoon.
- E. Pursuant to MSOP numbers MO-0023213 and MO-0043206, the city is required to sample effluent discharged from both lagoons, chemically analyze the samples for the parameters listed in part "A," and submit the results of these analyses to the Department on separate monthly Discharge Monitoring Reports (DMRs) on or before the 28th day of the month following the reporting period. Pursuant to MSOP numbers MO-0023213 and MO-0043206, the city is also required to sample the

effluent discharged from both lagoons in July, conduct Whole Effluent Toxicity (WET) testing, and submit an annual WET test report to the Department by October 28.

- F. The 2010 and 2011 annual WET test reports received by the Department indicated that the East Lagoon failed the toxicity testing during both years.
- G. On January 14, 2010, the Department's Environmental Services Program collected and analyzed a sample of effluent from the lagoon, and determined that the concentrations for ammonia, BOD, and TSS exceeded the permitted effluent limitations. On January 21, 2010, Department staff performed a routine compliance inspection at the East Lagoon, and observed that the lagoon was in compliance, and the receiving stream was clear and devoid of sludge and bottom deposits. During the file review, Department staff found that the lagoon's effluent exceeded the permitted limitation for ammonia in December 2009 and BOD in April, May, and June 2009. On February 19, 2010, the Department sent an inspection report to the city documenting observations found during the inspection and related file review.
- H. On April 15, 2010, the Department received a letter from Orr Engineering in response to the Department's February 19, 2010, inspection report, which explained that the newly upgraded East Lagoon had only been operational for a short time and that BOD and TSS concentrations were currently being met, but that ammonia levels were expected to decrease as the new system continued to operate.
- I. On July 16, 2010, the Department issued Notice of Violation (NOV) number 18817SE to the city for exceeding the permitted effluent limitations for ammonia in April and May 2010. On July 26, 2010, the Department received a letter from Waters Engineering, Inc., which explained that the city was aware of the effluent violations, and requested additional time to collect a sufficient amount of data to make an informed decision about how to address the ammonia exceedances.
- J. On or about August 6, 2010, the Department received a letter from the city requesting a temporary waiver on further WET testing at the East Lagoon. On August 13, 2010, the Department responded to the city's waiver request in a correspondence stating that the Department could not grant the waiver unless the city submitted an explanation of corrective measures being taken to correct the ammonia exceedances and an estimated date for resuming WET testing.
- K. On December 21, 2010, the Department issued the city NOV number 18896SE for exceeding the permitted effluent limitations for ammonia at the East Lagoon every month since December 2009, and for failing the 2010 WET test. The NOV required the city to submit to the Department, by March 1, 2011, a preliminary engineering report with recommendations for upgrades necessary for the East Lagoon's effluent to comply with the permitted effluent limitations.

- L. On March 1, 2011, the Department received a letter from Waters Engineering, Inc. The letter stated that the city is still investigating the cause and possible solutions for the ammonia exceedances. The letter explained that one of the city's industrial users (Tyson Foods, Inc.) uses a Quaternary Ammonia Compound as a disinfectant, and that this product may kill nitrifying and heterotrophic bacteria. Thus, the city contacted Tyson Foods, Inc. to discuss the development of controls regarding their use of the product. The letter also stated that the primary baffle curtain was allowing wastewater to bypass into the other cells; thus, the city planned to repair the baffle curtain. The letter did not include a preliminary engineering report or an expected timeframe for submitting a preliminary engineering report.
- M. On March 16, 2011, the Department received a letter from Waters Engineering, Inc., which stated that the baffle curtain would be repaired within ninety (90) days, and the city was seeking a binding agent for the disinfectant thought to be causing the high ammonia concentrations in the East Lagoon.
- N. On May 24, 2011, the Department received a letter from the city stating that due to the costs incurred by the city while investigating the cause of the ammonia exceedances, the city did not perform any I&I assessment or reduction efforts from October 2010 through April 2011.
- O. On September 2, 2011, the Department received a letter via facsimile from Auburn University. The letter stated that Waters Engineering, Inc. had submitted two (2) effluent samples from the lagoon for analysis. The lab detected significant concentrations of quaternary amines in the effluent. The letter further explained that quaternary ammonium compounds found in these concentrations can inhibit nitrifiers, and thus the nitrification process in the wastewater.
- P. On July 14, 2011, Department staff conducted a routine compliance inspection at the East Lagoon, and observed vegetation growing around the clarifiers and sludge deposits in the lagoon, close to the surface of the water and at the edge of the lagoon near the clarifiers. On September 2, 2011, the Department issued NOV number 19015SE to the city for exceeding permitted effluent limitations for ammonia every month since January 2010 and failing the 2010 and 2011 WET testing at the East Lagoon.
- Q. Since July 2010, the city has been on the Quarterly Noncompliance Report for failing to comply with the permitted limitations for ammonia. A DMR history report for December 2009 through June 2012 indicates that effluent from the East Lagoon exceeded permitted limitations for ammonia as nitrogen (permitted monthly average of 4.6 mg/L November 1 through April 30 and 3.2 mg/L May 1 through October 31; permitted daily maximum of 12.1 November 1 through April 30 and 8.4 mg/L May 1 through October 31), TSS (permitted monthly average of 30 mg/L and weekly average of 45 mg/L) and BOD (permitted monthly average of 30 mg/L and weekly average of 45 mg/L) during the following months:

