

City of Phoenix, AZ
Industrial Pretreatment Annual Report
Supplemental Information
2023



City of Phoenix
WATER SERVICES DEPARTMENT
ENVIRONMENTAL SERVICES DIVISION
Quality Reliability Value

February 27, 2024

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Pretreatment Coordinator
NPDES Permits Office (WTR-2-3)
US EPA, Region 9
75 Hawthorne Street
San Francisco, CA 94105
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To whom it may concern,

Re: **AZPDES Permit AZ0020559 – 23rd Avenue Wastewater Treatment Plant**
NPDES Permit AZ0020524 – 91st Avenue Wastewater Treatment Plant
Industrial Pretreatment Programs Annual Report
EPA Supplemental Information Submittal

Enclosed is requested supplemental information as part of the new reporting format for the City of Phoenix Industrial Pretreatment (IPP) Annual Report. This report covers both 23rd Avenue and 91st Avenue Wastewater Treatment Plants for the reporting period beginning January 1, 2023, and ending December 31, 2023. This includes information required by the National Pollutant Discharge Elimination System Permit, effective May 1, 2023; and the Arizona Pollutant Discharge Elimination System Permits, effective August 5, 2019. In addition, included in separate attachments are the City of Phoenix, Arizona Department of Environmental Quality, IPP Annual Report submittal and Certification Statement, as well as all Sub-Regional Operating Group (SROG) ADEQ Annual Report submittals.

Sincerely,

Jesse Flores
Principal Engineering Technician

Enclosures:
ADEQ Annual Report (Excel Spreadsheet)
SROG City IPP Annual Reports

c:
Milton Sanchez
Chelsey Mc Cluskey
Christine Nunez
Jennifer Calles

Summary of Priority Pollutant Results

23rd Avenue Wastewater Treatment Plant
91st Avenue Wastewater Treatment Plant

Part III Section F.4.a. of the 91st Avenue WWTP NPDES Permit and Part V Section A.4.b. of the 23rd Avenue WWTP AZPDES Permit require the following to be included within this annual report:

A summary of analytical results from representative, flow proportioned, 24-hour composite sampling of the POTW's influent and effluent for those pollutants identified under CWA section 307(a) which are known or suspected to be discharged by nondomestic users. This will consist of an annual full priority pollutant scan, with quarterly samples analyzed only for those pollutants detected in the full scan. Influent or effluent monitoring data shall be provided for nonpriority pollutants which the Cities believe may be causing or contributing to Interferences or Pass Through. All sampling and analysis required under this paragraph must be performed using the test methods specified under 40 CFR 136. Sampling and analysis for asbestos is not required. Sludge sampling and analyses are covered elsewhere in this permit.

As required, a summary of analytical results for influent, effluent, and biosolids samples collected from the 23rd and 91st Avenue Wastewater Treatment Plants are presented in the following pages.

23rd Ave. Wastewater Treatment Plant

	Number of Observations	Number of Non-Detects	¹ Average	Maximum	Units
1,1,1-Trichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,1,2,2-Tetrachloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,1,2-Trichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,1-Dichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,1-Dichloroethylene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,2,4-Trichlorobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichlorobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichloropropane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L

Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,2-Diphenylhydrazine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,2-Trans-dichloroethylene (Trans-1,2-Dichloroethene)					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,3-Dichlorobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt
1,3-Dichloropropylene (cis/trans-1,3-Dichloropropene)					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
1,4-Dichlorobenzene					
Influent	12	12	5.2	0.98	µg/L
Effluent	5	5	0.22	0.33	µg/L
Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt
2,3,7,8-TCDD (Dioxin)					
Influent	1	1	All Non-Detect	-	pg/L
Effluent	1	1	All Non-Detect	-	pg/L
Biosolids	1	1	All Non-Detect	-	ng/kg Dry Wt
2,4,6-Trichlorophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
2,4-Dichlorophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
2,4-Dimethylphenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2,4-Dinitrophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2,4-Dinitrotoluene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2,6-Dinitrotoluene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2-Chloroethyl vinyl ethers

Influent	1	1	All Non-Detect	-	µg/L
Effluent	2	2	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2-Chloronaphthalene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2-Chlorophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

2-Nitrophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

3,3-Dichlorobenzidine

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

4,4-DDD

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

4,4-DDE

Influent	12	12	All Non-Detect	-	µg/L
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Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
4,4-DDT					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
4,6-Dinitro-o-cresol (2-Methyl-4,6-dinitrophenol)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
4-Bromophenyl phenyl ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
4-Chlorophenyl phenyl ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
4-Nitrophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Acenaphthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Acenaphthylene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Acrolein					
Influent	1	1	All Non-Detect	-	µg/L
Effluent	2	2	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Acrylonitrile					
Influent	1	1	All Non-Detect	-	µg/L
Effluent	2	2	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Aldrin						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Alpha-BHC						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Alpha-endosulfan (Endosulfan I)						
Influent	12	10	0.009	0.05		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Anthracene						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Antimony						
Influent	12	11	0.00077	0.0013		mg/L
Effluent	4	4	All Non-Detect	-		mg/L
Biosolids	6	6	All Non-Detect	-		mg/kg Dry Wt
Arsenic						
Influent	12	8	0.0015	0.0031		mg/L
Effluent	4	4	All Non-Detect	-		mg/L
Biosolids	6	0	7.5	9.3		mg/kg Dry Wt
Benzene						
Influent	4	4	All Non-Detect	-		µg/L
Effluent	5	5	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Benzidine						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Benzo(a) anthracene						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	4	4	All Non-Detect	-		µg/L
Biosolids	1	1	All Non-Detect	-		mg/kg Dry Wt
Benzo(a)pyrene						

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Benzo(b) fluoranthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Benzo(ghi) perylene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Benzo(k) fluoranthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Beryllium					
Influent	12	11	0.00011	0.0002	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt
Beta-BHC					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Beta-endosulfan (Endosulfan II)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroethoxy) methane					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroethyl) ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroisopropyl) ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L

Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Bis(2-ethylhexyl) phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	3	2.1	2.4	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Boron (Non Priority Pollutant studied for Local Limits Monitoring)					
Influent	12	0	0.333	0.390	mg/L
Effluent	4	0	0.346	0.374	mg/L
Biosolids	0	0	N/A	-	mg/kg Dry Wt
Bromoform					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	4	0.34	0.67	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Bromomethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Butyl benzyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	3	1.6	2.6	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Cadmium					
Influent	12	12	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt
Carbon tetrachloride					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Chlordane					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Chlorobenzene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Bromodichloromethane

Influent	4	0	0.7	0.88	µg/L
Effluent	4	0	11	26	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Chloroethane

Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Chloroform

Influent	4	0	6.5	13	µg/L
Effluent	5	0	19	36	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Chromium

Influent	12	0	0.0088	0.017	mg/L
Effluent	4	1	0.004	0.014	mg/L
Biosolids	6	0	75	110.0	mg/kg Dry Wt

Chrysene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Copper

Influent	12	0	0.014	0.268	mg/L
Effluent	4	0	0.005	0.007	mg/L
Biosolids	6	0	892	1040	mg/kg Dry Wt

