

CORRECTIVE ACTION PLAN

MELBOURNE WASTEWATER TREATMENT FACILITY
CITY OF MELBOURNE, ARKANSAS

NPDES PERMIT NO.: AR0020036

AFIN: 33-00026

DATE: January 11, 2017

PREPARED BY:



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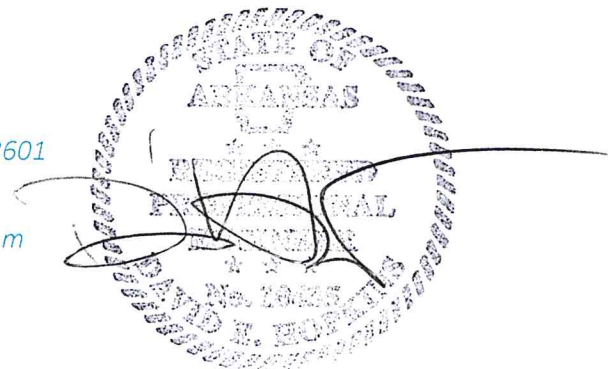


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INTRODUCTION

This Corrective Action Plan (CAP) was prepared by Landmark Engineering & Surveying on behalf of the City of Melbourne, Arkansas. The CAP was requested by ADEQ letter dated September 29, 2016 and prepared at the request of the City of Melbourne. The outline of this plan was as discussed with the City and Water Division Enforcement Branch of the Arkansas Department of Environmental Quality (ADEQ) in a meeting held October 26, 2016. A follow-up letter was issued by ADEQ October 28, 2016 requesting a CAP submittal to address effluent bypass violations and permitted effluent limit violations by January 15, 2017.

PURPOSE

An ADEQ letter dated September 29, 2016 notified the City of Melbourne of compliance issues including 32 effluent violations, an unpermitted discharge of untreated sewage to the former treatment pond, the lack of two operational pumps in a lift station, and issues with a lack of SSO reports since 2014.

A meeting attended by representatives of ADEQ, the City of Melbourne and their consultant allowed an open discussion of the issues faced by Melbourne in the operation of its wastewater facilities, permit compliance, permit reporting, and how to best address the unpermitted discharge of sewage to an old sewage lagoon.

Melbourne's intention is to achieve full compliance with the effluent limits in its NPDES Permit No. ARO020036 with rehabilitation and upgrades of the existing treatment facility and the existing collection system. Copy of correspondence related to this CAP is attached.

SCOPE

The project scope of work consists of the following:

- Detailed corrective actions the City will perform to address permitted effluent violations.
- Detailed corrective actions the City will perform to address the City's use of a relief manhole to discharge untreated sewage to an unpermitted pond.
- Detailed plans to develop a sewer system evaluation study.
- A milestone schedule
- A reasonable expected date of final compliance.

WASTEWATER TREATMENT FACILITY: PERMITTED EFFLUENT VIOLATIONS

History

The City of Melbourne provides sewer service to approximately 750 customers which represents a population of approximately 1848 people. The original collection system and treatment lagoon was originally constructed in about 1964. System extensions and new customers led to the construction of a new wastewater treatment plant in about 1996 at which time the old oxidation lagoon was abandoned. Collection system extensions in 1998 and 2006 extended sewer to all areas inside city limits.

Melbourne owns & operates a municipal wastewater collection & treatment system under NPDES Permit AR0020036. The design capacity of the plant is 0.410 MGD. The average daily flow is 0.200 MGD. The Melbourne Wastewater Treatment Facility provides effective secondary treatment of municipal wastewater. The processes follow:

The wastewater treatment facility receives raw sewage at the influent bar screen. The bar screen separates coarse solids from the waste stream. Daily, accumulated screenings are manually raked to a drying platform located over the influent channel. Solids are removed weekly & disposed of with trash to sanitary landfill. Trash is collected, hauled & disposed by contract hauler.



Primary treatment occurs in an oxidation ditch. The oxidation ditch achieves BOD reduction through mechanical aeration as well as nitrogen removal through the alternating aerated/anoxic zones in the ditch.



Secondary treatment occurs in dual 30' x 13'-6" circular secondary clarifiers. Clarified supernatant is collected in the top launders for disinfection, post-aeration & surface discharge. Mixed liquor and floating scum is continuously recirculated to the primary reactor until MLSS reaches a threshold value indicating high solids. Recirculation valves are then closed on one clarifier & the clarifier permitted to settle. Clarifiers are alternated. Settled solids accumulate in the bottom 3' of the clarifier as sludge. The wet sludge from the secondary clarifier constitutes the source waste stream for Biosolids.



Secondary sludge is decanted from the secondary clarifiers through sludge piping connected to the bottom hoppers. Through a series of valves & yard piping, the operator may select to direct wet sludge to either a tank truck or to one of two drying beds. The preferred disposal method is bay drying; the tank truck is only used when weather conditions prevent drying beds from working effectively.