Date	Ammonia		TSS		BOD	
	Monthly Avg	Daily Max	Monthly Avg	Weekly Avg	Monthly Avg	Weekly Avg
Dec-09	36.4	40.4				
Jan-10	25.3	41.6				
Feb-10	32.9	51.6				
Mar-10	50.7	70.2				
Apr-10	40.2	54.8				
May-10	39.5	45.9				
Jun-10	47.3	59.1				
Jul-10	43.7	54.6	34.8	44.0		
Aug-10	42.2	47.3				
Sep-10	36.6	43.9				
Oct-10	41.0	46.9				
Nov-10	39.1	47.1				
Dec-10	30.2	43.8				
Jan-11	27.6	30.7				
Feb-11	28.6	29.1				
Mar-11	26.2	36.1				
Apr-11	24.8	28.8				
May-11	24.3	31.9				
Jun-11	35.8	41.9				
Jul-11	41.4	64.5				
Aug-11	35.5	39.3				
Sep-11	32.2	37.2				
Oct-11	27.0	27.9	33.0	50.0		
Nov-11	22.8	26.8				
Dec-11	17.3	19.2				
Jan-12	19.0	20.5				
Feb-12	18.3	24.8				
Mar-12	27.2	29.3				
Apr-12	28.9	29.8			26.5	58.7
May-12	34.5	41.5	34.2	93.0		
Jun-12	23.2	26.4	40.8	52.0	46.1	69.9

R. Section 644.076.1, RSMo, makes it unlawful to violate the MCWL and regulations promulgated pursuant thereto and establishes civil penalties of up to ten thousand dollars (\$10,000.00) per day per violation.

III. CONCLUSIONS OF LAW

Violations of the MCWL and its implementing regulations alleged herein and found to have been committed by the city at the West Lagoon and East Lagoon are as follows:

1. Failed to comply with the effluent limits contained in Part "A" of MSOP number MO-0023213, in violation of Sections 644.051.1(3) and 644.076.1, RSMo.
2. Caused pollution of a tributary to Lateral #2 Main Ditch, waters of the state, or placed or caused or permitted to be placed a water contaminant in a location where it was reasonably certain to cause pollution of waters of the state, in violation of Sections 644.051.1(1), 644.076.1, RSMo, and 10 CSR 20-7.031(3).
3. Failed 2010 and 2011 WET testing at the East Lagoon as required by the Special Conditions of MO-0023213, in violation of Section 644.076.1, RSMo.
4. Failed to complete closure of South Primary cell of the West Lagoon as required by the Part "E," Schedule of Compliance, of MSOP number MO-0043206, in violation of Section 644.076.1, RSMo.