Cyanide, Total (Cyanide samples are discrete samples)

Influent	1	1	All Non-Detect	-	mg/L
Effluent	1	1	All Non-Detect	-	mg/L
Biosolids	6	5	0.2115	0.446	mg/kg Dry Wt

Delta-BHC

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Dibenzo(a,h) anthracene

Influent	12	11	16.1	54.3	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Dibromochloromethane

Influent	4	1	0.44	0.69	µg/L
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Effluent	5	0	3.7	10	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Dieldrin					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Diethyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Dimethyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Di-n-butyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Di-n-octyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Endosulfan sulfate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Endrin					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Endrin aldehyde					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Ethylbenzene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Fluoranthene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Fluorene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Fluoride (Non Priority Pollutant studied for Local Limits Monitoring)

Influent	11	0	0.90	1.0	mg/L
Effluent	1	0	0.9	0.9	mg/L
Biosolids	0	0	-	-	mg/kg Dry Wt

Gamma-BHC

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Heptachlor

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Heptachlor epoxide

Influent	12	12	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Hexachlorobenzene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Hexachlorobutadiene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt

Hexachlorocyclopentadiene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Hexachloroethane

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Indeno (1,2,3-cd) pyrene					
Influent	12	11	20.6	48.5	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Isophorone					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Lead					
Influent	12	12	0.0038	0.0101	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt
Mercury					
Influent	12	9	0.000095	0.000300	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	0	1.11	1.7	mg/kg Dry Wt
Methyl bromide (Bromomethane)					
Influent	4	4	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Methyl chloride (Chloromethane)					
Influent	4	4	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Methylene chloride (Dichloromethane)					
Influent	4	2	3.3	8.6	mg/L
Effluent	5	4	2.2	9.2	mg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Molybdenum (Non Priority Pollutant studied for Local Limits Monitoring)					
Influent	12	0	0.0083	0.0174	mg/L
Effluent	4	0	0.0046	0.0058	mg/L
Biosolids	6	0	25	29.3	mg/kg Dry Wt
Naphthalene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L

Biosolids	2	2	All Non-Detect	-	mg/kg Dry Wt
Nickel					
Influent	12	0	0.010	0.017	mg/L
Effluent	4	0	0.0055	0.010	mg/L
Biosolids	6	0	40.7	44.1	mg/kg Dry Wt
Nitrobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodimethylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodi-n-propylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodiphenylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Parachlorometa cresol (4-Chloro-3-methylphenol)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
PCB-1016 (Arochlor 1016)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
PCB-1221 (Arochlor 1221)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
PCB-1232 (Arochlor 1232)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

PCB-1242 (Arochlor 1242)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

PCB-1248 (Arochlor 1248)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

PCB-1254 (Arochlor 1254)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

PCB-1260 (Arochlor 1260)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Pentachlorophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Phenanthrene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Phenol

Influent	12	2	27.9	35.7	µg/L
Effluent	4	2	1.5	2.8	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Pyrene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt

Selenium

Influent	12	11	0.0011	0.0025	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	0	6.7	8.8	mg/kg Dry Wt

Silver

Influent	12	11	0.00051	0.0008	mg/L
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Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt
Tetrachloroethylene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Thallium					
Influent	12	12	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt
Toluene					
Influent	4	0	3.4	11	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Toxaphene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Trichloroethylene (Trichloroethene)					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	5	5	All Non-Detect	-	µg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Vinyl chloride					
Influent	4	4	All Non-Detect	-	mg/L
Effluent	5	5	All Non-Detect	-	mg/L
Biosolids	1	1	All Non-Detect	-	mg/kg Dry Wt
Zinc					
Influent	12	0	0.169	0.392	mg/L
Effluent	4	0	0.003	0.042	mg/L
Biosolids	6	0	1370	1510	mg/kg Dry Wt

¹Average calculations include non-detect values. Non-detect values were multiplied by 0.5. Due to varying

91st Ave. Wastewater Treatment Plant

91st Ave. WWTP

	Number of Observations	Number of Non-Detects	¹ Average	Maximum	Units
1,1,1-Trichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,1,2,2-Tetrachloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,1,2-Trichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,1-Dichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,1-Dichloroethylene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,2,4-Trichlorobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichlorobenzene					
Influent	14	14	All Non-Detect	-	µg/L
Effluent	13	13	All Non-Detect	-	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichloroethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
1,2-Dichloropropane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

1,2-Diphenylhydrazine

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

1,2-Trans-dichloroethylene (Trans-1,2-Dichloroethene)

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

1,3-Dichlorobenzene

Influent	14	14	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt

1,3-Dichloropropylene (trans/cis-1,3-Dichloropropene)

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

1,4-Dichlorobenzene

Influent	14	14	All Non-Detect	-	µg/L
Effluent	14	13	0.49	0.16	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt

2,3,7,8-TCDD (Dioxin)

Influent	1	1	All Non-Detect	-	pg/L
Effluent	2	2	All Non-Detect	-	pg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

2,4,6-Trichlorophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

2,4-Dichlorophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

2,4-Dimethylphenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

2,4-Dinitrophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2,4-Dinitrotoluene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2,6-Dinitrotoluene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2-Chloroethyl vinyl ethers					
Influent	1	1	All Non-Detect	-	µg/L
Effluent	1	1	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2-Chloronaphthalene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2-Chlorophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
2-Nitrophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
3,3-Dichlorobenzidine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4,4-DDD					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4,4-DDE					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L

Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4,4-DDT					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4,6-Dinitro-o-cresol (2-Methyl-4,6-dinitrophenol)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4-Bromophenyl phenyl ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4-Chlorophenyl phenyl ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
4-Nitrophenol					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Acenaphthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Acenaphthylene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Acrolein					
Influent	1	1	All Non-Detect	-	µg/L
Effluent	1	1	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Acrylonitrile					
Influent	1	1	All Non-Detect	-	µg/L
Effluent	1	1	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Aldrin						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	13	13	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Alpha-BHC						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	12	12	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Alpha-endosulfan (Endosulfan I)						
Influent	12	11	0.0075	0.054		µg/L
Effluent	12	12	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Anthracene						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	12	12	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Antimony						
Influent	12	11	0.00077	0.0013		mg/L
Effluent	5	5	All Non-Detect	-		mg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Arsenic						
Influent	12	3	0.0020	0.0034		mg/L
Effluent	5	2	0.0018	0.0024		mg/L
Biosolids	12	0	6.8	7.9		mg/kg Dry Wt
Benzene						
Influent	4	4	All Non-Detect	-		µg/L
Effluent	6	6	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Benzidine						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	12	12	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Benzo(a) anthracene						
Influent	12	12	All Non-Detect	-		µg/L
Effluent	12	12	All Non-Detect	-		µg/L
Biosolids	4	4	All Non-Detect	-		mg/kg Dry Wt
Benzo(a)pyrene						
Influent	12	12	All Non-Detect	-		µg/L

Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Benzo(b) fluoranthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Benzo(ghi) perylene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Benzo(k) fluoranthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Beryllium					
Influent	12	11	0.00012	0.0004	mg/L
Effluent	5	5	All Non-Detect	-	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Beta-BHC					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Beta-endosulfan (Endosulfan II)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroethoxy) methane					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroethyl) ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Bis(2-chloroisopropyl) ether					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	6	6	All Non-Detect	-	mg/kg Dry Wt

Bis(2-ethylhexyl) phthalate

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	11	2.2	3.2	µg/L
Biosolids	4	2	5.2	9.6	mg/kg Dry Wt

Boron (Non Priority Pollutant studied for Local Limits Monitoring)

Influent	12	0	0.384	0.439	mg/L
Effluent	12	0	0.417	0.481	mg/L
Biosolids	0	0	-	-	mg/kg Dry Wt

Bromodichloromethane

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	0	0.58	0.97	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Bromoform

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Butyl benzyl phthalate

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	10	2	2.8	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Cadmium

Influent	12	12	All Non-Detect	-	mg/L
Effluent	12	12	All Non-Detect	-	mg/L
Biosolids	12	12	All Non-Detect	-	mg/kg Dry Wt

Carbon tetrachloride

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Chlordane

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Chlorobenzene

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Chloroethane

Influent	4	4	All Non-Detect	-	µg/L
Effluent	4	4	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Chloroform					
Influent	4	0	3.8	4.4	µg/L
Effluent	7	0	2.1	2.8	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Chromium					
Influent	12	0	0.0066	0.0164	mg/L
Effluent	5	4	0.0009	0.0016	mg/L
Biosolids	12	0	55.1	57.7	mg/kg Dry Wt
Chrysene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Copper					
Influent	12	0	0.095	0.256	mg/L
Effluent	5	1	0.002	0.004	mg/L
Biosolids	12	0	617	692	mg/kg Dry Wt
Cyanide, Total (Cyanide samples are discrete samples.)					
Influent	12	9	0.0038	0.003	mg/L
Effluent	12	10	0.0071	0.012	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Delta-BHC					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Dibenzo(a,h) anthracene					
Influent	12	11	17	52.3	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Dibromochloromethane					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	5	0.17	0.19	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Dieldrin					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	13	13	All Non-Detect	-	µg/L

Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Diethyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Dimethyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Di-n-butyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Di-n-octyl phthalate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Endosulfan sulfate					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Endrin					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	15	15	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Endrin aldehyde					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Ethylbenzene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Fluoranthene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	3	3.9	5.9	mg/kg Dry Wt

Fluorene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Fluoride (Non Priority Pollutant studied for Local Limits Monitoring)

Influent	11	0	1.3	1.5	mg/L
Effluent	2	0	1.0	1.0	mg/L
Biosolids	0	0	-	-	mg/kg Dry Wt

Gamma-BHC

Influent	12	12	All Non-Detect	-	µg/L
Effluent	15	15	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Heptachlor

Influent	12	12	All Non-Detect	-	µg/L
Effluent	15	15	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Heptachlor epoxide

Influent	12	12	All Non-Detect	-	µg/L
Effluent	16	16	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Hexachlorobenzene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Hexachlorobutadiene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt

Hexachlorocyclopentadiene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Hexachloroethane

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Indeno (1,2,3-cd) pyrene

Influent	12	11	22.5	47.1	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Isophorone					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Lead					
Influent	12	10	0.0013	0.0035	mg/L
Effluent	12	12	All Non-Detect	-	mg/L
Biosolids	12	12	All Non-Detect	-	mg/kg Dry Wt
Mercury					
Influent	12	12	All Non-Detect	-	mg/L
Effluent	12	1	1	1.7	ng/L
Biosolids	12	0	0.56	0.8	mg/kg Dry Wt
Methyl bromide (Bromomethane)					
Influent	4	4	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Methyl chloride (Chloromethane)					
Influent	4	4	All Non-Detect	-	mg/L
Effluent	4	4	All Non-Detect	-	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Methylene chloride (Dichloromethane)					
Influent	4	3	8.8	22	mg/L
Effluent	6	3	1.8	4.6	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Molybdenum (Non Priority Pollutant studied for Local Limits Monitoring)					
Influent	12	0	0.0110	0.0334	mg/L
Effluent	5	0	0.0038	0.0052	mg/L
Biosolids	12	8	14.5	23.8	mg/kg Dry Wt
Naphthalene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	8	8	All Non-Detect	-	mg/kg Dry Wt
Nickel					
Influent	12	1	0.0088	0.017	mg/L
Effluent	5	0	0.004	0.005	mg/L

Biosolids	12	11	22.8	32.3	mg/kg Dry Wt
Nitrobenzene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodimethylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodi-n-propylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
N-nitrosodiphenylamine					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Parachlorometa cresol (4-Chloro-3-methylphenol)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
PCB-1016 (Arochlor 1016)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
PCB-1221 (Arochlor 1221)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
PCB-1232 (Arochlor 1232)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
PCB-1242 (Arochlor 1242)					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

PCB-1248 (Arochlor 1248)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

PCB-1254 (Arochlor 1254)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

PCB-1260 (Arochlor 1260)

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Pentachlorophenol

Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Phenanthrene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	3	7.4	20	mg/kg Dry Wt

Phenol

Influent	12	1	44.8	68.1	µg/L
Effluent	12	9	1.2	2.6	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Pyrene

Influent	12	12	All Non-Detect	-	µg/L
Effluent	12	12	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt

Selenium

Influent	12	10	0.0012	0.0018	mg/L
Effluent	12	12	All Non-Detect	-	mg/L
Biosolids	12	0	7.3	8.5	mg/kg Dry Wt

Silver

Influent	12	11	0.00051	0.00086	mg/L
Effluent	5	4	0.00048	0.00079	mg/L
Biosolids	12	12	All Non-Detect	-	mg/kg Dry Wt

Tetrachloroethylene

Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Thallium					
Influent	12	12	All Non-Detect	-	mg/L
Effluent	5	5	All Non-Detect	-	mg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Toluene					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Toxaphene					
Influent	12	12	All Non-Detect	-	µg/L
Effluent	14	14	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Trichloroethylene (Trichloroethene)					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Vinyl chloride					
Influent	4	4	All Non-Detect	-	µg/L
Effluent	6	6	All Non-Detect	-	µg/L
Biosolids	4	4	All Non-Detect	-	mg/kg Dry Wt
Zinc					
Influent	12	0	0.136	0.212	mg/L
Effluent	5	0	0.015	0.025	mg/L
Biosolids	12	0	860	949	mg/kg Dry Wt

¹Average calculations include non-detect values. Non-detect values were multiplied by 0.5. Due to varying laboratory reporting levels, the average can exceed the maximum in some cases. No average was calculated when all results were non-detects.

Upset, Interference, and Pass Through

23rd Avenue Wastewater Treatment Plant AZPDES Permit No. AZ0020559
91st Avenue Wastewater Treatment Plant NPDES Permit No. AZ0020524

The following is a discussion of Upset, Interference, or Pass-Through incidents, if any, which the Cities know or suspect, were caused by nondomestic users of the POTW system during the year ending December 31, 2023. If any incidents occurred, the reasons why, the corrective actions taken, and the nondomestic user(s) or industry sector(s) responsible are provided.