Drying Beds. Melbourne has two drying beds and one staging bed located southwest of the secondary clarifiers at a lower elevation. Record drawings indicate conventional construction with sand over drainage gravel with perforated laterals. Each bed measures 30 ft x 80 ft and is contained within concrete containment walls. A 12" minimum freeboard is maintained.



Bed No. 2 remains as originally constructed. Bed No. 3 was improved in 2003 with a polymer system and tractor skids.

Clarified effluent flows over the effluent launders and is piped to the chlorine contact chamber where chlorine gas is injected to disinfect the effluent. Contact time is achieved in the baffled contact chamber and sulfur dioxide is injected at the tail end to effect de-chlorination prior to discharge. The treated effluent gravity flows to a discharge point on Mill Creek.

Location

The Wastewater Treatment Facility (WWTF) is located off the 9 Spur on the west side of town.

Conditions of Existing Facility

The existing WWTF has a rated design capacity of 0.410 MGD. The treatment plant appears to be in relatively good condition for its age. A review of DMR data for the past 3 years indicate daily maximum flows exceeding design capacity on several occasions in springtime wet months. This leads to the probability that the collection system has a significant infiltration.

High flows can cause the treatment plant to become hydraulically overloaded which leads to wash-outs in the oxidation ditch and clarifiers. On these occasions, suspended solids, and undigested BOD can reach the effluent weirs & exceed permit limits. The clarifiers will be inspected to determine whether they can be reconfigured to allow series operation during periods of high flow to increase settling time.

The disinfection system relies on chlorine gas to disinfect effluent. New permit limits enacted in 2015 limit effluent chlorine residual to very low levels. The City has worked very hard to reconstruct the sulfur dioxide system to be sure the new limits can be met.

Environmental Resources

Any changes to the treatment plant process may require a construction permit from ADEQ. Any changes to the treatment plant, collection system mains and or pump stations will require review by the Arkansas Health Department.

Growth Area and Population

The City of Melbourne Customers reside within City Limits. According to available data, Melbourne has a population of approximately 1848 which makes up approximately 650 sewer customers. There are three industrial facilities and the school connected to the wastewater system for sanitary flows.

System Operation and Maintenance

Melbourne Water and Wastewater facilities are operated and maintained by two individuals. The Superintendent holds a Municipal Class 3 license and an Operator who has a Municipal Class 2 license. Operation and maintenance of the wastewater treatment plant therefore shares priority with many other duties. All sampling & testing for reporting purposes is done by an outside lab.

Proposed Goals

The goal of the CAP is to establish corrective actions to address permitted effluent limit violations. Towards that goal the following process performance evaluations must be made:

- Determine adequacy of the influent screen.
- Evaluate the condition of oxidation ditch equipment and structures. Determine whether the ditch is effective at removing BOD based on 10-States Standards.
- Evaluate the condition of the dual secondary clarifier equipment and structures. Determine whether the clarifiers are operational, sufficiently automated to control sludge levels and whether clarifier operation can be optimized for more efficient removal of TSS & prevention of unintended discharge based on 10-States Standards.
- Evaluate the condition and effectiveness of the disinfection system to keep FCB within permit limits. Propose alternate disinfection methods to eliminate residuals including UV disinfection.
- Evaluate the condition and effectiveness of the de-chlorination system to keep chlorine residual within permit limits.

ELIMINATION OF UNPERMITTED DISCHARGE

History

The ADEQ letter dated September 29, 2016 indicated that the City had used a relief manhole (prohibited) to discharge untreated sewage to a livestock pond. It was believed that the City had installed this pipe to divert wastewater to a privately-owned pond when the collection system experiences excessive I&I and the lift station downstream could not handle the flow. It was further stated that the downstream lift station was in a state of disrepair with only 1 pump operating. The pond was described as unlined and not considered an equalization basin due to its lack of facilities to return flow to the collection system.

Further investigation revealed that the described pond was the primary means of wastewater treatment until the current treatment plant was constructed in the late 1990's. At that time the pond influent pipe was shut off & the pond abandoned. The pond property remains in City ownership and does not have a discharge to waters of the State.

Proposed Goals

It is the City's desire to close this pond and remove any connection to the wastewater system. In accordance with ADEQ Water Division Guidelines, the proposed closure will be presented as follows:

1. Notify the Department at least 60 days prior to any planned removal, closure or abandonment of any waste storage or treatment structure containing waste or residuals from municipal wastewater treatment.
2. A closure plan submitted to the Department for approval prior to closure of the structure. Closure plan to be developed by NRCS or a professional engineer registered in the State of Arkansas.
3. Closure plan addressing:
 - A. Permittee name, type of permit and permit number.
 - B. Facility location, type of facility and county.
 - C. Type and size of waste storage structure to be closed.
 - D. Quality and quantity of waste contained in waste storage structure.
 - E. Method of waste disposal.
 - F. Final status of waste storage structure (i.e. destroyed, removed, remain in place).
4. This earthen pond will not be converted to a fresh water pond.
5. Remaining waste will be removed and land applied to permitted waste application sites in accordance the City of Melbourne's Waste Management Plan

SEWAGE COLLECTION SYSTEM EVALUATION

SSES

Evaluation of the collection system will concentrate on identification and location of the sources of infiltration so that they can be repaired. Evaluation of the pump stations will also be conducted to determine if pumping equipment is performing within design capacity.

