ADEQ

A R K A N S A S
Department of Environmental Quality

October 26, 2015

Larry Dunaway, Public Works Director
City of Nashville
426 North Main St
Nashville, AR 71852

RE: City of Nashville WWTP Inspection (Howard Co)
AFIN: 31-00036 NPDES Permit No.: AR0021776

Dear Mr. Dunaway:

On October 13, 2015, I performed a Reconnaissance Inspection of the above-referenced facility in accordance with the provisions of the Federal Clean Water Act, the Arkansas Water and Air Pollution Control Act, and the regulations promulgated thereunder. A copy of the inspection report is enclosed for your records.

No violations were noted at the time of the inspection. Please refer to the attached inspection report for any comments.

If I can be of any assistance, please contact me at mccabe@adeq.state.ar.us or (501) 682-0642.

Sincerely,

Kerri McCabe
Inspector Supervisor
Water Division

cc: Larry Dunaway, City of Nashville, Public Works Director, larry19211@gmail.com

ADEQ
ARKANSAS
Department of Environmental Quality

WATER DIVISION INSPECTION REPORT

AFIN: **31-00036** | PERMIT #: **AR0021776** | DATE: **10/13/2015**

COUNTY: **31 Howard** | PDS #: **087333** | MEDIA: **WN**

GPS LAT: **33.919938** LONG: LOCATION: **Entrance**

FACILITY INFORMATION

NAME:
City of Nashville WWTP
LOCATION:
743 Hwy 27 South
CITY:
Nashville, AR

RESPONSIBLE OFFICIAL

NAME: / TITLE
Larry Dunaway / Public Works Director
COMPANY:
City of Nashville
MAILING ADDRESS:
426 North Main St
CITY, STATE, ZIP:
Nashville AR 71852
PHONE & EXT: / FAX:
870-845-4015 /
EMAIL:
larry19211@gmail.com

CONTACTED DURING INSPECTION: **Yes**

INSPECTION INFORMATION

FACILITY TYPE: **1 - Municipal**
INSPECTOR ID#: **84022 S - State**
FACILITY EVALUATION RATING: **N**
INSPECTION TYPE: **Reconnaissance**
DATE(S): **10/13/2015**
ENTRY TIME: **09:30**
EXIT TIME: **10:30**
PERMIT EFFECTIVE DATE: **7/1/2014**
PERMIT EXPIRATION DATE: **6/30/2019**

FAYETTEVILLE SHALE RELATED: **N**

FAYETTEVILLE SHALE VIOLATIONS: **N**

INSPECTION PARTICIPANTS

NAME/TITLE/PHONE/FAX/EMAIL/ETC.:
Larry Dunaway/Public Works Director/(870) 845-4015
Chip Colston/WW Chief Operator/(870) 845-4522

AREA EVALUATIONS

(S=Satisfactory, M=Marginal, U=Unsatisfactory, N=Not Applicable/Evaluated)

N	PERMIT	**N**	FLOW MEASUREMENT	**N**	STORMWATER
N	RECORDS/REPORTS	**N**	LABORATORY	**N**	FACILITY SITE REVIEW
S	OPERATION & MAINTENANCE	**N**	EFFLUENT/RECEIVING WATER	**N**	SELF-MONITORING PROGRAM
N	SAMPLING	**N**	SLUDGE HANDLING/DISPOSAL	**N**	PRETREATMENT
****	OTHER:				

SUMMARY OF FINDINGS

No violations were noted during the inspection.

City is currently under a CAO and must continue to work with the Water Division's Enforcement Branch to resolve the CAO.

GENERAL COMMENTS

On Tue October 13, 2015 a reconnaissance inspection was conducted on the City's WWTP in response to a complaint. The complainant was concerned for excessive algae and sludge noted in the plant's EQ basin.

The City recently brought new components of the WWTP online (July 2015). This included brand new components as well as converted components. The plant's three-cell facultative lagoon had been converted into two activated sludge basins and an EQ basin. In order to install the aeration system in the two converted activated sludge basins, the City has had to remove accumulated sludge from Pond #1 and Pond #2. The City diverted the excess sludge to the EQ basin. This resulted in sludge accumulating at the gates of the two ponds. Vegetation consisting of wetland species (i.e., rushes) had grown on the two sludge "islands" in the EQ basin. Water volume in the EQ basin was at a seasonal low, and this had increased the visibility of the sludge from the highway.

