

Scott Thompson
Executive Director



Mary Fallin
Governor

OKLAHOMA DEPARTMENT OF ENVIRONMENTAL QUALITY

PUBLIC NOTICE

August 1, 2017

REQUEST FOR PUBLIC COMMENT ON A PROPOSED MODIFICATION TO OKLAHOMA'S WATER QUALITY MANAGEMENT PLAN FOR THE TULSA NORTHSIDE WASTEWATER TREATMENT FACILITY

Public Comment Period Begins: August 1, 2017

Public Comment Period Ends: September 15, 2017

Permittee: Tulsa Metropolitan Utility Authority, 175 E. 2nd Street, Suite 1400, Tulsa, Oklahoma 74127.
[Facility Legal Description: E1/2 of SW¼, SE¼ Section 6, Township 20 North, Range 14 East, Indian Meridian]

Receiving waters and location: Bird Creek OK121300010010_00 (Latitude: 36° 14' 22.06" North; Longitude: -95° 51' 14.18" West).

The City of Tulsa, Northside Plant currently operates a wastewater treatment facility that discharges a design flow of 42.6 MGD to [Bird Creek \(OK121300010010_00\)](#). This mechanical wastewater treatment facility is an activated sludge process plant and is located in the [Bird Creek Watershed](#) in [Tulsa County](#).

In 1987, prior to the renewal of the Northside WWTP's permit, Oklahoma amended its water quality management plan (WQMP) to require flow augmentation for Bird Creek. At the time of the amendment, the closest upstream gage on Bird Creek was the USGS station 07177500 at Sperry, Oklahoma, so this was used as the reference gage. Since then, the USGS has established another flow gage on Bird Creek about one mile upstream of the Facility's discharge point which is much closer to the outfall. The closer station is the USGS station 07178000 at Owasso and its location roughly corresponds to the starting point of the original wasteload allocation (WLA) model used in the early 1980s to set WLAs for the Northside WWTP.

On behalf of the Tulsa Metropolitan Utilities Authority (TMUA), the Indian Nations Council of Governments (INCOG), as the designated 208 Water Quality Planning Agency for the Tulsa Area requested that flow measurements used for permit compliance be measured at the USGS station at Owasso instead of the gage at Sperry. The location of the Owasso gage makes it more representative of the flows from upstream since it includes discharge from Skiatook Lake and three named tributaries (Delaware Creek, Flat Rock Creek, and Coal Creek). Instead of an instantaneous hourly flow measurement, a three-day rolling average will be used to determine compliance with the minimum flow requirement for Bird Creek. The daily average and three-day rolling average flows are calculated by USGS and made available to Northside WWTP.

Currently, [Bird Creek](#) is in Category 4a of DEQ's 2014 list of [impaired](#) waterbodies [the [303\(d\) list](#)] for [bacteria](#). Impaired waterbodies are those that don't meet [Oklahoma's Water Quality Standards](#) (OWQS), they are placed in category 4a after a TMDL has been completed. The OWQS are developed by the Oklahoma Water Resources Board (OWRB) and can be found in [Title 785, Chapter 45 of the Oklahoma Administrative Code](#).

Summer Limits (June 1 – September 30): 10 mg/l CBOD₅
 15 mg/l TSS (total suspended solids)
 3 mg/l NH₃N (ammonia)
 6 mg/l DO (dissolved oxygen)
 142 cfs Average Minimum upstream flow at USGS 07178000

(October 1 – October 31): 10 mg/l CBOD₅
 15 mg/l TSS (total suspended solids)
 5 mg/l NH₃N (ammonia)
 6 mg/l DO (dissolved oxygen)

October 1 – October 15 154 cfs Average Minimum upstream flow at USGS 07178000
 October 16 – October 31 53 cfs Average Minimum upstream flow at USGS 07178000
 October 1 – October 31 102 cfs Average Minimum upstream flow at USGS 07178000

Spring Limits (April 1 – May 31): 10 mg/l CBOD₅
 15 mg/l TSS
 8 mg/l NH₃N
 7 mg/l DO
 130 cfs Average Minimum upstream flow at USGS 07178000

Winter Limits (November 1 – March 31): 10 mg/l CBOD₅
 15 mg/l TSS
 12 mg/l NH₃N
 7 mg/l DO
 53 cfs Average Minimum upstream flow at USGS 07178000

The comment period will be open for 45 days. If you have any concerns regarding these proposed limits, please submit your comments in writing by the end of the workday on **September 15, 2017** to:

Watershed Planning Section
 Water Quality Division
 Oklahoma Department of Environmental Quality
 P.O. Box 1677
 Oklahoma City, OK 73101-1677
 (405) 702-8197
 E-mail: Water.Comments@deq.ok.gov

You may also request a public meeting in writing. If there is a significant degree of public interest, DEQ will schedule a public meeting. After evaluating comments received and making any necessary changes, the WLA will be submitted to the U.S. Environmental Protection Agency (EPA) for final approval.