Once the system evaluation is completed, the list of needed rehab items will be prioritized and categorized into items that can be handled by City Staff and items that will have to be done by securing financing for a bid contract.

Excessive infiltration in the collection system is a recurring issue that exaggerates and upsets the treatment process. To be able to get a handle on collection system condition, a comprehensive Sewer System Evaluation Survey (SSES) will be conducted. The SSES will include but not be limited to the following:

- Mapping of the collection system with customer locations & basin determination.
- Create an updated inventory of the collection system
- On-the-ground visual inspection of the system to document broken lids, sinkholes, etc.
- Representative smoke testing and/or infiltration/exfiltration testing of the collection system
- Calibration testing of lift stations
- Preparation and submittal of a report summarizing the information gathered in the SSES

Milestone Schedule

The dates below are contingent on approval of the CAP by ADEQ and adoption of the schedule by the City of Melbourne. If additional time is required by ADEQ or by findings of the SSES or public project funding is required to complete a task, the milestone schedule will be revised as necessary. Once the CAP is approved and adopted, Landmark Engineering proposes to submit a quarterly report to ADEQ on the status of the work on the behalf of the City of Melbourne.

<u>Action</u>	<u>Date</u>
Submit Revised CAP	Jan 15, 2017
Receive ADEQ Approval of CAP	Feb 15, 2017
City of Melbourne Adoption of CAP	March 1, 2017
Begin WWTP Evaluation and SSES Components (Mapping and Visual Inspection, etc.)	April 1, 2017
Submit pond closure plan to ADEQ	May 1, 2017
Begin Smoke Testing	June 15, 2017
ADEQ Approves Pond Closure Plan	July 1, 2017
Begin Pond Closure Construction	August 1, 2017
Submit SSES to ADEQ and City	September 1, 2017
Collection System Minor Repairs Complete	November 1, 2017
All Construction Complete	January 15, 2018
Achieve Effluent Compliance	January 15, 2018

APPENDIX 1: NPDES Permit Violations Correspondence



ARKANSAS
Department of Environmental Quality

October 28, 2016

Honorable Rhonda Halbrook
Mayor, City of Melbourne
P.O. Box 800
Melbourne, AR 72556

RE: NPDES Permit Number: AR0020036 AFIN: 33-00026
NPDES Permit Effluent Violations and Requested CAP

Dear Mayor Halbrook:

The Department appreciates you and your staff for taking the time to meet with us on October 26, 2016, to discuss the compliance issues with the City of Melbourne's NPDES permit. As a follow up to what was discussed during the meeting, the Department understands that the City of Melbourne (City) has hired a professional engineer to perform an evaluation of the treatment system in order to develop a corrective action plan (CAP) to address effluent **bypassing violations** and **permitted effluent limit violations**.

The CAP should include the following:

- Detailed corrective actions the City will perform to address permitted effluent limit violations.
- Detailed corrective actions the City will perform to address the City's use of a relief manhole to discharge untreated sewage to an unpermitted pond.
- Detailed plans to develop a sewer system evaluation study.
- A milestone schedule.
- A reasonable expected date of final compliance.

Please submit the CAP to the Department for approval by **January 15, 2017**.

If you should have any questions or concerns, please contact me at 501-682-0636, or you may e-mail me at porterg@adeq.state.ar.us.

Sincerely,

Gina Porter
Enforcement Analyst
Water Division, Enforcement Branch

Cc: David Hopkins dhopkins@landmarkeng-sur.com

ADEQ

ARKANSAS
Department of Environmental Quality

September 29, 2016

Honorable Rhonda Halbrook
Mayor, City of Melbourne
P.O. Box 800
Melbourne, AR 72556

RE: NPDES Permit Number: AR0020036 AFIN: 33-00026
NPDES Permit Effluent Violations and Requested CAP

Dear Mayor Halbrook:

A review of the NPDES file for the above mentioned facility for the period of August 2013 through July 2016 reveals the following compliance issues:

The facility has reported **32 effluent violations** of Part I, Section A. of NPDES Permit No. AR0020036. 3 violations were attributed to Carbonaceous Biological Oxygen Demand, 12 violations were attributed to Total Suspended Solids, 8 violations were attributed to Fecal Coliform, and 9 violations were attributed to Total Residual Chlorine.

The Department is requesting that you consult with a Professional Engineer (PE), registered in the State of Arkansas, to obtain a certification from them stating you are in compliance with the effluent limitations of the Permit. If this cannot be obtained, please consult with a PE for the purpose of developing a Corrective Action Plan (CAP). The CAP should detail the corrective actions taken or that will be taken to achieve compliance with the terms of the Permit. The CAP should include a milestone schedule and the date the Facility expects to be in compliance.