It is common for WWTP to store sludge in the EQ basin; however, it is designed to divert excess inflow during wet-weather and/or for emergency situations such as sludge management to maintain effluent quality. As allowed by their NPDES permit, the City is managing their sludge to maintain/improve effluent quality.

The City was working on resolving the sludge buildup when I arrived onsite. They stated that they would be removing the vegetation (mechanical means only; no pesticides in EQ basin) and utilizing a boat to break up the sludge islands, and that it would take a couple of days for each sludge island.

The City is still working on removing the accumulated sludge and excess vegetation in the converted aeration basins. This will ensure that sludge routed to the clarifiers is suitable for secondary treatment as well as sufficient for RAS back to the aeration basins. Pin floc (indicative of old sludge) is still present in both clarifiers. The sludge blankets in both clarifiers are increasing, but the City has not accumulated enough sludge to waste.

Excessive algae remain problematic. The City has started adding polymer prior to the clarifiers to control algae and settle sludge, and the City historically utilized DAF units prior to the plant conversion. City is looking at chemical (without Cu) and ultrasonic algae control.

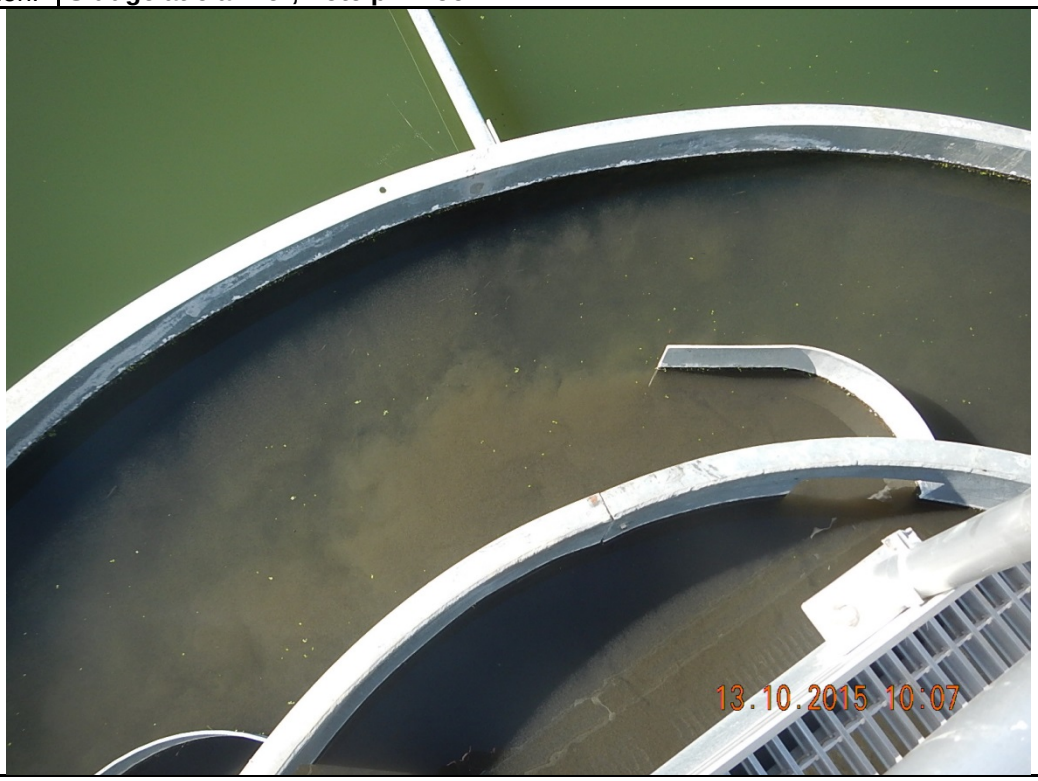
Follow-up inspection to be conducted on Tue Oct 27, 2015.

