



CITY OF CARROLLTON
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December 14, 2023

Georgia Environmental Protection Division
Wastewater Regulatory Program
2 MLK, Jr. Dr, Suite 1470A East
Atlanta, Georgia 30334

RE: City of Carrollton Local Limit Evaluation 2023
Permit # GAJ020126

To whom it may concern:

Please find attached the report referenced above.

1. City of Carrollton Local Limit Evaluation

If you should have any questions or need additional information, please contact me at 770-830-2020.

Sincerely,

Rick Wilson
Wastewater Treatment Superintendent
City of Carrollton

CC: Cylas Thompson, Wastewater Treatment Chief Operator
CC: Tony Richardson, Operations Manager
File

I certify under penalty of law that this document and all attachments were under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Local Limit Evaluation

City of Carrollton Wastewater Treatment System

Permit No. GAJ020126



November 28, 2023

**Prepared by: Hannah Farmer
Industrial Pretreatment Coordinator
City of Carrollton**

2023

Local Limit Evaluation

For the

City of Carrollton Wastewater Treatment System

Introduction

As required by the State of Georgia Department of Natural Resources Environmental Protection Division a written technical evaluation of the need to revise the Industrial Pretreatment Program local limits has been completed. The results of this evaluation are to be submitted to the EPD.

Allowable pollutant concentrations have been established to protect the Publicly Owned Treatment Works (POTW) against receiving levels of pollutants which would inhibit the biological treatment process of the pretreatment plant. Ultimately, the established limits must restrict the pollutant concentrations in the ground water at the Land Application Site to that which will meet the levels allowed for drinking water.

The current limits as well as these new proposed limits were established assuming continued landfill disposal of sludge.

Data

The plant flow averages for this evaluation were derived from the actual 2022-2023 flow records. The average Industrial flow was taken from 2022-2023 water bills. The average daily plant flow for the 1 year period was 4.655 million gallons per day (MGD), of which 1.153 MGD was contributed by industries. Domestic flow = 75.2% and industrial flow = 24.8%.

Table 1 lists the plant flow data used for the previous local limit evaluation completed in 2019 .

Table 2 shows the flow data used for the current evaluation.

Tables 3.0 and 3.1 are data from the 2023 14 day, 24 hour staggered samples of the Influent and Effluent showing Pollutants of Concern (POC) average concentrations.

Table 3.2 lists the Removal Efficiencies from the 2023 analysis.

Table 3.3 list the 2022-23 annual Influent to Effluent BOD and TSS removal

Table 3.4 is from the 2023 14 day sampling event studies of Domestic Pollutant Loading taken from a lift station in a subdivision with approximately 120, 3 or more bedroom homes. There are no commercial or industrial discharges at this sampling location.

Table 4 contains the new maximum allowable industrial discharge limits as well as the limits derived in the 2023 Technical Local Limits Review. For purposes of comparison, categorical Discharge Limits for Metal Finishing are presented. Any categorical industries are required to comply with the more restrictive of the local limits or the national Categorical Standards for that industry. Drinking Water Standards, pretreatment plant influent and effluent limitations, average domestic concentrations, removal efficiencies and plant inhibition concentrations are also listed. See Methodology.

Table 5 contains 2019 Derived Technical Limits, 2023 Derived and Proposed New Limits. Monthly average and maximum 1 day limits of Categorical limits for Metal Finishing are listed for comparison.

Methodology

Table 4, Column A: lists the POC's.

Column B: Drinking Water Standards for each POC.

Column C: Maximum Spray Field Influent strength in mg/L for each POC
Assuming a 75% removal efficiency from application through groundwater.

$$\frac{[\text{Drinking Water Standard}]}{[1.0 - \text{Land Site Removal Efficiency}]}$$

Column D: Treatment plant published Removal efficiencies as a percent.

Column E: Allowable treatment plant influent concentration to protect Drinking Water Standards.

$$\frac{[\text{Maximum Spray Field Influent}]}{[1.0 - \text{Plant Removal Efficiency}]}$$

Column F: Allowable treatment plant influent concentration to protect against Plant Inhibition.

Column G: Lists the most restrictive plant influent of E and F

Column H: Average Domestic Pollutant Loading.