FACILITY 208:	TULSA METROPOLITAN UTILITY AUTHORITY (NORTHSIDE PLANT)	CITY/TOWN:	TULSA
LEGAL LOCATION:	E1/2 of SW¼, SE¼ S06 T20N R14E	COUNTY:	Tulsa
POD LOCATION:	S06 T20N R14E SE/SW/SE	SEGMENT:	121300
POD LATITUDE:	36° 14' 22.06" N	POD LONGITUDE:	95° 51' 14.18" W
NPDES #:	OK0026221	FACILITY ID #:	S-21309

CURRENT TREATMENT PROCESS:		ACTIVATED SLUDGE	
PRESENT AVG. DAILY FLOW (MGD):	30	PRESENT 2010 CENSUS POPULATION:	198,909-391,906
DESIGN AVG. DAILY FLOW (MGD):	42.6	YEAR 2015-2030 PROJECTED POPULATION:	200,715-452,900
RECEIVING STREAM:	Bird Creek (OK Waterbody ID: OK121300010010_00)		
STREAM CLASS:	Perennial	7-day 2-year low flow in MGD (7Q2):	45.2
DMA:	Tulsa Metropolitan Utility Authority (TMUA)	DMA STATUS:	Approved

YEAR	NORTHSIDE EFFLUENT					MINIMUM UPSTREAM FLOW REQUIRED (MEASURED AT SPERRY GAGE USGS 07177500) CUBIC FEET PER SECOND
	FLOW (MGD)	CBOD ₅ (mg/l)	T.S.S (mg/l)	NH ₃ -N (mg/l)	D.O. (mg/l)	
WINTER CONDITIONS (November 1 - March 31)						
1986	31.0	10.0	15.0	12.0	7.0	46. 49. 53.
1995	36.8	10.0	15.0	12.0	7.0	
2005	42.6	10.0	15.0	12.0	7.0	
EARLY LIFE STAGES (April 1 - May 31)						
1986	31.0	10.0	15.0	8.0	7.0	116. 122. 130.
1995	36.8	10.0	15.0	8.0	7.0	
2005	42.6	10.0	15.0	8.0	7.0	
SUMMER CONDITIONS (June 1 - September 30)						
1986	31.0	10.0	15.0	3.0	6.0	128. 134. 142.
1995	36.8	10.0	15.0	3.0	6.0	
2005	42.6	10.0	15.0	3.0	6.0	
OCTOBER (October 1 - October 31)						
1986	31.0	10.0	15.0	5.0	6.0	(89.)* 135 cfs from Oct. 1-15; 46 cfs from Oct. 16-31.
1995	36.8	10.0	15.0	5.0	6.0	(97.)* 148 cfs from Oct. 1-15; 49 cfs from Oct. 16-31.
2005	42.6	10.0	15.0	5.0	6.0	(102.)* 154 cfs from Oct. 1-15; 53 cfs from Oct. 16-31.

*The number in parentheses indicates the average minimum flow for the month of October.

Seasons	CBOD ₅ (mg/l)	TSS (mg/l)	NH ₃ N (mg/l)	DO (mg/l)	**Minimum Upstream flow required at USGS 07178000 Bird Creek near Owasso
<u>Summer Limits (June 1 - September 30):</u>	<u>10</u>	<u>15</u>	<u>3</u>	<u>6</u>	<u>142 cfs</u>
	-	-	-	-	-
<u>(October 1 - October 31):</u>	<u>10</u>	<u>15</u>	<u>5</u>	<u>6</u>	<u>(October 1- 15) 154 cfs</u> <u>(October 16- 31) 53 cfs</u>
					<u>Average minimum flow for the month (October 1- 31) 102 cfs</u>
<u>Spring Limits (April 1 - May 31):</u>	<u>10</u>	<u>15</u>	<u>8</u>	<u>7</u>	<u>130 cfs</u>
	-	-	-	-	-
<u>Winter Limits (November 1- March 31):</u>	<u>10</u>	<u>15</u>	<u>12</u>	<u>7</u>	<u>53 cfs</u>

** 3-day rolling average

RECOMMENDED TREATMENT ALTERNATIVES	
A)	UPGRADE

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EPA APPROVAL DATE: [2/25/1987Pending](#)
RECORD LAST UPDATED: [4/11/19905/31/2017](#)

*The following modifications were made: [Updated population and changed USGS gage station](#)



OKLAHOMA
DEPARTMENT OF ENVIRONMENTAL QUALITY

projects, 401 Certification requests, stormwater permits, and proposed changes in the CPP.

You are receiving this notice because you are either on DEQ's list to receive all public notices about proposed Waste Load Allocations or you are located downstream in an affected watershed. If you are receiving this notice in error, are getting multiple notices, or do not want to receive future notices, please let us know. In addition to notices about new or changes in 208 Plans for facilities, DEQ's Watershed Planning & Stormwater Permitting Section sends out public notices about proposed changes in the Integrated Report, proposed TMDLs, 404

If you would like to receive any or all of these public notices via e-mail, please send your e-mail address to Water.Comments@deq.ok.gov. Also, please let us know if you want to receive notices for the entire State or just for your [watershed](#). **By receiving PDF public notices via e-mail, you will help save money and the environment by reducing the amount of paper we use to mail them.** In addition to helping the environment, you will be able to click on helpful FYI hyperlinks.



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