Additionally, a review of the applicable pollutant limits to determine whether any additional limitations, or changes to existing requirements may be necessary to prevent Interference, Pass Through or noncompliance with sludge disposal requirements is provided.

This information is required under Part III Section D.4.b. of the NPDES Permit and Part V Section B.4.b. of the AZPDES Permit.

Analytical results of effluent samples obtained during 2023 at the 23rd Avenue and 91st Avenue Wastewater Treatment Plants (WWTP) were compared against the federal definitions of Upset, Interference, and Pass Through.

The definition for **Upset** is found at 40 CFR 122.41(n):

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

The definition for **Interference** is found at 40 CFR 403.3(i):

The term "interference" means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

- 1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and*
- 2) Therefore is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation) or of the prevention of sewage sludge use or disposal in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): Section 405 of the Clean Water Act, the Solid Waste Disposal Act (SWDA) (including Title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA), and including State regulations contained in any State sludge management plan prepared pursuant to Subtitle D or the SWDA), the Clean Air Act, the Toxic Substances Control Act, and the Marine Protection, Research and Sanctuaries Act.*

The definition for **Pass-Through** is found at 40 CFR 403.3(n):

The term "Pass-Through" means a Discharge which exits the POTW into waters of the United States in quantities or concentrations which, alone or in conjunction with a discharge or discharges from other sources, is a cause of a violation of any requirement of the POTW's NPDES permit (including an increase in the magnitude or duration of a violation).

23rd Avenue WWTP

Based upon these definitions, there were no violations due to incidents of upset, interference, or pass-through that were attributable to nondomestic users of the POTW at the 23rd Avenue WWTP during 2023.

There were three instances of pink colored water flowing into the plant influent, that occurred in December 2023 and January 2024. One instance in January 2024 caused a decrease in dissolved oxygen at the plant aeration basins. The other two instances did not disrupt the dissolved oxygen in the aeration basins. Wastewater Collections Staff assisted in the investigation of the pink influent by tracing the pink color through the City of Phoenix Collections System which led to a business that specializes in recycling of a variety of plastic and aluminum containers that can contain liquids with dyes in them. The Industrial Pretreatment Program (IPP) staff performed an on-site inspection and issued a Cease-and-Desist Notice of Violation (NOV) and instructed the facility owners to no longer discharge liquids with dyes into the City Collection System. The business is in the beginning stages of the permitting process.

There was one Aquifer Protection Permit (APP) exceedance observed during 2023 and provided here for information purposes only. In October, an exceedance of the Dichloromethane parameter was observed at the Effluent Junction Box, Outfall 004. This resulted in an APP discharge limit exceedance. The City is conducting an ongoing investigation for this exceedance through monitoring upstream of the plant and facility inspections of possible polluters.

91st Avenue WWTP

Based upon these definitions, there were no violations due to incidents of upset, interference, or pass-through that were potentially attributable to nondomestic users of the POTW at the 91st Avenue Wastewater Treatment Plant (WWTP) during 2023.

There were four Aquifer Protection Permit (APP) exceedances observed during 2023 and are provided here for information purposes only. In March and November, an exceedance of the APP discharge limit for the E. coli parameter occurred at the plant re-use pump stations. This was caused by an internal operational problem within the plant process, which was corrected on the same day.

In January and November, an exceedance of the APP discharge limit for the Gross Beta Parameter was observed at the influent to the Tres Rios Wetlands, FRW-1. The Gross Beta investigation is currently ongoing. During the investigation, the Gross Beta result was attributed to naturally occurring nuclides from natural sources and short-lived nuclides used in nuclear medicine that are common in wastewater from patients undergoing nuclear diagnosis. The City has continued to actively monitor and investigate upstream of the 91st Avenue Wastewater Treatment Plant in the collection system, at Phoenix Industrial Facilities, and the Metering

Stations that are shared with the Sub Regional Operating Group (SROG) partners. The SROG partners have also completed investigations in their respective cities for any facilities with the potential to discharge gross beta to the sewer. The City is considering additional resources to continue the investigation to help determine the gross beta source(s), including hiring an environmental consultant to assist with further investigation.

Review of Local Limits

In 2002, the City retained a consultant to evaluate local limits. The consultant identified the pollutants of concern and the SROG cities participated in a local limits data collection sampling event in December 2002. The data was evaluated, and revised local limits were established. BMP development and implementation was recommended for five pollutants: beryllium, fluoride, molybdenum, selenium, and di(2-ethylhexyl) phthalate (DEHP). Each of the SROG Cities had their revised local limits approved, incorporated into the City ordinance, and accepted by City Council. The local limits changes and revised City ordinances were approved by ADEQ on December 10, 2004. The revised limits and city ordinance changes were effective January 1, 2005. Public meetings with target industries were held in March 2005 to communicate to industries and to obtain commitment from them to implement the BMPs in accordance with the May 2004 SROG Phase II Local Limits Final Report and the June 2005 SROG BMPs Technical Memorandum prepared for the SROG cities by Malcolm Pirnie an engineering and consulting firm.

Permits Renewed and Amended

Since 2002 when local limits were last developed, the following permits have been renewed or amended:

- 91st Avenue WWTP NPDES permit renewal became effective May 23, 2023, and is effective until April 30, 2028.
- 23rd Avenue WWTP AZPDES permit became effective August 5, 2019, and is effective until August 4, 2024.
- 91st Avenue WWTP Aquifer Protection Permit (APP) became effective on October 4, 2002, and was last amended on October 17, 2023.
- 23rd Avenue WWTP APP became effective on April 29, 1999, and was last amended on July 16, 2020.

Sub-Regional Operating Group,
City of Phoenix
Significant Non-Compliance
Industrial User List Published in
2023

THE ARIZONA REPUBLIC

PO Box 194, Phoenix, Arizona 85001-0194
Phone 1-602-444-7315 Fax 1-877-943-0443

STATE OF WISCONSIN }
COUNTY OF BROWN } SS.

AFFIDAVIT OF PUBLICATION

CITY OF PHOENIX
200 W WASHINGTON
PHOENIX, AZ 85003

I, being first duly sworn, upon oath deposes and says: That I am the legal clerk of the Arizona Republic, a newspaper of general circulation in the counties of Maricopa, Coconino, Pima and Pinal, in the State of Arizona, published weekly at Phoenix, Arizona, and that the copy hereto attached is a true copy of the advertisement published in the said paper on the dates indicated.