Column I: Maximum Allowable Industrial Discharge.

$$\frac{[\text{Most restrictive G}] - [\text{Domestic Flow \%}] \times [\text{Avg. Dom. Loading}]}{[\text{Industrial Flow \%}]}$$

Example: Copper $\frac{[1.0\text{mg/L}] - [0.752] \times [0.0397\text{mg/L}]}{[0.248]} = 3.91\text{mg/L}$

Column J: Categorical Discharge Limits for Metal Finishing.

Column K: 2023 Tech Derived Limits

For the 2019 local limits review the average daily industrial flow of 1.324MGD was used to calculate the limits. Due to the decrease in industrial usage, the average daily Industrial flow has decreased to 1.153 MGD. This slightly decreased the Industrial contribution from approximately 25.5% in the 2019 evaluation to 24.8%. Total plant flow averages decreased approximately 0.825 MGD.

Conventional Pollutants

The conventional pollutants, Biochemical Oxygen Demand (BOD₅), Total Suspended Solids (TSS), and Oil & Grease are controlled in order to prevent overloading the treatment plants ability to supply oxygen, digest and remove solids oil and grease. Historically, Ordinance limits of 100 mg/l for oil and grease have been found to be effective in protecting the treatment works.

Industrial Discharge Limits for BOD₅ and TSS are derived from total plant design capabilities with an allowance for dilution from domestic wastewater. The plant was designed to handle average influent BOD₅ and TSS loadings of 230 mg/L. Average domestic components of wastewater typically include 220 mg/L BOD₅ and TSS. During the years 2022 and 2023 Industrial users contributed approximately 24.8% of the total daily flow to the plant. They are allowed to discharge up to 250 mg/l BOD₅ and TSS without surcharge and have a permit maximum of 500mg/l. If limits are exceeded surcharges and other sanctions are imposed. Based on design and permitted flow of 7.0 MGD, surcharge limits are calculated as follows:

$$\text{Ind. BOD (Ind. Flow)} + \text{Dom. BOD (Domestic Flow)} = \text{Total BOD (total Flow)}$$

$$\text{Allowable Industrial BOD} = \frac{[\text{Total BOD}] - [\text{Dom. BOD}] \times [\text{Dom. Flow}]}{[\text{Industrial Flow}]}$$

$$\text{Allowable Industrial BOD} = \frac{[230\text{mg/L}] - [220\text{mg/L}] \times [0.752]}{[0.248]} = 260\text{mg/L}$$

USE: Allowable BOD₅ and TSS concentrations = 250 mg/l

A year review of Process Control records from 2023 show plant average BOD₅ and TSS removal efficiencies of 94.2% and 96.3% respectively. (Tables 3.5 and 3.6)

Implementation

No changes from current SUO limits.

TABLE 1**Current Data For 2019**

Local Limits Development	<u>2018-2019</u>	Average Daily
<u>Regulated Industry</u>	Average Daily Flow	Flow
	<u>Gal/Day</u>	Gal/day
		Metals Producers
Cowarts	0	
Decostar	120,285	
Houghton Int.	3,493	
Colorado Premium	62,472	
Pilgrim's	1,006,223	
Southwire	28,348	27,807
Trident	64,096	
Non-regulated Industires*	83,269	
Totals	1,398,186	27,807

TABLE 2**Current Data For 2023**

Local Limits Development	<u>2022</u>	Average Daily
<u>Regulated Industry</u>	Average Daily Flow	Flow
	<u>Gal/Day</u>	Gal/day
		Metals Producers
Colorado Premium	46,037	
Cowarts	0	
Decostar	103,561	
Houghton Int.	6,669	
Pilgrim's	853,873	
Southwire	26,355	26,355
Trident	115,909	
Totals	1,152,404	26,355