Regarding the City's use of a relief manhole to discharge untreated sewage to a livestock pond, such manholes are prohibited in the State of Arkansas (Reg 6). The City installed this pipe to divert wastewater to a privately-owned pond when the collection system experiences I&I and the lift station downstream of the manhole cannot pump wastewater to the plant. The lift station does not have two operational pumps and/or there is need for constant repair. This is an unlined pond. It is not an EQ basin as it is not being used to equalize flow, and there is no way to remove the wastewater from the pond to route it to the plant. By doing so, the City is causing unpermitted discharges via the relief manhole to waters of the State. Additionally, it appears that no reporting of any sanitary sewer overflows or bypasses has been submitted to ADEQ in the last 2 years. Please address these issues in the CAP requested above. The CAP needs to be submitted to the Department by **October 28, 2016**.

The Department requests to meet with you, your operator and engineer to discuss the above issues and the corrective action the City intends to take to correct the above violations. Please contact me at 501-682-0636, or you may e-mail me at porterg@adeq.state.ar.us to set a meeting time.

Sincerely,

Gina Porter
Enforcement Analyst
Water Division, Enforcement Branch

Meeting held @ ADEQ
October 26, 2016

~~Consent~~ Corrective
Action Plan
45 days
from 11/11
→ JAN 15

City property
layover

DMR Effluent Violations 08/01/2013 - 09/22/2016

AR0020036 - MELBOURNE, CITY OF / Minor POTW - Effective: 11/01/2015

DMR End Date	Discharge Number	Parameter Description	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter-Mon. Location-Season
08/31/2013	001-A	Solids, total suspended (MO AVG, lb/d)	709.2	51	1,291%	Numeric Vio	Q1	00530-1-0
08/31/2013	001-A	Solids, total suspended (MO AVG, mg/L)	384.5	15	2,463%	Numeric Vio	C2	00530-1-0
08/31/2013	001-A	Solids, total suspended (7 DA AVG, mg/L)	760	22.5	3,278%	Numeric Vio	C3	00530-1-0
08/31/2013	001-A	Coliform, fecal general (30DA GEO, #/100mL)	308	200	54%	Numeric Vio	C2	74055-1-0
08/31/2013	001-A	Coliform, fecal general (7 DA GEO, #/100mL)	1200	400	200%	Numeric Vio	C3	74055-1-0
08/31/2013	001-A	BOD, carbonaceous [5 day, 20 C] (MO AVG, lb/d)	77.3	34	127%	Numeric Vio	Q1	80082-1-0
08/31/2013	001-A	BOD, carbonaceous [5 day, 20 C] (MO AVG, mg/L)	<42.1	10	321%	Numeric Vio	C2	80082-1-0
08/31/2013	001-A	BOD, carbonaceous [5 day, 20 C] (7 DA AVG, mg/L)	82.2	15	448%	Numeric Vio	C3	80082-1-0
05/31/2014	001-A	Chlorine, total residual (INST MAX, mg/L)	0.1	.1	0%	Numeric Vio	C3	50060-1-0
09/30/2014	001-A	Solids, total suspended (MO AVG, lb/d)	51.4	51	1%	Numeric Vio	Q1	00530-1-0
09/30/2014	001-A	Solids, total suspended (MO AVG, mg/L)	40	15	167%	Numeric Vio	C2	00530-1-0
09/30/2014	001-A	Solids, total suspended (7 DA AVG, mg/L)	52	22.5	131%	Numeric Vio	C3	00530-1-0
09/30/2014	001-A	Coliform, fecal general (30DA GEO, #/100mL)	381	200	91%	Numeric Vio	C2	74055-1-0
09/30/2014	001-A	Coliform, fecal general (7 DA GEO, #/100mL)	432	400	8%	Numeric Vio	C3	74055-1-0
11/30/2014	001-A	Chlorine, total residual (INST MAX, mg/L)	0.22	.1	120%	Numeric Vio	C3	50060-1-0
03/31/2015	001-A	Solids, total suspended (MO AVG, lb/d)	148.8	103	44%	Numeric Vio	Q1	00530-1-1
03/31/2015	001-A	Solids, total suspended (MO AVG, mg/L)	72.5	30	142%	Numeric Vio	C2	00530-1-1
03/31/2015	001-A	Solids, total suspended (7 DA AVG, mg/L)	124	45	176%	Numeric Vio	C3	00530-1-1
05/31/2015	001-A	Chlorine, total residual (INST MAX, mg/L)	0.1	.1	0%	Numeric Vio	C3	50060-1-0
06/30/2015	001-A	Chlorine, total residual (INST MAX, mg/L)	0.1	.1	0%	Numeric Vio	C3	50060-1-0
09/30/2015	001-A	Chlorine, total residual (INST MAX, mg/L)	0.3	.1	200%	Numeric Vio	C3	50060-1-0
11/30/2015	001-A	Chlorine, total residual (INST MAX, mg/L)	0.05	.011	355%	Numeric Vio	C3	50060-1-0
12/31/2015	001-A	Chlorine, total residual (INST MAX, mg/L)	0.06	.011	445%	Numeric Vio	C3	50060-1-0
01/31/2016	001-A	Chlorine, total residual (INST MAX, mg/L)	0.08	.011	627%	Numeric Vio	C3	50060-1-0
02/29/2016	001-A	Chlorine, total residual (INST MAX, mg/L)	0.02	.011	82%	Numeric Vio	C3	50060-1-0