IV. AGREEMENT

- A. The Department and the city desire to amicably resolve all claims that might be brought against the city for the violations alleged above in Section III, Conclusions of Law, without the city admitting the validity or accuracy of such claims.
- B. The provisions of this AOC shall apply to and be binding upon the parties executing this AOC, their successors, assigns, agents, subsidiaries, affiliates, and lessees, including the officers, agents, servants, corporations, and any persons acting under, through, or for the parties. Any changes in ownership or corporate status, including but not limited to any transfer of assets or real or personal property, shall not affect the responsibilities of the city under this AOC. If the city sells or otherwise transfers the facility, then the city shall cause as a condition of such sale or transfer, that the buyer will assume the obligations of the city under this AOC in writing. In such event, the city shall provide thirty (30) days prior written notice of such assumption to the Department.
- C. The city, in compromise and satisfaction of the Department's claims relating to the above-referenced violations, agrees, without admitting liability or fault, to pay a civil penalty in the amount of fifteen thousand dollars and zero cents (\$15,000.00). The entire civil penalty amount shall be suspended for a period of two (2) years upon the condition that the city does not violate the terms of this AOC. Upon determination that the city has failed to meet the terms of this AOC, including the schedule set out in Paragraphs D through F, the Department shall send a written demand for the suspended penalty to the city. The payment shall be in the form of certified check or cashier's check made payable to "*Stoddard County School Treasurer, as custodian of*

the Stoddard County School Fund.” The city shall have fifteen (15) days from receipt of the written demand to submit the suspended penalty to:

Accounting Program
Missouri Department of Natural Resources
P.O. Box 477
Jefferson City, MO 65102-0176

- D. Within one hundred twenty (120) days of the effective date of this AOC, the city agrees to complete closure of the South Primary cell of the previous wastewater treatment system at the West Lagoon according to the Department-approved closure plan, and submit to the Department a completed Form S, Domestic Sludge Reporting.
- E. The city agrees to complete upgrades and/or implement operational changes and maintenance repairs at its East Lagoon that will enable the facility to comply with the MCWL and its implementing regulations and all conditions and requirements of MSOP number MO-0023213. All required reports, plans and specifications shall be prepared and sealed by a professional engineer licensed to practice in the State of Missouri pursuant to the following schedule:
1. Within one hundred twenty (120) days of the effective date of this AOC, the city agrees to submit to the Department for review and approval a facility plan recommending upgrades and/or operational changes and maintenance repairs at the East Lagoon that will enable the facility to comply with the MCWL and its implementing regulations and all conditions and requirements of MSOP number MO-0023213. The facility plan must be prepared by a professional engineer licensed to practice in the State of Missouri, and shall be developed pursuant to the requirements contained in 10 CSR 20-8.110;
 2. Within fifteen (15) days receipt of Department comments on the city’s facility plan, the city shall respond to and adequately address, to the Department’s satisfaction, all of the Department’s comments on the facility plan;
 3. If the Department-approved engineering report recommends operational changes and/or maintenance repairs, the city shall fully implement all approved recommendations within ninety (90) days of the date the Department approves the facility plan;
 4. If the Department-approved facility plan recommends upgrading the East Lagoon, within sixty (60) days of the date the Department approves the facility plan, the city shall submit to the Department for review and approval, a complete application for a construction permit including the applicable fee and plans and specifications signed and sealed by a professional engineer licensed to practice in the state of Missouri for upgrades at the facility which will enable the lagoon to comply with all applicable conditions and requirements contained in MSOP number MO-0023213;
 5. Within fifteen (15) days receipt of Department comments on the city’s construction permit application, the city shall respond to and adequately address, to the Department’s satisfaction, all of the Department’s comments on the construction permit application;