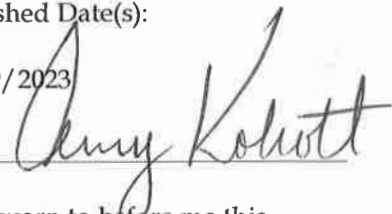
Publication: Arizona Republic

Ad number: GCI1026603

PO Field: LOG# 13351 - RE: Water Request - Official Advertising Request Form.xlsx

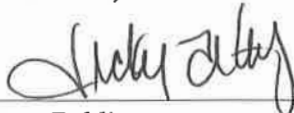
Published Date(s):

03/09/2023



Sworn to before me this

9th day of
March, 2023



Notary Public

My Commission Expires on

9/19/25

VICKY FELTY
Notary Public
State of Wisconsin

Industrial Users in Significant Noncompliance with Applicable Pretreatment Requirements in 2022

The Cities of Glendale, Mesa, Phoenix, Scottsdale, and Tempe, and the Town of Gilbert, Arizona are responsible for implementing and operating industrial wastewater control (pretreatment) programs in each of their communities. Each program is designed to protect the wastewater treatment plants (POTW), the safety of personnel operating the wastewater collection system, and the environment from adverse impacts that could occur when toxic wastes are discharged into a wastewater collection system. Each municipality issues wastewater discharge permits to Significant* Industrial Users (Users) in their communities and the Users are responsible for ensuring that they comply with respective local ordinances and federal regulations.

In accordance with the Federal Clean Water Act and the public participation requirements of 40 CFR Part 25 in the enforcement of the National Pretreatment Standards as defined by 40 CFR 403.8(f)(2) (viii), the Cities of Glendale, Mesa, Phoenix, Scottsdale, and Tempe, and the Town of Gilbert, Arizona are hereby publishing the following list of Users in Significant Noncompliance (SNC) with applicable pretreatment requirements. **This notice covers the period from January 1, 2022 through December 31, 2022.**

A Significant Industrial User, and in specific cases an Industrial User*, is in a state of SNC when violations meet one or more of the following:

- A. Chronic violations (CSNC) of wastewater discharge limits defined here as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter.
- B. Technical Review Criteria violations (TRCSNC), defined here as those in which thirty-three percent or more of all of the measurements taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC (TRC= 1.4 for BOD, TSS, fats, oil and grease; and 1.2 for all other pollutants except pH).
- C. Any other violation of a pretreatment effluent limit (daily maximum or long term average) that the POTW determines has caused alone or in combination with other discharges interference or pass through (including endangering the health of POTW personnel or the general public).
- D. Any discharge of a pollutant that has caused imminent endangerment of human health, welfare or to the environment or has resulted in the POTW's exercise of its emergency authority to halt or prevent such as discharge;
- E. Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in a permit or enforcement order for starting construction, completing construction, or attaining final compliance;
- F. Failure to provide within 30 (45*) days after the due date the required report such as a Baseline Monitoring Report, a 90 day compliance report, periodic self-monitoring reports, and reports on compliance with compliance schedules;
- G. Failure to accurately report noncompliance, or
- H. Any other violation or group of violations, which the POTW determines will adversely affect the operation or implementation of the local pretreatment program.

Public participation and cooperation are important to a successful industrial pretreatment program. If you have comments or witness a situation that you believe may involve an illegal discharge of pollutants or hazardous material into a municipality's sewer system, please immediately notify the appropriate municipality: Gilbert (480) 503-6411, Glendale (623) 930-4758, Mesa (480) 644-2131, Phoenix (602) 495-5926, Scottsdale (480) 391-5687, or Tempe (480) 350-2678.

Industrial User	Nature of Violation/Type of Pollutant	Date Of Last Non-Compliance	Has User Returned to Compliant Status as of 12/31/2022?	Number of Times Published	Nature of Enforcement Action(s)	Comments
Glendale No Users in SNC						
Mesa No Users in SNC						
Phoenix						
Liquid Environmental Solutions of Arizona, LLC 5159 West Van Buren Street Phoenix, Arizona 85043-3720	p-Cresol Monthly Average Chronic and Monthly Technical Review Criteria – 2nd Quarter	12/31/2022	No	4	Notices of Violation TISM SNC Notification Show Cause Proceeding Monetary Penalty	Two Show Cause Proceedings imposing monetary penalties took place during the 1st and 4th Quarters of 2022. Violations in addition to p- Cresol effluent include copper, selenium, zinc, n- Octadecane effluent and late reporting violations.
PMA Photometals of Arizona, Inc. dba PMA Industries of Arizona, Inc. 18008 North Black Canyon Highway Phoenix, Arizona 85063-1715	Copper Daily Maximum and Monthly Average Technical Review Criteria – 3rd Quarter	07/07/2022	Yes	1	Notices of Violation TISM SNC Notification	A Show Cause Proceeding imposing potential monetary penalties will take place during the 1st Quarter of 2023. Violations in addition to copper effluent include a nickel effluent violation.
APS BioGroup, Inc. 2235 South Central Avenue Phoenix, Arizona 85004-2909	Acetone Monthly Average Technical Review Criteria – 4th Quarter	08/07/2022	Yes	2	Notices of Violation TISM SNC Notification Show Cause Proceeding Monetary Penalty	A Show Cause Proceeding imposing monetary penalties took place on December 7, 2022. The Pretreatment Settlement Agreement incorporating monetary penalties is in the process of being executed.
Metal Finishing Solutions, Inc. 46 North 49th Avenue Phoenix, Arizona 85043-3825	Silver Daily Maximum and Monthly Average Technical Review Criteria – 4th Quarter	12/31/2022	No	1	Notices of Violation TISM SNC Notification Review Meeting	A Show Cause Proceeding imposing potential monetary penalties will take place during the 2nd or 3rd Quarter of 2023. Violations in addition to silver effluent include a mercury effluent, late reporting and failure to sample violations.
Global Healing Center 925 East Salter Drive Phoenix, Arizona 85024-5648	Zinc Daily Maximum Technical Review Criteria – 4th Quarter	11/07/2022	Yes	1	Notice of Violation TISM SNC Notification	A Show Cause Proceeding imposing potential monetary penalties will take place during the 3rd Quarter of 2023. Violations in addition to silver effluent include a mercury effluent, late reporting and failure to sample violations.
Scottsdale No Users in SNC						
Tempe						
Sun Orchard, LLC	Prohibited Substance/4,4, - DDE	April 6, 2022	Yes	2	Notice of Violation and Administrative Order SNC Notification	Tempe significantly increased monitoring and assessed two administrative fines in 2022 and has worked with Sun Orchard, LLC to achieve a return to identify a root cause and achieve a return to compliance.
Town of Gilbert No Users in SNC						

*Phoenix City Code Chapter 28 was amended on October 7, 2020 to incorporate the October 14, 2005 updates to 40 CFR Part 403, resulting in a change to the definition of SNC, including applicability and reporting criteria.