balance on trying to reduce effeed to meet permit. feed system has Auto switch generation is me

corrected NO³ value below detection limit of meter



DMR Effluent Violations 08/01/2013 - 09/22/2016

9/22/2016

AR0020036 - MELBOURNE, CITY OF / Minor POTW - Effective: 11/01/2015

DMR End Date	Discharge Number	Parameter Description	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter-Mon. Location-Season
04/30/2016	001-A	Coliform, fecal general (7 DA GEO, #/100mL)	620	400	55%	Numeric Vio	C3	74055-1-0
05/31/2016	001-A	Solids, total suspended (MO AVG, lb/d)	63.7	51	25%	Numeric Vio	Q1	00530-1-0
05/31/2016	001-A	Solids, total suspended (MO AVG, mg/L)	26	15	73%	Numeric Vio	C2	00530-1-0
05/31/2016	001-A	Solids, total suspended (7 DA AVG, mg/L)	29	22.5	29%	Numeric Vio	C3	00530-1-0
06/30/2016	001-A	Coliform, fecal general (7 DA GEO, #/100mL)	984	400	146%	Numeric Vio	C3	74055-1-0
07/31/2016	001-A	Coliform, fecal general (30DA GEO, #/100mL)	865	200	333%	Numeric Vio	C2	74055-1-0
07/31/2016	001-A	Coliform, fecal general (7 DA GEO, #/100mL)	1722	400	331%	Numeric Vio	C3	74055-1-0

DMR Effluent Violations 08/01/2013 - 09/22/2016

AR0020036 - MELBOURNE, CITY OF / Minor POTW - Effective: 11/01/2015

Discharge Number	Parameter Description	Monitoring Period End Date	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter Mon. Location-Season	Outfall	Parameter Code
001-A	Solids, total suspended (MO AVG, lb/d)	08/31/2013	709.2	51	1,291%	Numeric Vio	Q1	00530-1-0	001	00530
001-A	Solids, total suspended (MO AVG, mg/L)	08/31/2013	384.5	15	2,463%	Numeric Vio	C2	00530-1-0	001	
001-A	Solids, total suspended (7 DA AVG, mg/L)	08/31/2013	760	22.5	3,278%	Numeric Vio	C3	00530-1-0	001	
001-A	Solids, total suspended (MO AVG, lb/d)	09/30/2014	51.4	51	1%	Numeric Vio	Q1	00530-1-0	001	
001-A	Solids, total suspended (MO AVG, mg/L)	09/30/2014	40	15	167%	Numeric Vio	C2	00530-1-0	001	
001-A	Solids, total suspended (7 DA AVG, mg/L)	09/30/2014	52	22.5	131%	Numeric Vio	C3	00530-1-0	001	
001-A	Solids, total suspended (MO AVG, lb/d)	03/31/2015	148.8	103	44%	Numeric Vio	Q1	00530-1-1	001	
001-A	Solids, total suspended (MO AVG, mg/L)	03/31/2015	72.5	30	142%	Numeric Vio	C2	00530-1-1	001	
001-A	Solids, total suspended (7 DA AVG, mg/L)	03/31/2015	124	45	176%	Numeric Vio	C3	00530-1-1	001	
001-A	Solids, total suspended (MO AVG, lb/d)	05/31/2016	63.7	51	25%	Numeric Vio	Q1	00530-1-0	001	
001-A	Solids, total suspended (MO AVG, mg/L)	05/31/2016	26	15	73%	Numeric Vio	C2	00530-1-0	001	
001-A	Solids, total suspended (7 DA AVG, mg/L)	05/31/2016	29	22.5	29%	Numeric Vio	C3	00530-1-0	001	
# of Vios = 12										00530

Discharge Number	Parameter Description	Monitoring Period End Date	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter Mon. Location-Season	Outfall	Parameter Code
001-A	Chlorine, total residual (INST MAX, mg/L)	05/31/2014	0.1	.1	0%	Numeric Vio	C3	50060-1-0	001	50060
001-A	Chlorine, total residual (INST MAX, mg/L)	11/30/2014	0.22	.1	120%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	05/31/2015	0.1	.1	0%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	06/30/2015	0.1	.1	0%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	09/30/2015	0.3	.1	200%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	11/30/2015	0.05	.011	355%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	12/31/2015	0.06	.011	445%	Numeric Vio	C3	50060-1-0	001	
001-A	Chlorine, total residual (INST MAX, mg/L)	01/31/2016	0.08	.011	627%	Numeric Vio	C3	50060-1-0	001	