Table 3.0

14 DAY REMOVAL EFFICIENCY STUDY
PLANT INFLUENT
September 2023

PAR.	UNIT	DET.	Sep. 10	Sep. 11	Sep. 12	Sep. 13	Sep. 14	Sep. 15	Sep. 16	Sep. 17	Sep. 18	Sep. 19	Sep. 20	Sep. 21	Sep. 22	Sep. 23	AVG.
NH3N	mg/l	0.20	26.2	23.4	38.7	47.6	39.4	39.5	40.01	21.4	15.2	34.3	33.7	43.8	53.1	45.6	35.9
BOD	mg/l	67.0	172	241	319	330	379	355	316	166	241	339	278	344	378	325	299
TSS	mg/l	50.0	190	170	210	190	200	220	210	150	190	210	140	180	270	250	199
O&G	mg/l	1.4	9.2	14.9	10.2	10.0	8.1	6.6	14.0	14.5	BDL	14.0	8.1	5.7	22.2	17.5	11.9
Cn	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Sb	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
As	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Be	mg/l	0.0000	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Cd	mg/l	0.0020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0020
Cr	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	0.0062	BDL	BDL	BDL	0.0056	0.0054	0.0059	0.0077	BDL	0.0062
Cu	mg/l	0.0050	0.0404	0.0356	0.0462	0.0410	0.0437	0.0500	0.0425	0.0312	0.0325	0.0514	0.0529	0.0437	0.1100	0.0557	0.0483
Pb	mg/l	0.0060	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0060
Hg	mg/l	0.00020	BDL	BDL	BDL	0.0002	BDL	0.00039	0.00038	BDL	BDL	BDL	BDL	BDL	0.0006	0.00096	0.00051
Mo	mg/l	0.0050	BDL	BDL	BDL	0.0050	BDL	0.0059	0.0078	BDL	BDL	BDL	0.0152	BDL	BDL	BDL	0.0085
Ni	mg/l	0.0050	BDL	BDL	0.0058	0.0054	0.0060	0.0064	0.0061	BDL	BDL	0.0073	0.0071	0.0073	0.0226	0.0063	0.0080
Se	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Ag	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Tl	mg/l	0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0200
Zn	mg/l	0.0200	0.1220	0.113	0.136	0.137	0.168	0.214	0.1640	0.1160	0.122	0.163	0.140	0.150	0.3470	0.1860	0.1627

14 DAY REMOVAL EFFICIENCY STUDY

*No data available

Table 3.1

**14 DAY REMOVAL EFFICIENCY STUDY
PLANT EFFLUENT**

September 2023

PAR.	UNIT	DET.	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20	Sep 21	Sep 22	Sep 23	Sep 24	AVG.
NH3N	mg/l	0.20	2.93	16.7	16.4	30.8	33.0	31.3	19.90	9.12	0.36	12.1	17.3	23.2	23.90	21.70	3.3	17.5
BOD	mg/l	5.0	21.0	11.0	46.0	46.0	40.0	17.0	9.0	18.0	8.0	15.0	28.0	10.0	12.0	8.0	14.0	20.2
TSS	mg/l	5.0	10.0	2.0	2.0	5.0	4.0	4.0	0.0	5.0	3.0	4.0	4.0	5.0	3.0	1.0	3.0	<5
O&G	mg/l	1.4	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<1.4
Cn	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0070	BDL	BDL	0.0070
Sb	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
As	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Be	mg/l	0.0010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Cd	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Cr	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Cu	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Pb	mg/l	0.0060	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0060
Hg	mg/l	0.00020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.00020
Mo	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0075	BDL	BDL	BDL	0.0052	0.0064
Ni	mg/l	0.0050	0.0074	0.0103	0.0056	0.0064	0.0055	0.0051	BDL	BDL	BDL	BDL	BDL	BDL	0.0101	0.0102	0.0050	0.0073
Se	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Ag	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Tl	mg/l	0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0200
Zn	mg/l	0.0200	0.0519	0.0491	0.0495	0.0346	0.0339	0.0353	0.0354	0.0409	0.0448	0.0563	0.0400	0.0430	0.0469	0.0438	0.0613	0.0444

14 DAY REMOVAL EFFICIENCY STUDY

*No data available

Table 3.2

**14 DAY REMOVAL EFFICIENCY STUDY
INFLUENT-EFFLUENT 24 HR STAGGERD SAMPLING**

September 2023

PARAMETER	UNIT	DET	INFLUENT AVERAGE	EFFLUENT AVERAGE	PERCENT REMOVAL
NH3(N)	mg/l	1.2	35.9	17.5	51.3%
BOD-5	mg/l	67	299	20.2	93.2%
TSS	mg/l	50	199	5.0	97.5%
O&G	mg/l	1.4	11.9	1.4	88.3%
Cn	mg/l	0.005	0.0050	0.0070	-40.0%
Sb	mg/l	0.01	<0.010	<0.010	-
As	mg/l	0.01	<0.010	<0.010	-
Be	mg/l	0.001	<0.010	<0.010	-
Cd	mg/l	0.002	<0.002	<0.005	-
Cr	mg/l	0.005	0.0062	0.0050	18.8%
Cu	mg/l	0.005	0.0483	0.005	89.7%
Pb	mg/l	0.006	<0.006	<0.006	-
Hg	mg/l	0.0002	0.00051	0.0002	61.1%
Mo	mg/l	0.005	0.0085	0.0064	25.1%
Ni	mg/l	0.005	0.0080	0.0073	9.2%
Se	mg/l	0.01	<0.010	<0.010	-
Ag	mg/l	0.005	<0.005	<0.005	-
Tl	mg/l	0.02	<0.020	<0.020	-
Zn	mg/l	0.02	0.1627	0.044	72.7%