6. Within one hundred twenty (120) days of issuance of the construction permit, the city agrees to complete construction of the approved upgrades; and
 7. Within thirty (30) days of completing construction, the city agrees to submit to the Department a Statement of Work Completed Form, signed, sealed and dated by a professional engineer registered in the State of Missouri certifying that the project has been completed in accordance with the approved plans and specifications, and a complete application with the applicable fee to modify MSOP number MO-0023213.
- F. Within ninety (90) days of the effective date of the AOC, the city agrees to develop a Maintenance and Repair Program for the city's collection system. The suggested guidance for developing the Maintenance and Repair Program is the United States Environmental Protection Agency's Guide for Evaluating Capacity, Management, Operation, and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems (Document No. EPA 305-B-05-02). The city's Maintenance and Repair Program shall include a schedule for routine and systematic inspection, maintenance and repair of the collection system and identify all known short and long term capital investment projects and activities the city anticipates will be necessary to ensure current and long term compliance with MSOP numbers MO-0023213 and MO-0043206. The Maintenance and Repair Program shall include a process to reevaluate the assumptions, schedules, and conclusions of the Maintenance and Repair Program, and revise the Maintenance and Repair Program as necessary to ensure it continues to provide a viable planning tool that will enable the city to continue to effectively and efficiently operate the city's wastewater treatment system and comply with the requirements of MSOP numbers MO-0023213 and MO-0043206. The reevaluation process shall be planned no less frequently than every three (3) years after preparation of the city's Maintenance and Repair Program.
- G. Immediately upon becoming aware that a deadline or milestone as set forth in this AOC will not be completed by the required deadline, the city shall notify the Department by telephone or electronic mail i) identifying the deadline that will not be completed; ii) identifying the reason for failing to meet the deadline; and iii) proposing an extension to the deadline. Within five (5) days of notifying the Department, the city shall submit to the Department for review and approval a written request containing the same basic provisions of i, ii, and iii listed above. The Department may grant an extension if it deems appropriate. Failure to submit a written notice to the Department may constitute a waiver of the city's right to request an extension and may be grounds for the Department to deny the city an extension.

H. Should the city fail to meet the terms of this AOC, including the terms set out in Paragraphs C through F, the city shall pay stipulated penalties in the following amount:

<u>Days of Violation</u>	<u>Amount of Penalty</u>
1 to 30 days	\$500.00 per day
31 to 90 days	\$1,000.00 per day
91 days and above	\$2,500.00 per day

Stipulated penalties will be paid in the form of a certified or cashier's check made payable to "Stoddard County Treasurer, as custodian of the Stoddard County School Fund." Any such stipulated penalty shall be paid within ten (10) days of demand by the Department and shall be delivered to:

Accounting Program
Missouri Department of Natural Resources
P.O. Box 477
Jefferson City, MO 65102-0176

- I. Nothing in this AOC forgives the city from future non-compliance with the laws of the State of Missouri, nor requires the Department or State of Missouri to forego pursuing by any legal means for any noncompliance with the laws of the State of Missouri. The terms stated herein constitute the entire and exclusive agreement of the parties. There are no other obligations of the parties, be they express or implied, oral or written, except those expressly set forth herein. The terms of this AOC supersede all previous memoranda or understanding, notes, conversations, and agreements, express or implied. This AOC may not be modified orally.
- J. By signing this AOC, all signatories assert that they have read and understood the terms of this AOC, and that they have the authority to sign this AOC on behalf of their respective party.
- K. The effective date of the AOC shall be the date the Department signs the AOC. The Department shall send a fully executed copy of this AOC to the city for its records.
- L. The city shall comply with MSOP numbers MO-0023213 and MO-0043206, the MCWL, Chapter 644, RSMo, and its implementing regulations at all times in the future.

V. **FINDING OF FINANCIAL AFFORDABILITY**

Pursuant to Section 644.145, the Department's Affordability Finding, which addresses the obligations included within this AOC, is attached hereto as Exhibit A. This Affordability Finding does not address future improvements that may be necessary to comply with the MCWL or its implementing regulations. This AOC requires the city to close the South Primary cell of the previously used West Lagoon and submit a facility

plan for upgrades and/or operational changes and maintenance repairs for the East Lagoon's effluent to comply with permitted limitations. The Department intends to prepare an Affordability Finding addressing such improvements in connection with Department approval of such facility plan. The city agrees to provide such additional information requested by the Department as is reasonably necessary to assist in developing any required Affordability Finding in the future.

VI. RIGHT OF APPEAL

By signing this AOC, the city consents to its terms and waives any right to appeal, seek judicial review, or otherwise challenge the terms and conditions of this Order, or the affordability finding referenced herein, pursuant to Sections 621.250, 640.010, 644.056.3, 640.013, 644.145, 644.079.2, RSMo, Chapter 536 RSMo, 10 CSR 20-1.020, 10 CSR 20-6.020(5), the Missouri Constitution, or any other source of law.