INSPECTOR'S SIGNATURE: Kerri McCabe	**Kerri McCabe**	DATE: **10/26/2015**
SUPERVISOR'S SIGNATURE:	**Jason Bolenbaugh**	DATE: **10/26/2015**

Water Division Photographic Evidence Sheet					
Location:	**City of Nashville WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Oct 13, 2015**	Time:	**1013**
Witness:	**Chip Colston and Larry Dunaway**			Photo #:	**1**
Description:	**Sludge island outside Pond #1; vegetation consists of wetland species.**				

Photographer:	**Kerri McCabe**	Date:	**Oct 13, 2015**	Time:	**1012**
Witness:	**Chip Colston and Larry Dunaway**			Photo #:	**2**
Description:	**Sludge island outside Pond #2; EQ basin volume very low (Canada Geese leaving trails in bottom deposits).**				

Water Division Photographic Evidence Sheet					
Location:	**City of Nashville WWTP**				
Photographer:	**Kerri McCabe**	Date:	**Oct 13, 2015**	Time:	**1007**
Witness:	**Chip Colston and Larry Dunaway**			Photo #:	**3**
Description:	**Sludge at clarifier; note pin floc.**				



Photographer:	**Kerri McCabe**	Date:	**Oct 13, 2015**	Time:	**1008**
Witness:	**Chip Colston and Larry Dunaway**			Photo #:	**4**
Description:	**Effluent clarity at clarifier weir.**				

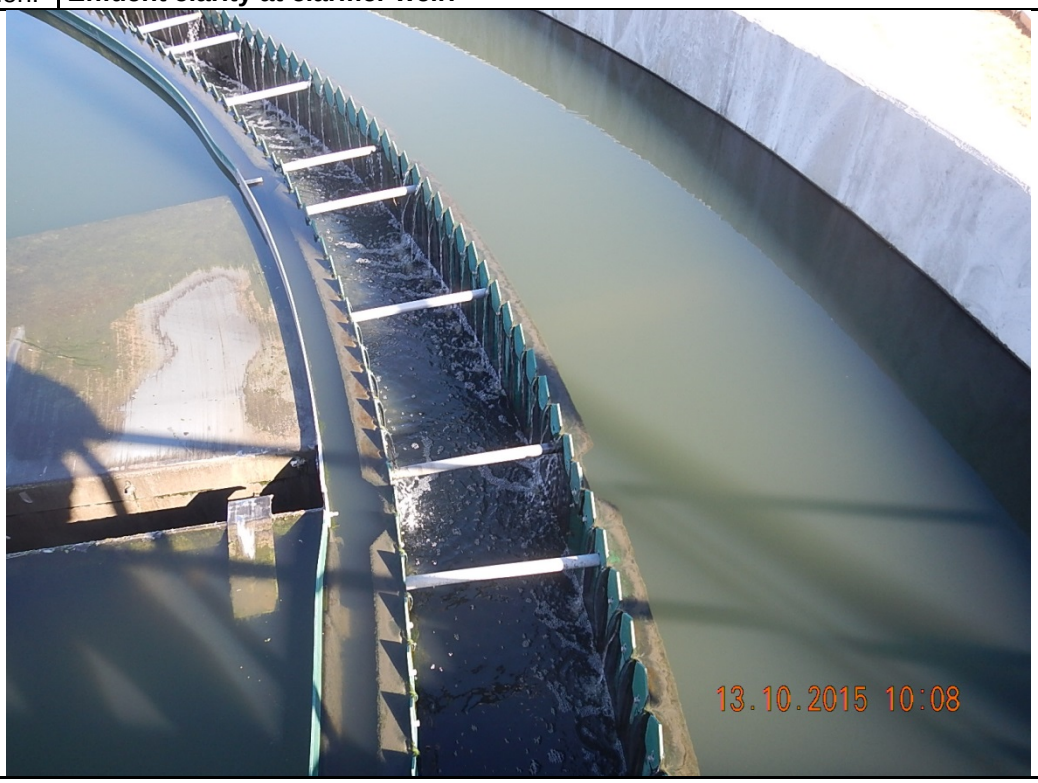


Figure 1. Google Earth image dated Nov 6, 2014 showing the converted three-cell lagoon into two aeration basins (Ponds #1 and #2) and EQ basin; approximate size and location of sludge islands.