

INTERIM REPORT  
Alma, Arkansas Wastewater Treatment Facility  
Corrective Action Plan

NPDES Permit No. AR0021466  
AFIN 17-00059

August 2019

Prepared for:

City of Alma, Arkansas

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## Introduction

The Alma, Arkansas wastewater treatment facility located at 2500 Orrick Road southeast of the City of Alma is permitted under the NPDES permit system as Permit Number AR0021466, AFIN 17-00059. The system treats municipal wastewater from the City of Alma, Arkansas and from the Town of Dyer, Arkansas.

The treatment system consists of a mechanical screen (comminutor) and Parshall flume in the headworks. Lagoon one is 1 (one) completely mixed cell followed by two partially mixed cells. Lagoon two is 2 (two) facultative cells, used as partial-mix cells with supplemental aeration as needed. Lagoon three is a facultative lagoon. Lagoon 4 is used as a holding lagoon for equalization as needed.

The facility is permitted for the following parameters and limits:

Effluent Characteristics	Discharge Limitations		
	Mass, lb./day	Concentration, mg/L or as noted	
		Monthly Avg.	7-Day Avg.
Flow	N/A	Report, MGD	Report, MGD
Overflows	Monthly Total SSOs (occurrences/month)		
Overflow Volume	Monthly Total Volume of SSOs (gallons/month)		
Biochemical Oxygen Demand (BOD <sub>5</sub> )	437.9	30.0	45.0
Total Suspended Solids (TSS)	437.9	30.0	45.0
Dissolved Oxygen (D.O.)	N/A	2.0 (Inst. Min.)	
Fecal Coliform Bacteria (FCB)		Colonies/100 mL	
May - September	N/A	200	400
October - April	N/A	1000	2000
Total Residual Chlorine (TRC)	N/A	0.4 (Inst. Max.)	
Total Recoverable Arsenic	N/A	Report	Report
Total Phosphorus (TP)	N/A	Report	Report
Nitrate + Nitrite Nitrogen (NO <sub>3</sub> + NO <sub>2</sub> - N)	N/A	Report	Report
pH	N/A	<u>Minimum</u> 6.0 s.u.	<u>Maximum</u> 9.0 s.u.
Acute WET Testing			
<b>Pimephales promelas (Acute)</b> Pass/Fail Lethality (48-Hr NOEC) TEM6C Survival (48-Hr NOEC) Coeff. Of Variation Pass/Fail Retest 1 Pass/Fail Retest 2		Report (Pass/Fail)  Report % Report % Report Pass/Fail	

Pass/Fail Retest 3		Report Pass/Fail Report Pass/Fail		
<b>Daphnia pulex (Acute)</b> Pass/Fail Lethality (48-Hr NOEC) TEM3D Survival (48-Hr NOEC) Coeff. Of Variation Pass/Fail Retest 1 Pass/Fail Retest 2 Pass/Fail Retest 3		Report (Pass/Fail)  Report % Report % Report Pass/Fail Report Pass/Fail Report Pass/Fail		

The City entered a Consent Administrative Order in January 31, 2018 as a result of BOD<sub>5</sub> and TSS permit exceedances.

The Corrective Action Plan (CAP) for the City of Alma was developed in 2017. The corrective actions have been implemented within the schedule proposed and amended in March, 2018. This interim report is an update since the May 2019 interim report.

The treatment system continues to meet permit limits for BOD<sub>5</sub> and TSS since the first corrective actions were implemented by increasing aeration in 2017 and 2018.

Corrective Actions Implemented May Through August 2019

1. delivery and deployment of Hexprotect floating cover tiles continues over Lagoon 2. The tiles are contained using a temporary floating baffle as shown in Photo 1.
2. The baffle curtains and floating baffles have been ordered and the factory representative made a site visit to look over the facility.

Effect of Corrective Actions

The treatment system has met permit limits following aeration equipment repairs and implementation, and without the addition of alum and Earthtec®. The Discharge Monitoring Reports (DMRs) indicate that the treatment facility has met the NPDES permit limits during the period from May through July, 2019.

Schedule

The project completion date is expected to be no later than December 31, 2019.



Photo 1  
Hexprotect Floating Cover Tiles



Photo 2  
Tiles Contained Using a Temporary Baffle