September 2023

Table 3.3

2022/23

INFLUENT to EFFLUENT

BOD and TSS REDUCTION

MONTH	% REDUCTION BOD	% REDUCTION TSS	Total Monthly Flow Mgal
SEP	96.4%	98.0%	131.93
OCT	96.2%	97.8%	116.31
NOV	93.5%	97.6%	118.22
DEC	92.0%	95.6%	143.73
JAN	86.9%	88.0%	189.71
FEB	93.7%	95.3%	164.64
MAR	92.5%	95.2%	178.75
APR	95.5%	95.9%	161.82
MAY	94.9%	97.3%	135.91
JUN	95.0%	97.2%	112.54
JUL	96.0%	98.1%	114.54
AUG	94.5%	96.2%	128.84

AVG BOD Reduction

AVG TSS Reduction

Total Flow (MGal)

94%

96%

141.41

AVERAGE DAILY FLOW 4.665 MGD

Table 3.4

14 DAY REMOVAL EFFICIENCY STUDY
OAK MT. LIFT STATION

September 2023

PAR.	UNIT	DET.	Sep 10	Sep 11	Sep 12	Sep 13	Sep 14	Sep 15	Sep 16	Sep 17	Sep 18	Sep 19	Sep 20	Sep 21	Sep 22	Sep 23	AVG.
NH3N	mg/l	0.20	39.5	42.9	41.1	43.5	49.1	46.9	26.0	37.6	36.8	38.9	37.5	41.7	52.6	55.8	42.1
BOD	mg/l	67.0	337	210	330	288	296	270	205	193	197	236	286	242	211	241	253
TSS	mg/l	50.0	360	90	130	210	290	280	210	80	130	100	80	90	80	150	163
O&G	mg/l	1.4	13.3	13.2	12.9	19.2	6.4	2.3	10.7	4.6	11.9	10.7	9.5	11.4	9.2	12.8	10.6
Cn	mg/l	0.0050	BDL	0.0070	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0070
Sb	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
As	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Be	mg/l	0.0010	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Cd	mg/l	0.0020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0020
Cr	mg/l	0.0050	BDL	BDL	0.0104	0.0075	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.005
Cu	mg/l	0.0050	0.0511	0.0756	0.0759	0.0383	0.0374	0.0380	0.0226	0.0262	0.0246	0.0303	0.0341	0.0322	0.0368	0.0330	0.0397
Pb	mg/l	0.0060	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.006
Hg	mg/l	0.00020	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0002
Mo	mg/l	0.0050	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0050
Ni	mg/l	0.0050	BDL	0.0111	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0111
Se	mg/l	0.0100	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0100
Ag	mg/l	0.0050	BDL	BDL	BDL	0.0095	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	0.0095
Tl	mg/l	0.0200	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	<0.0200
Zn	mg/l	0.0200	0.2480	0.408	0.397	0.163	0.178	0.160	0.0991	0.1210	0.1060	0.1300	0.1390	0.1390	0.1440	0.1270	0.1828