City of Phoenix
Expenditures and Program
Updates
2023

CITY OF PHOENIX

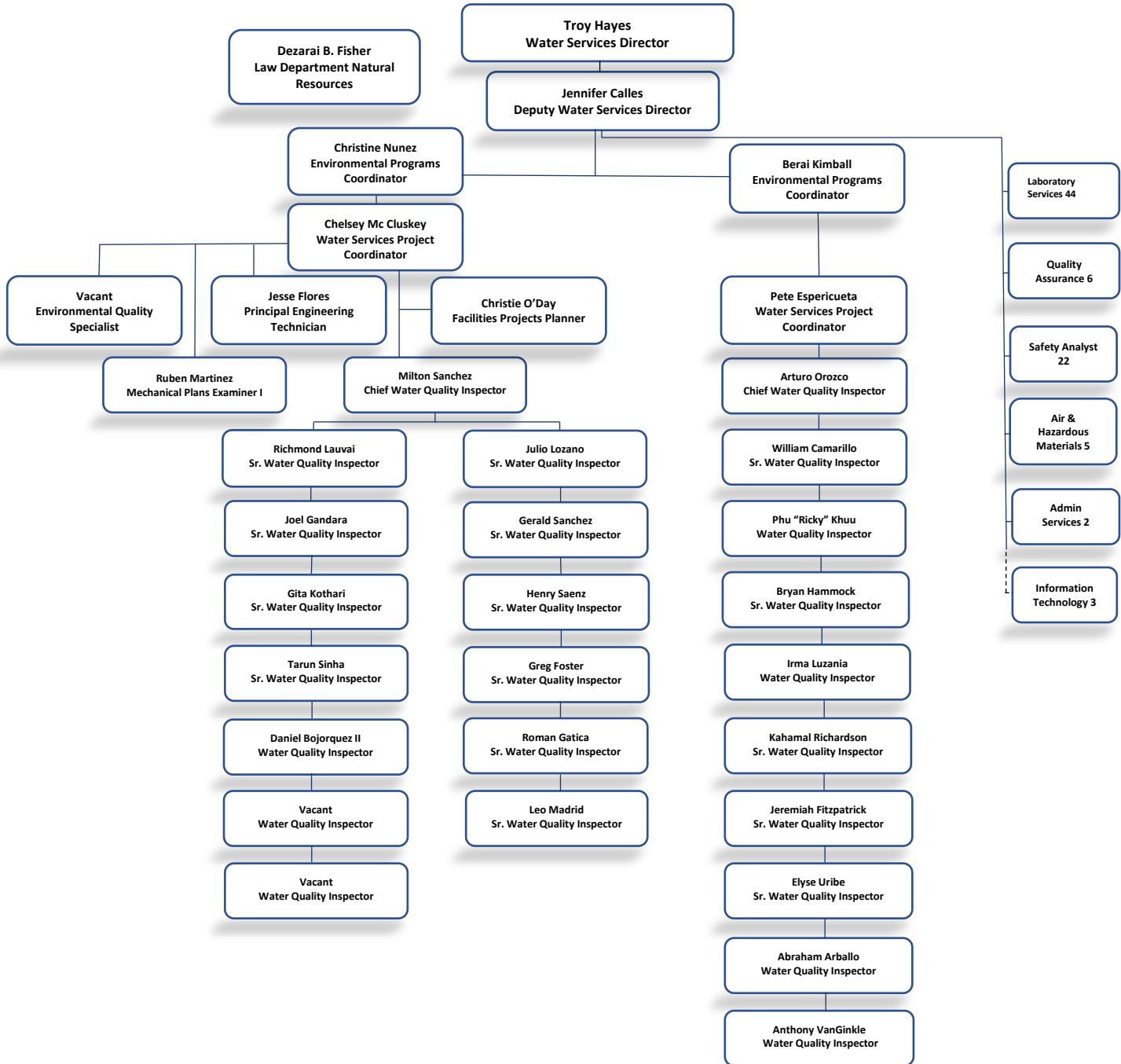
SUMMARY OF PRETREATMENT PROGRAM EXPENDITURES		
January 1, 2023 – December 31, 2023 – Total Pretreatment Expenditures \$ 4,454,532		
PRETREATMENT PROGRAM EXPENDITURES		
Personnel	\$	2,701,021
Operations & Maintenance	\$	320,724
Laboratory	\$	1,341,290
Equipment	\$	-
Vehicles	\$	91,497
PRETREATMENT PROGRAM EQUIPMENT INVENTORY		
<u>Equipment Name</u>	<u>Purchased 2023</u>	<u>Total 2023</u>
Photo Ionization Detector	0	2
Flow Meters	0	26
Auto Samplers	3	34
Turbidimeters	0	3
pH/DO/Conductivity Meters	0	6
Chlorine Colorimeters	0	3
Air Movers	4	4
Confined Space Harnesses	0	7
Air/Gas Detectors	9	9
Cameras	0	7
Night Vision Cameras	0	1
Pole Cameras/GoPro	0	2
CCTV Sewer Camera	0	2
Computer Monitors (CH13)(C)(L0)	31	58
Computers (C9)(Ch1)(L0)	1	9
Printers	0	3
Tablets (L6)(Ch8)(C5)	0	23
PRETREATMENT PROGRAM VEHICLE INVENTORY		
<u>Equipment Name</u>	<u>Purchased 2023</u>	<u>Total 2023</u>
Sampling Passenger Vans	0	1
Sampling Pickups	1	1
Inspector Pickups	1	7
Inspector SUVs	1	1
Inspector Sedans	0	1
Sampling Vans	0	5
Vehicle Pool Sedans	0	5 (Pool) ¹
¹ Vehicle pool sedans (which are may occasionally be used for inspections of industrial facilities) are shared by all staff located on the 23rd Avenue WWTP.		

PRETREATMENT PROGRAM PERSONNEL

<u>Title</u>	<u>FTEs 2022</u>	<u>FTEs 2023</u>
Deputy Water Services Director	1.0 ³	1.0 ³
Environmental Programs Coordinator	0.5 ³	0.5 ³
Water Services Project Coordinator	0.5	1.5
Assistant City Attorney IV	0.25 ³	0.25 ³
Mechanical Plans Examiner I	1.0	1.0
Environmental Quality Specialist	0.5	0.5
Water Services Projects Planner	0	1.0
Chief Water Quality Inspectors	3.0	2.0
Senior Water Quality Inspectors	15.0	16.0
Water Quality Inspectors	5.0	3.0
Inspector Vacancies	2.0	2.0
Information Technology Application Programmer III	0.25 ³	0.25 ³
Information Technology Application Programmer I	0.5 ³	0.5 ³
Secretary II	0.25 ³	0.25 ³

³ These positions dedicate time to other Water Department functions.

CITY OF PHOENIX WATER SERVICES DEPARTMENT
 ENVIRONMENTAL SERVICES DIVISION
 POLLUTION PREVENTION & PERMITTING



Pretreatment Program Changes

The City of Phoenix Industrial Pretreatment Program (IPP) submitted a Cross-Media Electronic Reporting Rule (CROMERR) application in December 2021 to the EPA. On August 16, 2023, the City of Phoenix IPP received approval from the EPA confirming that the City of Phoenix GovOnline system is compliant with CROMERR. Furthermore, the City of Phoenix IPP notified ADEQ of the intent to use a Certified Off the Shelf solution on August 24, 2021 and received approval of the proposed modification on February 25, 2022. The City of Phoenix IPP intends to receive EPA-authorized program requirement submissions electronically from regulated facilities in lieu of paper submissions.

In addition, the Program is in the process of reorganizing its administrative structure and/or staffing which will require notification to ADEQ and EPA in 2024 of the planned modifications to the pretreatment program, whether substantial or non-substantial. The Commercial Inspections/FOG and Industrial Pretreatment Program sections will be incorporated into a new overhead Pretreatment Program structure to allow for additional support and oversight. In addition, several positions are in the process of being modified or added to reflect higher level skillsets, encompass additional duties or distribute workload appropriately.

