

Protecting Our Water Environment



Metropolitan Water Reclamation District of Greater Chicago

***MONITORING AND RESEARCH
DEPARTMENT***

REPORT NO. 15-35

2014 ANNUAL SUMMARY REPORT

*WATER QUALITY WITHIN THE WATERWAY SYSTEM OF
THE METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO*

October 2015

Metropolitan Water Reclamation District of Greater Chicago
100 East Erie Street Chicago, Illinois 60611-2803 312-751-5600

2014 ANNUAL SUMMARY REPORT
WATER QUALITY WITHIN THE WATERWAY SYSTEM OF
THE METROPOLITAN WATER RECLAMATION DISTRICT
OF GREATER CHICAGO

By

Zainul Abedin
Biostatistician

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ACKNOWLEDGEMENTS

We recognize and appreciate the efforts of the Analytical Laboratories, Industrial Waste, and Environmental Monitoring and Research Divisions staff in collecting and analyzing waterways samples.

We appreciate the review by Ms. Jennifer Wasik, Supervising Aquatic Biologist, of the Aquatic Ecology and Water Quality Section, and Dr. Albert Cox, Environmental Monitoring and Research Manager, for checking the accuracy of the information presented in this report.

We acknowledge the helpful comments of Dr. Heng Zhang, Assistant Director of Monitoring and Research Department, Environmental Monitoring and Research Division.

This manuscript was produced by an automated L^AT_EX program that accessed auxiliary programs in SAS and Visual Basic. These auxiliary programs generate data for text, tables, figures, and results of statistical analysis to logically feed the L^AT_EX program responsible for final output of the manuscript.

Thanks and special appreciation go to Ms. Laura Franklin, Administrative Specialist, Ms. Kathleen Quinlan, Senior Administrative Specialist, and Ms. Bettina Gregor, Secretary, for proof-reading, offering editorial comments, and other assistance formatting this report.

DISCLAIMER

Mention of proprietary equipment and chemicals in this report does not constitute endorsement by the Metropolitan Water Reclamation District of Greater Chicago.

INTRODUCTION

The Metropolitan Water Reclamation District of Greater Chicago (District) has an environmental monitoring program that monitors the water quality of the streams and canals within its jurisdiction. Detailed annual water quality summaries of all water quality data collected have been published by the District for the years 1972 through 2013. Complete tabulations of waterway monitoring data collected by the District are available for the years 1970 through 2014 on the District's website at www.mwrd.org.

WATER QUALITY MONITORING NETWORK

Description of Waterways

The District has an environmental monitoring program that monitors the water quality of the waterways that are impacted by its operations. A map depicting the waterways is shown in [Figure 1](#). These include both man-made and natural waterways. Principal man-made water courses are: the North Shore Channel, connecting Lake Michigan at Wilmette to the North Branch of the Chicago River; the Chicago Sanitary and Ship Canal (Main Channel), extending from Damen Avenue to the Lockport Powerhouse; and the Calumet-Sag Channel, connecting the Little Calumet River with the Main Channel. The principal natural river systems monitored under the District's surveillance programs are: the Chicago River System, including the North and South Branches of the Chicago River; the Des Plaines River System, flowing south from Lake County and joining with the discharge from the Main Channel downstream of the powerhouse at Lockport; and the Calumet River System, which flows into the Calumet-Sag Channel.

Water Use Designations. Illinois Pollution Control Board (IPCB) Regulations, Section 303.201, specify that "except as otherwise specifically provided, all waters of the State must meet the General Use standards for Subpart B of Part 302." Section 303.441 delineates those waters which do not qualify for General Use but "... are designated as secondary contact and indigenous aquatic life waters [Secondary Contact Waters] and must meet the water quality standards of 35 Ill. Adm. Code 302, Subpart D."

By definition, all sampling locations not in waters classified as Secondary Contact Waters are within General Use Waters. The delineation of these two water use classifications is shown in [Figure 1](#). The Des Plaines River System is entirely within the General Use classification. The General Use waters in the Chicago and Calumet River Systems consist mostly of the streams that are tributary to the principal man-made channels and modified river sections.

Waterway Sampling and Analysis.

Surface water grab samples were taken at 28 locations during 2014. Their locations are shown in [Figure 1](#). The samples were taken at a monthly frequency, with one of the three principal river systems being sampled on a given day. The total number of samples collected monthly in each river system during 2014 is shown in [Table 1](#). In addition, weekly grab samples were taken at the Lockport Powerhouse. Occasionally, either frozen or low flow conditions prohibited sampling at certain stations.