14 DAY REMOVAL EFFICIENCY STUDY

Table 4

CITY OF CARROLLTON, GEORGIA
INDUSTRIAL DISCHARGE LIMITS-DRINKING WATER QUALITY AND PLANT INHIBITION

A	B	C	D	E	F	G	H	I	J	L
Pollutant	Drinking Water Std. Max Conc. (mg/L)	Max Spray Field Influent (mg/L)	Treatment Plant Removal Efficiency %	Drinking Water (mg/L)	Plant Inhibition (mg/L)	Most Restrictive	Average Domestic Pollutant Loading (mg/L)	Maximum Allowable Industrial Discharge (mg/L)	Categorical Bat - Metal Finishing 40-433.16 Mo. Avg. mg/L	2023 Tech Derived Limits (mg/L)
Antimony	0.006	0.024	_(8)	0.024	-	0.024	<0.0100	0.07	-	0.08 ⁽⁹⁾
Arsenic	0.01 ⁽²⁾	0.04	_(8)	0.0727	0.1	0.0727	<0.0100	0.26	-	0.249 ⁽⁹⁾
Beryllium	0.004	0.016	_(8)	0.016	-	0.016	<0.0100	0.03	-	0.054 ⁽⁹⁾
Cadmium	0.005	0.02	_(8)	0.0606	1.0	0.0606	<0.0020	0.24	0.07	0.202 ⁽⁹⁾
Chromium	0.1	0.4	18.8	2.2222	1.0	1.0	<0.0050	4.02	1.71	3.59 ⁽⁹⁾
Copper	1.0	4.0	89.7	28.5714	1.0	1.0	0.0397	3.91	2.07	3.81
Cyanide	0.2	0.8	_(8)	2.5806	0.1	0.1	0.0070	0.38	0.65	0.148 ⁽⁹⁾
Lead	0.015	0.06	_(8)	0.1538	1.0	0.1538	<0.0060	0.60	0.43	0.411 ⁽⁹⁾
Mercury	0.002	0.008	61.1	0.02	0.1	0.02	<0.00020	0.08	-	0.068 ⁽⁹⁾
Nickel	0.1	0.4	9.2	0.6897	1.0	0.6897	0.0111	2.75	2.38	2.41 ⁽⁹⁾
Selenium	0.05	0.2	_(8)	0.4	-	0.4	<0.0100	1.58	-	1.41 ⁽⁹⁾
Silver	0.1	0.4	_(8)	1.6	0.25	0.25	<0.0095	0.98	0.24	0.87 ⁽⁹⁾
Thallium	0.002	0.4	_(8)	0.008	-	0.008	<0.0200	0.03	-	0.028 ⁽⁹⁾
Zinc	5.0	20	72.7	95.2381	0.3	0.3	0.183	0.66	1.48	0.95

(1) Rules of Georgia Department of Natural Resources, EPD, Chapter 39-3-5-.18, Primary Maximum Contaminant Levels for Drinking Water
(2) The enforcement date for the 0.01 mg/l is January 23, 2006

(3) Estimated 75% removal of inorganic contaminants in land application process. 2001 local limit evaluation, City of Carrollton.

(4) Priority Pollutant Removal Efficiencies Through Activated Sludge Treatment, Appendix R-2, Median, EPA Local Limits Development Guidance Appendices, July 2004

(5) Zero percent removal efficiency assumed as worst case. 2001 local limit evaluation, City of Carrollton

(6) Literature Inhibition Values, Appendix G-1, Local Limits Development Guidance Appendices, July 2004

(7) Carrollton drinking water concentrations are below the detection shown as worst case.

(8) Unable to calculate due to analysis under detection limit

(9) 2023 analysis results are below current local limits and below detection limit. 2019 Limits assumed.

Table 5

CITY OF CARROLLTON INDUSTRIAL DISCHARGE LIMITS

Pollutant	2019 Tech. Limits, mg/L	2023 Derived Limits, mg/L	Proposed 2023 Ordinance Limits, mg/L	Categorical BAT-Metal Finishing 40-433.16 Mo. Ave mg/L	Categorical BAT-Metal Finishing 40-433.16 Max 1 day mg/L
Antimony	0.08	0.07	0.08	-	-
Arsenic	0.249	0.263	0.249	-	-
Beryllium	0.054	0.034	0.054	-	-
Cadmium	0.202	0.238	0.202	0.07	0.11
Chromium	3.59	4.02	3.59	1.71	2.77
Copper	3.81	3.91	3.64	2.07	3.38
Cyanide	0.148	0.382	0.148	0.65	1.2
Lead	0.411	0.602	0.411	0.43	0.69
Mercury	0.068	0.080	0.068	-	-
Nickel	2.41	2.75	2.41	2.38	3.98
Selenium	1.41	1.58	1.41	-	-
Silver	0.87	0.98	0.87	0.24	0.43
Thallium	0.028	0.03	0.028	-	-
Zinc	0.95	0.66	0.485	1.48	2.61
BOD ₅	250	250	250	-	-
COD	500	500	500	-	-
TSS	250	250	250	-	-
Oil & Grease	100	100	100	-	-
pH	5.5—9.5	5.5-9.5	5.5—9.5	-	-