VII. CORRESPONDENCE AND DOCUMENTATION

Correspondence or documentation with regard to conditions outlined in this AOC shall be directed to:

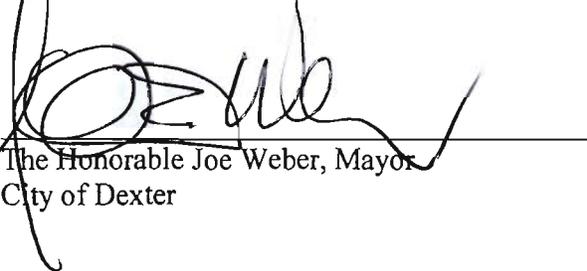
Ms. Corinne Rosania
Compliance and Enforcement Section
Water Protection Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

Agreed to and Ordered this 28th day of March, 2013



John Madras, Director
Water Protection Program
Missouri Department of Natural Resources

Agreed to and Ordered this _____ day of _____, 2013



The Honorable Joe Weber, Mayor
City of Dexter

Copies of the foregoing served by certified mail to:

The Honorable Joe Weber
Mayor, City of Dexter
301 East Stoddard Street
Dexter, MO 63841

CERTIFIED MAIL:

70092250 0000 0886 9965

c. Ms. Diane Huffman
Chief, NPDES and Facilities Management Branch
Water, Wetlands, and Pesticides Division
U.S. Environmental Protection Agency, Region VII
11201 Renner Blvd.
Lenexa, KS 66219

Mr. Jackson Bostic, Director
Missouri Department of Natural Resources
Southeast Regional Office
2155 North Westwood Boulevard
Poplar Bluff, MO 63901

Mr. Chris Wieberg, Chief
Operating Permits Section
Water Protection Program
Missouri Department of Natural Resources
P.O. Box 176
Jefferson City, MO 65102-0176

Dr. Samuel M. Hunter, Chair
Missouri Clean Water Commission
P O Box 984
216 Tanner Street
Sikeston, MO 63801

Mr. Ben A. "Todd" Parnell, III, Vice Chair
Missouri Clean Water Commission
Drury University
900 N. Benton
Springfield, MO 65802

Mr. John Cowherd, Commissioner
Missouri Clean Water Commission
1303 Deer Lane
Mount Vernon, MO 65712

Mr. Samuel D. Leake, Commissioner
Missouri Clean Water Commission
41690 Harrison Trail
Perry, MO 63462

Ms. Wallis Warren, Commissioner
Missouri Clean Water Commission
2671 Jefferiesburg Road
Beaufort, MO 63013

Mr. Dennis Wood, Commissioner
Missouri Clean Water Commission
P.O. Box 112
284 Lillian Lane
Kimberling City, MO 65686

Mr. Buddy Bennett, Commissioner
Missouri Clean Water Commission
1922 N Main Street
Higginsville, MO 64037-1527

Missouri Department of Natural Resources
Water Protection Program
Affordability Determination and Finding
(In accordance with RSMo 644.145)

City of Dexter
East Wastewater Lagoon, MO-0023213
West Wastewater Lagoon, MO-0043206

Section 644.145 RSMo requires the Missouri Department of Natural Resources to make a “finding of affordability” when “issuing permits under” or “enforcing provisions of” state or federal clean water laws “pertaining to any portion of a combined or separate sanitary sewer system or publicly-owned treatment works.”