The District's laboratories performed 53 analyses on each of the water samples collected from the waterways during 2014. A list of these analyses and additional parameters computed from these analyses as well as reporting limits are shown in [Table 2](#). [Table 2](#) also shows the water quality standard for each parameter as defined by the IPCB in the State of Illinois Rules and Regulations, Title 35.

Locations sampled in the respective river systems and sample frequency during 2014 are shown in [Tables 3](#) and [4](#) for General Use and Secondary Contact waters, respectively. Eleven sites were sampled in the Chicago River System, six sites in the Calumet River System, and 11 sites in

the Des Plaines River System. The waterway system sampling station numbers correspond to the numbers on the map shown in Figure 1. The complete directory of all 107 historical stations, of which the 28 sampling locations in 2014 are a subset, is in Table AI-1, Appendix AI.

In the General Use Waters, 53 parameters were analyzed in 2014, of which 28 parameters are covered by the State of Illinois Water Quality Standards. These parameters are total suspended solids; volatile suspended solids; dissolved oxygen; temperature; pH; chloride; total alkalinity; total Kjeldahl nitrogen; ammonia nitrogen; total solids; fats, oils, and greases; organic nitrogen; total dissolved solids; phenols; sulfate; total phosphorus; total cyanide; nitrite plus nitrate nitrogen; total hexavalent chromium; total mercury; total boron; total selenium; total barium; total silver; fecal coliform; un-ionized ammonia; hardness; total organic carbon; total manganese; total fluoride; total calcium; total magnesium; gross alpha radioactivity; gross beta radioactivity; weak acid dissociable cyanide; chlorophyll *a*; benzene; ethylbenzene; toluene; xylene; meta and/or para xylenes; ortho xylene; soluble zinc; soluble cadmium; soluble copper; soluble chromium; soluble iron; soluble nickel; soluble lead; soluble arsenic; soluble silver; soluble manganese; and low level mercury. Two parameters (benzene and total mercury) were subject to IPCB Human Health Standards.

In the Secondary Contact Waters, 52 parameters were analyzed in 2014, of which 16 parameters were subject to IPCB Water Quality Standards. Only low level mercury was not assayed in the Secondary Contact Waters.

RESULTS

Annual mean results for 2014 are shown in Appendix AII compared with means from previous 10-year period, at each station. All of the water quality data are available on the District's website at www.mwrd.org.

TABLE 1: TOTAL NUMBER OF WATERWAY SAMPLES COLLECTED
MONTHLY AT BRIDGE RUN LOCATIONS DURING 2014

Month	River System		
	Chicago	Calumet	Des Plaines
January	13	1	1
February	7	4	4
March	14	6	4
April	14	6	11
May	14	6	11
June	15	6	10
July	14	6	11
August	14	6	10
September	15	6	10
October	14	6	11
November	14	6	10
December	14	6	9

TABLE 2: WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING WATER QUALITY STANDARDS IN 2014¹

Parameter Name (Unit)	Reporting Limit	Water Use Designations	
		General Use ² Standard	Secondary Contact ³ Standard
Dissolved Oxygen (mg/L)	-	Various ⁴	Various ⁴
Temperature (°C)	-	Various ⁵	34.0
pH	-	6.5-9.0	6.0-9.0
Total Alkalinity (mg/L)	10	NAS	NAS
Chloride (mg/L)	10	500	NAS
Total Kjeldahl Nitrogen (mg/L)	1	NAS	NAS
Ammonia Nitrogen (mg/L)	0.1	EQ ⁶	NAS
Un-ionized Ammonia (mg/L)	-	NAS	0.1
Organic Nitrogen (mg/L)	-	NAS	NAS
Nitrite Plus Nitrate Nitrogen (mg/L)	0.15	NAS	NAS
Total Solids (mg/L)	-	NAS	NAS
Total Suspended Solids (mg/L)	4	NAS	NAS
Volatile Suspended Solids (mg/L)	-	NAS	NAS
Total Dissolved Solids (mg/L)	60	NAS	1500
Phenols (µg/L)	5	100	300
Sulfate (mg/L)	5	EQ ⁷	NAS
Fats, Oils, and Greases (mg/L)	5	NAS	15
Total Phosphorus (mg/L)	0.2	NAS	NAS
Total Cyanide (mg/L)	0.005	NAS	0.1
Weak Acid Dissociable Cyanide (mg/L)	0.002	0.022	NAS
Total Fluoride (mg/L)	0.1	EQ ⁸	15
Total Organic Carbon (mg/L)	1	NAS	NAS
Fecal Coliform (cfu/100mL)	10	400	NAS
Total Calcium (mg/L)	1	NAS	NAS
Total Magnesium (mg/L)	1	NAS	NAS
Hardness (mg/L)	-	NAS	NAS