DMR Effluent Violations 08/01/2013 - 09/22/2016

AR0020036 - MELBOURNE, CITY OF / Minor POTW - Effective: 11/01/2015

001-A	Chlorine, total residual (INST MAX, mg/L)	02/29/2016	0.02	.011	82%	Numeric Vio	C3	50060-1-0	001	50060
# of Vios = 9										

Discharge Number	Parameter Description	Monitoring Period End Date	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter-Mon. Location-Season	Outfall	Parameter Code
001-A	Coliform, fecal general (30DA GEO, #/100mL)	08/31/2013	308	200	54%	Numeric Vio	C2	74055-1-0	001	74055
001-A	Coliform, fecal general (7 DA GEO, #/100mL)	08/31/2013	1200	400	200%	Numeric Vio	C3	74055-1-0	001	
001-A	Coliform, fecal general (30DA GEO, #/100mL)	09/30/2014	381	200	91%	Numeric Vio	C2	74055-1-0	001	
001-A	Coliform, fecal general (7 DA GEO, #/100mL)	09/30/2014	432	400	8%	Numeric Vio	C3	74055-1-0	001	
001-A	Coliform, fecal general (7 DA GEO, #/100mL)	04/30/2016	620	400	55%	Numeric Vio	C3	74055-1-0	001	
001-A	Coliform, fecal general (7 DA GEO, #/100mL)	06/30/2016	984	400	146%	Numeric Vio	C3	74055-1-0	001	
001-A	Coliform, fecal general (30DA GEO, #/100mL)	07/31/2016	865	200	333%	Numeric Vio	C2	74055-1-0	001	
001-A	Coliform, fecal general (7 DA GEO, #/100mL)	07/31/2016	1722	400	331%	Numeric Vio	C3	74055-1-0	001	
# of Vios = 8										

Discharge Number	Parameter Description	Monitoring Period End Date	Reported DMR Value	Permit Limit	Vio %	Violation Type	DMR Value Type Code	Parameter-Mon. Location-Season	Outfall	Parameter Code
001-A	BOD, carbonaceous [5 day, 20 C] (MO AVG, lb/d)	08/31/2013	77.3	34	127%	Numeric Vio	Q1	80082-1-0	001	80082
001-A	BOD, carbonaceous [5 day, 20 C] (MO AVG, mg/L)	08/31/2013	<42.1	10	321%	Numeric Vio	C2	80082-1-0	001	
001-A	BOD, carbonaceous [5 day, 20 C] (7 DA AVG, mg/L)	08/31/2013	82.2	15	448%	Numeric Vio	C3	80082-1-0	001	
# of Vios = 3										

9/22/2016 DMR Effluent Violations 08/01/2013 -
09/22/2016

AR0020036 - MELBOURNE, CITY OF /
Minor POTW - Effective: 11/01/2015

AR0020036 - MELBOURNE, CITY OF /
 Minor POTW - Effective: 11/01/2015

Discharge Number	Parameter Description	Violation Type	Outfall	Number of DMR Effluent Violations
001-A	BOD, carbonaceous [5 day, 20 C]	Numeric Vio	001	3
001-A	Chlorine, total residual	Numeric Vio		9
001-A	Coliform, fecal general	Numeric Vio		8
001-A	Solids, total suspended	Numeric Vio		12
			001	32

			Sum:	32
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**DMR Effluent Violations 08/01/2013 -
09/22/2016**

**AR0020036 - MELBOURNE, CITY OF / Minor
POTW - Effective: 11/01/2015**

Discharge Number	Parameter Number	Parameter Name	Monitoring Period End Date	Violation Type
001-A	00530-1-0	Solids, total suspended (7 DA AVG, mg/L)	08/31/2013	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, lb/d)	08/31/2013	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, mg/L)	08/31/2013	E90
001-A	74055-1-0	Coliform, fecal general (30DA GEO, #/100mL)	08/31/2013	E90
001-A	74055-1-0	Coliform, fecal general (7 DA GEO, #/100mL)	08/31/2013	E90
001-A	80082-1-0	BOD, carbonaceous [5 day, 20 C] (7 DA AVG, mg/L)	08/31/2013	E90
001-A	80082-1-0	BOD, carbonaceous [5 day, 20 C] (MO AVG, lb/d)	08/31/2013	E90
001-A	80082-1-0	BOD, carbonaceous [5 day, 20 C] (MO AVG, mg/L)	08/31/2013	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	05/31/2014	E90
001-A	00530-1-0	Solids, total suspended (7 DA AVG, mg/L)	09/30/2014	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, lb/d)	09/30/2014	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, mg/L)	09/30/2014	E90
001-A	74055-1-0	Coliform, fecal general (30DA GEO, #/100mL)	09/30/2014	E90
001-A	74055-1-0	Coliform, fecal general (7 DA GEO, #/100mL)	09/30/2014	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	11/30/2014	E90
001-A	00530-1-1	Solids, total suspended (7 DA AVG, mg/L)	03/31/2015	E90
001-A	00530-1-1	Solids, total suspended (MO AVG, lb/d)	03/31/2015	E90
001-A	00530-1-1	Solids, total suspended (MO AVG, mg/L)	03/31/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	05/31/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	06/30/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	09/30/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	11/30/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	12/31/2015	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	01/31/2016	E90
001-A	50060-1-0	Chlorine, total residual (INST MAX, mg/L)	02/29/2016	E90