Description:

The city of Dexter is a fourth class municipality with a population of approximately 7,864 people¹. Wastewater for the city is treated by two (2) wastewater lagoons, the West Lagoon and East Lagoon. The West Lagoon receives the majority of the city’s wastewater. The East Lagoon receives some domestic waste, but it primarily receives industrial wastewater from a poultry processing facility owned by Tyson Foods, Inc. The East Lagoon is a one (1) cell aerated lagoon with baffles to divide the lagoon into four (4) separate cells. The East Lagoon has a design population equivalent of 15,600 and a design flow of 1.8 million gallons per day (MGD). The East Lagoon has two (2) holding basins for secondary wastewater treatment. The East Lagoon is located in the NE ¼, SW ¼, Section 26, Township 25 North, Range 10 East, in Stoddard County, Missouri, and operates pursuant to Missouri State Operating Permit (MSOP) number MO-0023213. Effluent from the East Lagoon discharges through Outfall #001 to an unnamed tributary to Lateral #2 Main Ditch. The West Lagoon, located in the NW ¼, NE ¼, Section 20, Township 25 North, Range 10 East, in Stoddard County, operates pursuant to MSOP number MO-0043206 and discharges to Dudley Main Ditch. The West Lagoon is a three (3) cell aerated lagoon with a stormwater holding lagoon. The population equivalent is 9,700, the design flow is 0.775 MGD and the average flow is 0.4 MGD.

The city was referred to enforcement for failing to comply with effluent limitations for ammonia, causing pollution to waters of the state, and failing the 2010 and 2011 Whole Effluent Toxicity tests. The city also failed to complete closure of the South Primary cell at the West Lagoon as required by the permit.

¹ U.S. Census Bureau, 2010 Census Population Data-
<http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

Residential Connections: 2,992²

Commercial Connections: 404²

Total Connections: 3,396²

New Permit Requirements or Requirements Now Being Enforced:

The AOC contains a schedule for the city to submit to the Department a facility plan evaluating the East Lagoon and recommending upgrades and/or operational changes necessary for compliance with the permitted effluent limitations. The AOC also establishes a deadline for the city to properly close the South Primary cell at the West Lagoon as required by Part E, Schedule of Compliance, in MSOP number MO-0043206. Lastly, the AOC requires the city to submit to the Department a Maintenance and Repair Program for the city's collection system.

Range of Anticipated Costs Associated with Complying with Requirements:

1. Facility plan that shall include:
 - a. An engineering evaluation of the East Lagoon;
 - b. A recommendation of corrective actions necessary to bring the lagoon into compliance with the Missouri Clean Water Law and its implementing regulations;
 - c. A schedule to implement the recommended improvements.
2. Maintenance and Repair Program for the city's collection system. The Program shall include a schedule for routine and systematic inspection, maintenance and repair of the collection system, and identify all known short and long term capital investment projects and activities the city anticipates will be necessary to ensure current and long term compliance with MSOP numbers MO-0023213 and MO-0043206.
3. Close South Primary cell at the West Lagoon according to the Department approved closure plan. The city awarded a contract for this project to Jethero Gater Construction Company on June 7, 2012, prior to executing the AOC. But due to weather constraints, the project had not been completed prior to execution of the AOC. No additional funding is required.

In mid-March 2013, the city plans to implement several modifications that do not require a construction permit at the East Lagoon, which may address chronic effluent violations. The city plans to replace the floating baffle with an earthen levee and install diffusers in the complete mix cell to provide adequate mixing. This project is estimated to cost approximately \$350,000. Following these modifications, in June 2013, Waters Engineering will submit to the Department a Facility Plan evaluating the effectiveness of the modifications and recommending any further upgrades and/or operational changes and maintenance changes that might be necessary to achieve compliance at the East Lagoon. The Facility Plan will cost approximately \$25,000. If the levee and diffuser project is unsuccessful in achieving compliance with permitted effluent

² MDNR Fee Tracking System, WPP Sewer System Connection 2011

limits, Waters Engineering has indicated that a system replacement may be necessary with a rough estimated cost of \$4,500,000. The levee and diffuser project along with other minor operational and maintenance changes can be funded through a Lease-Purchase arrangement, and completed by July 2013; but, if replacement of the system is necessary, the city will pursue funding through the SRF Loan Program, and would need to extend the timeline for completion to July 2015.³

(1) A community's financial capability and ability to raise or secure necessary funding *(examine key indicators of the community's ability to raise funds);*