TABLE 2 (Continued): WATER SAMPLE ASSAYS PERFORMED AND
CORRESPONDING WATER QUALITY STANDARDS IN 2014¹

Parameter Name (Unit)	Reporting Limit	Water Use Designations	
		General Use ² Standard	Secondary Contact ³ Standard
Gross Alpha Radioactivity (pCi/L)	-	NAS	NAS
Gross Beta Radioactivity (pCi/L)	-	100	NAS
Chlorophyll <i>a</i> (µg/L)	1	NAS	NAS
Benzene(µg/L)*	2	310	NAS
Benzene (µg/L)	2	4200	NAS
Ethylbenzene (µg/L)	2	150	NAS
Toluene (µg/L)	2	2000	NAS
Xylene (µg/L)	3	920	NAS
Meta and/or Para Xylenes (µg/L)	3	NAS	NAS
Ortho Xylene (µg/L)	3	NAS	NAS
Total Silver (mg/L)	0.001	0.005	1.1
Total Barium (mg/L)	0.004	5	5
Total Boron (mg/L)	0.05	40.1	NAS
Total Hexavalent Chromium (µg/L)	6	16	300
Total Manganese (mg/L)	0.001	NAS	1
Total Mercury (ng/L) [low level]*	0.5	12	NAS
Total Mercury (µg/L)	0.2	NAS	0.5
Total Selenium (mg/L)	0.005	1	1
Soluble Silver (mg/L)	0.001	NAS	NAS
Soluble Arsenic (mg/L)	0.02	0.36	NAS
Soluble Cadmium (mg/L)	0.001	EQ ⁹	NAS
Soluble Copper (mg/L)	0.005	EQ ¹⁰	NAS
Soluble Chromium (mg/L)	0.005	EQ ¹¹	NAS
Soluble Iron (mg/L)	0.1	1	0.5
Soluble Lead (mg/L)	0.02	EQ ¹²	NAS

TABLE 2 (Continued): WATER SAMPLE ASSAYS PERFORMED AND CORRESPONDING WATER QUALITY STANDARDS IN 2014¹

Parameter Name (Unit)	Reporting Limit	Water Use Designations	
		General Use ² Standard	Secondary Contact ³ Standard
Soluble Nickel (mg/L)	0.005	EQ ¹³	NAS
Soluble Manganese (mg/L)	0.001	EQ ¹⁴	NAS
Soluble Zinc (mg/L)	0.01	EQ ¹⁵	NAS

¹Water Quality Standards from “State of Illinois Rules and Regulations,” Title 35: Environmental Protection, Subtitle C: Water Pollution.

²General Use Waters Designations, defined in Section 302.201 from 1 above. See [Figure 1](#), for delineation.

³Secondary Contact and Indigenous Aquatic Life Use designation, defined in section.

⁴For General Use Waters, the standard is 5.0 mg/L in March through July and 3.5 mg/L in other months. For Secondary Contact Waters the standard is 4.0 mg/L but 3.0 mg/L for Calumet Sag Channel.

⁵Standard depends on month for General Use Waters.

⁶ $[0.411/(1 + 10^{7.204-pH}) + 58.4/(1 + 10^{pH-7.204})]$

⁷General Use standard depends on hardness and chloride value of certain range.

⁸General Use standard is evaluated by an equation that depends on hardness.

⁹ $[(1.138672 - 0.041838 \ln(\text{Hard})) * e^{-2.918+1.128 \ln(\text{Hard})} * 0.001]$

¹⁰ $e^{-1.464+0.9422 \ln(\text{Hard})} * 0.000960$

¹¹ $e^{3.688+0.819 \ln(\text{Hard})} * 0.000316$

¹² $[1.46203 - 0.145712 \ln(\text{Hard})] * e^{-1.301+1.273 \ln(\text{Hard})} * 0.001$

¹³ $e^{0.5173+0.846 \ln(\text{Hard})} * 0.000998$

¹⁴ $e^{4.9187+0.7467 \ln(\text{Hard})} * 0.9812$

¹⁵ $e^{0.9035+0.8473 \ln(\text{Hard})} * 0.000978$

EQ= Standard is determined by the respective equation.