Pretreatment Program Activities

The Environmental Services Division within the Water Services Department is responsible for implementing the Program for the City of Phoenix. The Program continues to be organized into three sections: Wastewater Monitoring, Commercial Inspections/FOG, and the Industrial Pretreatment Program. An organizational chart is included in this report and appears on a page just after the Summary of Pretreatment Program Expenditures.

▪ **Wastewater Monitoring Section**

The Wastewater Monitoring Section collects wastewater, groundwater, and biosolids samples to support the following:

- NPDES and AZPDES Permit compliance for the City of Phoenix wastewater treatment plants
- Aquifer Protection Permit compliance for the City of Phoenix wastewater treatment plants and recharge facilities
- Industrial user permit compliance determination and enforcement
- Industrial user sewer rate recalculation (sewer billings)
- SROG Cities' sewer charges and compliance determination
- Special projects, studies, and emergency response.

Sampling crews frequently conduct sampling operations in hazardous locations such as confined spaces, streets where traffic conditions must be considered, and in the Salt and Gila Rivers. Sophisticated, computerized sampling and measuring equipment in addition to manual sample collection techniques are used to collect samples, which are then analyzed by the City's Water Services Laboratory.

▪ **Commercial Inspections / FOG Section**

The Commercial Inspections / Fats, Oils and Grease (FOG) Section inspects and enforces the City's sewer use ordinance at commercial/industrial facilities to support the following:

- Routine/educational inspections of pretreatment devices and systems to prevent POTW infrastructure damages; obstructions; Sanitary Sewer Overflows (SSOs); and WWTP upset, interference, and passthrough
- Complaint inspections
- Routine/educational stormwater inspections (in support of the City stormwater program)
- Construction inspections of pretreatment devices and compliance sampling points
- Investigation of potential illegal discharges
- Investigation of SSOs and sewer blockages
- FOG Pollution Prevention (P2) outreach to domestic users following SSOs in residential areas
- Issuance of Temporary Discharge/Manhole Entry Permits
- Referral of industries for permitting evaluation to the Industrial Pretreatment Section

- Implementation of the Dental Rule (Dental Office Point Source Category – 40 CFR Part 441).

Additionally, the section is responsible for examination of new and remodel commercial construction plans to determine the need for wastewater pretreatment and/or wastewater discharge permitting. A database is used by staff to systematically target geographic areas for preventative inspections, as well as to track pretreatment devices and enforcement history for a given facility.

Commercial Inspections / FOG Section Metrics

Routine/Educational Inspections	1299
Construction Inspections	142
SSO Investigations - Residential Areas (includes apartments)	23
SSO Investigations - Commercial/Industrial Areas	15
Routine/Educational Stormwater Inspections	1299
Notices of Violation	7
Plans Reviewed for Pretreatment	742

▪ ***Industrial Pretreatment Program Section***

The Industrial Pretreatment Program Section is responsible for the following:

- Inspections of permitted industrial users and potential permittees
- Routine/educational stormwater inspections (in support of the City stormwater program)
- Examination of industrial user construction plans with regard to industrial processes, pretreatment systems, and compliance sampling points
- Issuance of Wastewater Discharge Permits
- Evaluation of permitted industrial user compliance and file management
- Records retention
- Enforcement of permitted industrial users
- Periodic recalculation of industrial user sewer rates based on flow and loading
- Periodic revision of sewer use ordinances, standard operating procedures (SOPs), Civil Penalty Policy, and Enforcement Response Plan
- Pollution Prevention (P2) outreach to industrial and residential users
- Publication of industrial user escalated enforcement actions to enable public participation
- Annual publication of Significantly Noncompliant industrial users
- Coordination and writing of the Annual Report on behalf of the SROG cities.

Pollution Prevention Program

Section F.4.e. of the National Pollutant Discharge Elimination System (NPDES) Permit № AZ0020524 and AZPDES Permit № AZ0020559 requires the City of Phoenix (City) to develop and implement, through its Industrial Pretreatment Program (Program), a Pollution Prevention (P2) Program for controllable sources of pollutants within the service area of the 23rd and 91st Avenue Wastewater Treatment Plants (WWTPs). In accordance with the City's "Implementation of Best Management Practices in the Service Area of the 23rd and 91st Avenue WWTPs Project Schedule", as revised on March 22, 1996, the City's efforts for the period January 1, 2023 through December 31, 2023 are summarized below.

▪ **General Community Outreach / Education**

IPP and/or Commercial Staff participated in the following Community Outreach Events:

Community Outreach Events			
Event	Organizer	Dates	Attendees
Doggie Street Festival	Jude Artenstein	January 28, 2023	General Public
Tres Rios Nature Festival	Tres Rios	2/25-26/2023	General Public
'Slope Fest	East Sunnyslope Neighborhood Association & Block Watch	4/1/2023	General Public
Maya's Farm Earth Day Event	Maya's Farm	4/22/2023	General Public
Green Living 2023 Arizona Earth Day Extravaganza and Expo	Green Living Magazine	4/22/2023	General Public
Monsoon Safety Week	City of Phoenix CIO	6/15/2023	General Public

▪ **Industrial Pretreatment Compliance Academy**

The Industrial Pretreatment Section continues to deliver the Industrial Pretreatment Compliance Academy it developed in 1995 to support a P2 education/outreach program directed at industrial and commercial facilities located in Phoenix. The Compliance Academy classes include a PowerPoint presentation, a reference handbook, and a laboratory tour. The presentation and handbook include P2 information and demonstrates ideas to specific industry sectors including metal finishers, hospitals, industrial laundries, etc. During 2023 all courses were presented in a virtual or hybrid in-person and webinar format with a .pdf booklet; class information and participation is noted below:

Industrial Outreach Events: Industrial Pretreatment Compliance Academy			
Class Name	Place & Date	Attendee Types	No of Attendees
Wastewater Discharge Permit	Hybrid January 25, 2023	<ul style="list-style-type: none"> ▪ Industrial Permitted Users ▪ Pretreatment Staff from other Municipalities ▪ Staff from Arizona Department of Environmental Quality ▪ Pretreatment Consulting Staff 	52
Wastewater Compliance Sampling	Hybrid March 29, 2023		38
Laboratory Analytical Issues	Hybrid May 24, 2023		46
Enforcement	Hybrid July 26, 2023		43
Pollution Prevention (P2)	Hybrid September 27, 2023		28
Stormwater Compliance Overview	Online – WebEx November 16, 2023		40

▪ **Social Media Posts**

The Water Services Department published multiple social media posts in 2023 with messaging related to fats, oil and grease:

- Holiday meal cleanup best management practices – December 23, 2023, December 30, 2023 (Instagram)
- Holiday meal cleanup best management practices – December 23, 2023, December 29, 2023 (Facebook)
- Holiday meals and sanitary sewer overflows – November 16, 2023 (Facebook)
- Illegal dumping of oil, fuel, solvents – December 5, 2023 (Instagram)
- Fats oils and grease best management practices – January 1, 2023 (Facebook)

▪ **Water Cooler (Employee Newsletter)**

The Industrial Pretreatment Section and Commercial Inspections / FOG Section regularly contribute articles to the Water Cooler employee newsletter throughout the year in order to provide information on a variety of P2 topics. Specific topics and months include:

- National Prescription Drug Take Back Day is April 22, 2023
- Automotive Fluid Management – June 2023
- Flushable Wipes – September 2023
- Holiday Fats, Oils and Grease – November 2023

▪ **Environmental Services Division Newsletter**

The Water Services Department, Environmental Services Division, continued to issue a biannual newsletter in June and November 2023. The November 2023 newsletter included information on environmental programs, including Industrial Pretreatment, as well as fats, oils and grease messaging.