Current User Rates	<u>\$12.25/month or \$147.00/year⁴</u>
Rate Capacity or Pay as You Go Option:	
Municipal Bond Rating (if applicable):	<u>Not Rated³</u>
Bonding Capacity: <i>(General Obligation Bond capacity allowed by constitution: cities=up to 20% of taxable tangible property sewer districts=up to 5% of taxable tangible property)</i>	<u>\$20,503,900³</u>
Current outstanding debt:	<u>\$6,017,200³</u>

(2) Affordability of pollution control options for the individuals or households of the community;

Current Annual Operating Costs (Exclude Depreciation):	<u>\$2,310,250³</u>
Current User Rate:	<u>\$147.00/year⁴</u>
Estimated Capital Cost of Pollution Control Options:	<u>\$25,000 (facility plan)³</u>
	<u>\$350,000 (modifications)³</u>
	<u>\$4,500,000 (replacement)³</u>
	Or
Annual Cost of Additional <i>(Operating Costs and Debt Service)</i> :	<u>Not Available⁵</u>
Estimated Resulting User Rate and/or Cost per Household:	<u>\$155.28 or \$253.80/year⁴</u>
Median Household Income (MHI):	<u>\$33,375⁶</u>

³ January 25, 2013 letter from the city received by the Department on January 29, 2013.

⁴ "040312 WWW Rates FINAL Mothership," compiled by Missouri Public Utility Alliance. (Rates based on 5,000 gallons of potable water used.) - city-data.com

⁵ Currently not available. City cannot provide data until after the facility plan is prepared.

⁶ Median Household Income – 2006-2010 American Community Survey 5-year Estimates – Median Income in the Past 12 months - <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

Rate and/or Cost per Household as a Percent of Median Household Income (Rate/MHI): 0.46% - 0.76%⁷

Check Appropriate Box	Financial Impact	Residential Indicator (Usage Rate as a percent of MHI)
<input checked="" type="checkbox"/>	Low	Less than 1% MHI
<input type="checkbox"/>	Medium	Between 1% and 2% MHI
<input type="checkbox"/>	High	Greater than 2% MHI

A 5,000 gallon per month residential user currently pays \$12.25 per month, or \$147 per year. The estimated resulting user rate to make a bond payment for required upgrades is expected to be between \$155.28 and \$253.80 per year. With the current MHI, even the high range of the estimated user rate would be a low burden on residential users. The annual user rate would have to increase above \$335 per year (\$27.92 per month) before resulting in a medium burden on residents.

(3) An evaluation of the overall costs and environmental benefits of the control technologies;

Upgrades and/or operational changes and maintenance repairs at the East Lagoon will enable the facility’s effluent to comply with permitted limitations, including specifically, ammonia as nitrogen, total suspended solids (TSS), and biochemical oxygen demand. The city’s East Lagoon regularly exceeds the limitations of these parameters, which can have a detrimental impact on water quality. High ammonia levels are toxic to aquatic life; therefore, reduction of ammonia concentrations in the city’s effluent will directly benefit aquatic life in the receiving stream. Lateral #2 Main Ditch, located four (4) miles downstream of the East Lagoon, is the first classified stream. Lateral #2 Main Ditch is on the 303(d) list for sediment from agricultural non-point sources. The East lagoon is not a significant source of sediment to Lateral #2 Main Ditch, but MSOP number MO-0023213 includes secondary treatment limits for TSS to ensure that the lagoon does not become a significant source of sediments. Therefore, upgrades and/or operational changes that enable the lagoon to comply with the permitted limitations for TSS will benefit the receiving stream by reducing the contribution of solids from the lagoon.

(4) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. This requirement includes but is not limited to:

⁷ (Rate/MHI)x100=(\$155.28/\$33,375)x100=0.46% or =(\$253.80/\$33,375)x100=0.76%

- (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations; and
- (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained;

Potentially Distressed Populations for Dexter, Stoddard County, Missouri	
Unemployment	7.6% ⁸
Median Household Income	\$33,375 ⁶
Percentage Change in Median Household Income (1990–2010)	50.3% increase ⁶
Percentage Population Growth/Decline (1990-2010)	4.0% increase ⁹
Change in Median Age in Years (1990-2010)	4.4 increase ¹⁰
Percent of Households in Poverty	16.0% ¹¹
Percent of Households Relying on Food Stamps	22.2% ¹²