AR0020036 - MELBOURNE, CITY OF / Minor
POTW - Effective: 11/01/2015

Discharge Number	Parameter Number	Parameter Name	Monitoring Period End Date	Violation Type
001-A	74055-1-0	Colliform, fecal general (7 DA GEO, #/100mL)	04/30/2016	E90
001-A	00530-1-0	Solids, total suspended (7 DA AVG, mg/L)	05/31/2016	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, lb/d)	05/31/2016	E90
001-A	00530-1-0	Solids, total suspended (MO AVG, mg/L)	05/31/2016	E90
001-A	74055-1-0	Colliform, fecal general (7 DA GEO, #/100mL)	06/30/2016	E90
001-A	74055-1-0	Colliform, fecal general (30DA GEO, #/100mL)	07/31/2016	E90
001-A	74055-1-0	Colliform, fecal general (7 DA GEO, #/100mL)	07/31/2016	E90

AR0020036 - MELBOURNE, CITY OF (33-00026)

DMR End Date	Disch- Desig	Parameter Desc	Reported DMR Value	Limit Value	Vfo %	Vfo Code	DMR Value Recd Date	Days Late	N O D I	NOD Desc	DMR Value Type Code	Parameter Code
06/30/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.373	Report			7/23/14				Q2	50050-1-0
07/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.167	Report			8/13/14				Q1	50050-1-0
07/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.204	Report			8/13/14				Q2	50050-1-0
08/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.165	Report			9/17/14				Q1	50050-1-0
08/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.195	Report			9/17/14				Q2	50050-1-0
09/30/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.161	Report			10/22/14				Q1	50050-1-0
09/30/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.243	Report			10/22/14				Q2	50050-1-0
10/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.157	Report			12/11/14	16			Q1	50050-1-0
10/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.257	Report			12/11/14	16			Q2	50050-1-0
11/30/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.134	Report			12/26/14	1			Q1	50050-1-0
11/30/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.309	Report			12/26/14	1			Q2	50050-1-0
12/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.124	Report			1/26/15	1			Q1	50050-1-0
12/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.2342	Report			1/26/15	1			Q2	50050-1-0
01/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.159	Report			2/25/15				Q1	50050-1-0
01/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.552	Report			2/25/15				Q2	50050-1-0
02/28/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.104	Report			4/8/15	14			Q1	50050-1-0
02/28/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.23	Report			4/8/15	14			Q2	50050-1-0
03/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.22	Report			4/22/15				Q1	50050-1-0
03/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.524	Report			4/22/15				Q2	50050-1-0
04/30/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.137	Report			5/19/15				Q1	50050-1-0
04/30/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.336	Report			5/19/15				Q2	50050-1-0
05/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.244	Report			6/19/15				Q1	50050-1-0
05/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.555	Report			6/19/15				Q2	50050-1-0
06/30/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.185	Report			8/4/15	10			Q1	50050-1-0
06/30/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.385	Report			8/4/15	10			Q2	50050-1-0
07/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.207	Report			8/19/15				Q1	50050-1-0

AR0020036 - MELBOURNE, CITY OF (33-00026)

DMR End Date	Disch- Desig	Parameter Desc	Reported DMR Value	Limit Value	Vio %	Vio Code	DMR Value Recd Date	Days Late	NO D I	NODJ Desc	DMR Valu e Type Code	Parameter Code
06/30/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.177	Report			7/29/13	4			Q1	50050-1-0
06/30/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.395	Report			7/29/13	4			Q2	50050-1-0
07/31/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.249	Report			8/19/13				Q1	50050-1-0
07/31/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.411	Report			8/19/13				Q2	50050-1-0
08/31/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.209	Report			9/17/13				Q1	50050-1-0
08/31/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.45	Report			9/17/13				Q2	50050-1-0
09/30/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.163	Report			10/25/13				Q1	50050-1-0
09/30/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.233	Report			10/25/13				Q2	50050-1-0
10/31/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.148	Report			11/20/13				Q1	50050-1-0
10/31/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.261	Report			11/20/13				Q2	50050-1-0
11/30/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.14	Report			12/23/13				Q1	50050-1-0
11/30/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.271	Report			12/23/13				Q2	50050-1-0
12/31/2013	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.195	Report			1/30/14	5			Q1	50050-1-0
12/31/2013	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.713	Report			1/30/14	5			Q2	50050-1-0
01/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.169	Report			3/25/14	27			Q1	50050-1-0
01/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.385	Report			3/25/14	27			Q2	50050-1-0
02/28/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.145	Report			3/20/14				Q1	50050-1-0
02/28/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.193	Report			3/20/14				Q2	50050-1-0
03/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.251	Report			4/15/14				Q1	50050-1-0
03/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.777	Report			4/15/14				Q2	50050-1-0
04/30/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.217	Report			5/19/14				Q1	50050-1-0
04/30/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.539	Report			5/19/14				Q2	50050-1-0
05/31/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.224	Report			6/23/14				Q1	50050-1-0
05/31/2014	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.585	Report			6/23/14				Q2	50050-1-0
06/30/2014	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.218	Report			7/23/14				Q1	50050-1-0