▪ **Point Source Control**

- The Industrial Pretreatment Section actively identifies, by SIC code, categorical classification, industry practices, Safety Data Sheet review, plan review, and other existing data, those businesses located in Phoenix that were likely to use the pollutants so that onsite inspections and wastestream sampling could be conducted to determine (1) whether or not they actually used the pollutants; (2) whether or not the pollutants are actually discharged to the WWTPs and at what levels and (3) the feasibility and benefit of implementing BMPs at businesses which discharge measurable levels of pollutants of concern. Meetings with the industrial groups and annual site inspections continue to reinforce BMP practices.
- Best Management Practices (BMPs) continue to be implemented on four pollutants. These pollutants are Fluoride, Molybdenum, Selenium, and DEHP. On January 1, 2005, the SROG cities adopted and implemented revised local limits. During the local limits review process, these four pollutants were identified as candidates for BMPs. The City determined the target industries which discharge these pollutants and identified opportunities for their reduction through the control document (Permit), inspections, and the IPP Compliance Academy.
- Class B Wastewater Discharge Permits continue to be issued for special dischargers. Industrial users that do not meet the definition of an SIU, but discharge high strength BOD/TSS wastewater, remediated groundwater, or pollutants of concern (conventional pollutants) are issued Class B Wastewater Discharge Permits.
- Class C Wastewater Discharge Permits continue to replace the Class B Zero Categorical Wastewater Discharge Permit. This permit type was issued beginning in 2021 to industrial users who meet the definition of a non-significant categorical industrial user (NSCIU). They include industrial users who perform manufacturing or service processes from one of the federal point

source categories but do not discharge wastewater generated from those processes. Through the end of 2023, the Industrial Pretreatment Section inspected 57 Class B Zero and/or C Permittees.

Training and Participation in Conferences and Workshops

▪ ***Individual Training:***

WSD/ESD Staff continue to enhance professional growth by enrolling in courses from various educational and training resources. To broaden their education, some inspectors take self-study courses through American Water College and obtain certifications through ADEQ. Operator Certifications include Water Distribution, Water Treatment, Wastewater Collection, and Wastewater Treatment.

On Wednesday, March 8, 2023, staff attended and presented at the Arizona Environmental Health Association's Spring Conference, at the ASU Downtown Phoenix campus. Staff presented to an audience of environmental health professionals on the topic "Wastewater and a Semiconductor Plant in the Desert" involving wastewater treatment at the 91st Avenue WWTP, industrial source control, a semiconductor case study, and environmental health considerations.

On August 9-10, 2023, Pretreatment staff attended and presented at the 38th Annual Tri-State Seminar (TSS) in Las Vegas, Nevada. TSS offers affordable education to water and wastewater operators and beyond through partner organizations in Arizona, Nevada and California. Content includes regulatory/pretreatment, stormwater, wastewater, water, laboratory, safety, leadership, and more.

▪ ***Group Training:***

On Wednesday, April 5 through Thursday, April 6, 2023, staff from the Commercial Inspections/FOG and IPP sections participated in two half-day trainings involving Enforcement and Permitting topics, overview, case studies and calculations conducted by Brown & Caldwell.

On Tuesday, May 9-11, 2023, staff attended and presented at the AZ Water Association's 96th Annual Conference & Exhibition hosted in-person at the Phoenix Convention Center. The Conference & Exhibition offers a multiple day program designed to provide professional development, continuing education, and technology transfer to support the AZ Water Association's vision of "a vibrant Arizona through safe, reliable water". The event attracts several thousand attendees from throughout the state and nation. Staff learned about a variety of topics during the Conference & Exhibition including: case studies, regulatory updates, reuse, resource planning, drought, wastewater treatment, stormwater topics, conservation, energy, and more.

On Tuesday, October 17, through Thursday, October 19, 2023, Pretreatment staff attended pretreatment inspections customized training conducted by Brown & Caldwell consisting of a ½ day classroom-style inspections training covering fats, oils and grease (FOG) as well as industrial user inspections. Then B & C performed one full day and two ½ days of hands-on field inspections with Pretreatment staff including Commercial/FOG facilities (construction inspections, follow-ups), and then Industrial User annual inspections.

On Thursday, October 19, through Friday, October 20, 2023, staff attended the Women Leading Government Conference, located at the Mesa Convention Center. This conference educates, inspires and connects attendees to support their careers and professional development within local government and public service.

On November 15-16, 2023, Pretreatment staff volunteered at and attended the AZ Water Association Pretreatment/FOG Fall Workshop held at the Glendale Civic Center and hosted by the AZ Water Pretreatment Committee. This workshop informs, educates, and trains water and

wastewater professional technicians, regulatory inspectors, managers, policymakers, and others on the latest developments in wastewater pretreatment and FOG program management. Topics of discussion and education included starting a FOG program, FOG inspections, local limits, sample collection, industrial user inspections, safety during inspections, PFAS and emerging contaminants, regulatory updates and more.

Other Activities

▪ ***Coordination with Other Pretreatment Programs***

Phoenix continued to provide counsel and guidance to the Pretreatment Programs of the contributing jurisdictions and Programs throughout the state during 2023. Multi-city coordination for purposes of encouraging compliance with federal requirements and consistency of implementation was accomplished through periodic multi-city meetings attended by representatives from each Program, as well as through periodic meetings with individual Program staff.

Phoenix personnel along with members from the other SROG cities continue the monthly sampling program at all 14 Metering Stations. This sampling program provides representative information about the quality of wastewater discharged to the 91st Avenue WWTP.

▪ ***Enforcement Activities to Involve and Inform the Public***

In addition to publication of Industrial Users having a status of Significant Noncompliance during the reporting year, the City used several types of legal instruments designed to bring industrial users back into compliance. The City continued to conduct Show Cause Proceedings and to collect monetary penalties from industrial users which violated pretreatment requirements during the year. A summary of these enforcement activities which identify the permittees, the nature of the violations, published Pretreatment Settlement Agreements, and any monetary penalties associated with those actions follows on the next page.

▪ ***NEFAP Accreditation***

The City of Phoenix Environmental Services Division achieved ISO/IEC 17025:2005 International Standard and the Field Sampling and Measurement Organizations (FSMO) Accreditation. The Certificate of Accreditation includes demonstration of technical competence in the fields defined by the Divisions scope of sampling and field tests. The Water and Wastewater Monitoring groups are one of eleven having this accreditation in the United States and the only accredited entities in Arizona.