Opportunity for cost savings or cost avoidance: None noted

Opportunity for changes to implementation/compliance schedule:

The AOC includes flexibility for the city to notify the Department and request an extension if the city will be unable to comply with a milestone in the AOC

(5) An assessment of other community investments relating to environmental improvements;

None noted

⁸ MERIC, <http://www.missourieconomy.org/pdfs/urel1112.pdf>

⁹ 2010 Census Population Data - <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>; 2000 Census Population Data - <http://www.census.gov/popest/data/cities/totals/2009/tables/SUB-EST2009-04-29.xls>; 1990 Census Population Data - <http://www.census.gov/prod/cen1990/cp1/cp-1-27.pdf>

¹⁰ Median Age – 2010 American Community Survey 5-year Estimates – B01002 – <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?ref=geo&refresh=t>; 1990 Median Age - <http://www.oseda.missouri.edu/mscdc/census/mo/trendplaces.html>

¹¹ Poverty data – 2010 American Community Survey 5-year Estimates – DP03 - <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

¹² Food stamps – 2006-2010 American community Survey 5-year Estimates – S2201 – <http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t>

(6) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards;

Secondary indicators for consideration

Socioeconomic, Debt and Financial Indicators

Indicators	Strong (3 points)	Mid-Range (2 points)	Weak (1 point)	Score
Bond rating indicator	Above BBB or Baa	BBB or Baa	Below BBB or Baa	Not Rated
Overall net debt ³ as a % of full market property value ¹³	Below 2%	2% - 5%	Above 5%	1 <i>(Overall Net Debt of 6,017,200/ Full Market Property Value of 99,616,100)=0.060x100=6.04%</i>
Unemployment Rate ⁸	>1% below Missouri average	± 1% of Missouri average	>1% above Missouri average	2 <i>(City's unemployment rate of 8.7- Missouri's unemployment rate of 7.7)=1.0%</i>
Median household income ⁶	More than 25% above Missouri MHI	± 25% of Missouri MHI	More than 25% below Missouri average	2 <i>(Missouri's Adjusted MHI of \$33,375- Adj. city's MHI of \$44,306) /44,306= 0.247x100=24.7% below</i>
Property tax revenues as a % of full market property value ¹³	Below 2%	2% - 4%	Above 4%	3 <i>(Property Tax Revenue of 518,502/ Full Market Property Value of 99,616,100)x100=0.5205%</i>
Property tax collection rate ¹³	Above 98%	94% - 98%	Below 94%	Not Available

Average Score for Financial Capability Matrix: 2¹⁴
 Residential Indicator (from Criteria #2 above): 0.46% - 0.76%

¹³ <http://auditor.mo.gov>, Missouri State Auditor's review of 2011 property tax rates

¹⁴ (1+2+2+3)/4=2

Financial Capability Matrix

Financial Capability Indicators Score from above ↓	Residential Indicator (User rate as a % of MHI)		
	Low (Below 1%)	Mid-Range (Between 1.0% and 2.0%)	High (Above 2.0%)
Weak (below 1.5)	Medium Burden	High Burden	High Burden
Mid-Range (1.5 – 2.5)	Low Burden	Medium Burden	High Burden
Strong (above 2.5)	Low Burden	Low Burden	Medium Burden

Estimated Financial Burden: Low

(7) An assessment of any other relevant local community economic conditions.

Median Household Income for Dexter is lower than the average Median Household income for Missouri by approximately \$10,931. Between 1990 and 2010, the Median Household Income for Dexter increased 50.3% (i.e., increased from \$22,612 to \$33,375).⁶

In terms of retail sales, Stoddard County loses retail customers from surrounding counties and the county residents spend less than the state average on retail goods and services.¹⁵ The county does attract customers from surrounding counties for eating and drinking retail.

Conclusion and Finding

As a result of reviewing the above criteria, the Department hereby finds that the action described above will result in a low burden with regard to the community’s overall financial capability and a low financial impact for most individual customers/households.

¹⁵ http://www.missourieconomy.org/pdfs/missouri_retail_trade_september_2008.pdf