AR0020036 - MELBOURNE, CITY OF (33-00026)

DMR End Date	Disch- Desig	Parameter Desc	Reported DMR Value	Limit Value	Vfo %	Vfo Code	DMR Value Recd Date	Days Late	N O D I	NODI Desc	DMR Value Type Code	Parameter Code
07/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.413	Report			8/19/15				Q2	50050-1-0
08/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.146	Report			9/21/15				Q1	50050-1-0
08/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.198	Report			9/21/15				Q2	50050-1-0
09/30/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.142	Report			10/15/15				Q1	50050-1-0
09/30/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.19	Report			10/15/15				Q2	50050-1-0
10/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.14	Report			12/2/15	7			Q1	50050-1-0
10/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.18	Report			12/2/15	7			Q2	50050-1-0
11/30/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.166	Report			1/6/16	12			Q1	50050-1-0
11/30/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.396	Report			1/6/16	12			Q2	50050-1-0
12/31/2015	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.239	Report		Mon-Only Ovrd	4/1/16	66			Q1	50050-1-0
12/31/2015	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.538	Report		Mon-Only Ovrd	4/1/16	66			Q2	50050-1-0
01/31/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.16	Report			3/21/16	24			Q1	50050-1-0
01/31/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.319	Report			3/21/16	24			Q2	50050-1-0
02/29/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.122	Report			4/7/16	13			Q1	50050-1-0
02/29/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.149	Report			4/7/16	13			Q2	50050-1-0
03/31/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.206	Report			4/27/16	2			Q1	50050-1-0
03/31/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.429	Report			4/27/16	2			Q2	50050-1-0
04/30/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.196	Report			6/2/16	8			Q1	50050-1-0
04/30/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.506	Report			6/2/16	8			Q2	50050-1-0
05/31/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.293	Report			6/30/16	5			Q1	50050-1-0
05/31/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.556	Report			6/30/16	5			Q2	50050-1-0
06/30/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	0.243	Report			7/22/16				Q1	50050-1-0
06/30/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	0.503	Report			7/22/16				Q2	50050-1-0
07/31/2016	001-A	Flow, in conduit or thru treatment plant (MO AVG, M	Not Submitted	Report							Q1	50050-1-0
07/31/2016	001-A	Flow, in conduit or thru treatment plant (DAILY MX,	Not Submitted	Report							Q2	50050-1-0

5.5 ACRES
~ 4400 cy Waste
~ 4400 cy Soil

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY
STATE PERMITS BRANCH
WATER DIVISION

WASTE STORAGE POND CLOSURE GUIDELINES

1. Permitted facilities are required to notify the Department at least **sixty (60) days** prior of any planned removal, closure or abandonment of any waste storage or treatment structure containing waste or residuals from confined animal facilities, municipal water or wastewater treatment facilities, processing plants or other specified wastes.
2. A closure plan must be submitted to the Department for approval prior to closure of the structure. The closure plan must be developed by the Natural Resources Conservation Service (NRCS), an Arkansas Soil and Water Conservation District water quality technician or a professional engineer registered in the State of Arkansas.
3. A closure plan must contain the following information:
 - A. Permittee name, type of permit and permit number.
 - B. Facility location, type of facility and county.
 - C. Type and size of waste storage structure to be closed (pond, concrete tank, etc.)
 - D. Quality and quantity of waste contained in waste storage structure.
 - E. Method of waste disposal.
 - F. Final status of waste storage structure (i.e. destroyed, removed, remain in place, convert to fresh water pond, etc.).
- n/a 4. For earthen ponds and lagoons converted to fresh water ponds, a minimum of six (6) inches of soil must be removed from the bottom and inside levees of the pond. The disposal of this waste must be addressed in the closure plan.
5. If remaining waste will be land applied, the following additional information is required:
 - A. Legal description and identification of proposed waste application site.
 - B. Permit status of proposed waste application site (i.e. is it included in the current permit?).
 - C. Solids content (%) of waste.
 - D. Plant Available Nitrogen (PAN) of waste.
 - E. Waste application rate.
 - F. Cover crop at waste application site and the corresponding nutrient uptake rate.
 - G. Total number of acres required for disposal of remaining waste.
6. Any waste disposal methods other than land application must be described in sufficient detail and include the final destination of the waste.