NAS = No Applicable Standard.

*Human Health Standard. Reporting limit is different because analysis is different.

TABLE 3: LOCATIONS SAMPLED AND ANNUAL SAMPLING
 FREQUENCIES OF GENERAL USE WATERS IN 2014

Map No. ¹	Station Name	Annual No. of Samples
<u>Chicago River System</u>		
96	Albany Avenue, North Branch Chicago River	11
112	Dempster Street, North Shore Channel	9
100	Wells Street, Chicago River	11
		<u>31</u>
<u>Calumet River System</u>		
57	Ashland Avenue, Little Calumet River	11
		<u>11</u>
<u>Des Plaines River System</u>		
79	Higgins Road, Salt Creek	9
18	Devon Avenue, Salt Creek	11
109	Brookfield Avenue, Salt Creek	9
77	Elmhurst Road, Higgins Creek	4
78	Wille Road, Higgins Creek	12
19	Belmont Avenue, Des Plaines River	10
22	Ogden Avenue, Des Plaines River	9
23	Willow Springs Road, Des Plaines River	9
91	Material Service Road, Des Plaines River	10
110	Springinsguth Road, West Branch DuPage River	8
111	Arlington Drive, West Branch DuPage River	11
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¹Refer to Figure 1.

TABLE 4: LOCATIONS SAMPLED AND ANNUAL SAMPLING FREQUENCIES OF SECONDARY CONTACT WATERS IN 2014

Map No. ¹	Station Name	Annual No. of Samples
<u>Chicago River System</u>		
36	Touhy Avenue, North Shore Channel	12
73	Diversey Parkway, North Branch Chicago River	12
108	Loomis Street, South Branch Chicago River	12
99	Archer Avenue, South Fork South Branch Chicago River	11
75	Cicero Avenue, Chicago Sanitary and Ship Canal	11
41	Harlem Avenue, Chicago Sanitary and Ship Canal	11
48	Stephen Street, Chicago Sanitary and Ship Canal	11
92	Lockport Forebay, Chicago Sanitary and Ship Canal	<u>51</u>
		131
<u>Calumet River System</u>		
86	Burnham Avenue, Grand Calumet River	10
56	Indiana Avenue, Little Calumet River	10
76	Halsted Street, Little Calumet River	12
59	Cicero Avenue, Calumet-Sag Channel	11
43	Route 83, Calumet-Sag Channel	<u>11</u>
		54

¹Refer to Figure 1.

Water Quality Monitoring Upstream and Downstream of Water Reclamation Plants

The District currently operates seven water reclamation plants (WRPs). The receiving waters upstream and downstream of the outfalls (the discharge points of the effluent from the WRPs) for six of these WRPs were sampled during 2014. The treated effluents of three of these WRPs (Hanover Park, John E. Egan, and James C. Kirie) discharge their treated effluents into General Use Waters. The effluents from the Terrence J. O'Brien, Stickney, and Calumet WRPs discharge into Secondary Contact Waters. During 2014, the lack of an upstream sampling location for the Lemont WRP which was downstream of the Calumet-Sag junction precluded an evaluation. Upstream and downstream sampling locations for the respective WRPs are shown in [Table 5](#).

The outfalls for Hanover Park, John E. Egan, and James C. Kirie WRPs are located in the West Branch of the DuPage River, Salt Creek, and Higgins Creek, respectively. More specifically, the sampling stations for the plants that discharge to General Use Waters are located as follows:

1. The upstream station for the Hanover Park WRP is located at Springinsguth Road, West Branch DuPage River, 1.6 miles above the outfall, and the downstream station is located at Arlington Drive, 3.0 miles below the outfall.
2. The upstream station for the John E. Egan WRP is located at Higgins Road, 1.4 miles above the outfall, and the downstream station is located at Devon Avenue, 2.4 miles below the outfall.
3. The upstream sampling point for the James C. Kirie WRP is located at Elmhurst Road, about 1,000 feet upstream of the outfall, while the downstream station is at the Wille Road Bridge, about 300 feet downstream of the outfall.

Specific locations of WRPs which have outfalls located within the Secondary Contact Waters of the District's canal system are:

1. The Terrence J. O'Brien WRP treated effluent discharges into the North Shore Channel. The upstream and downstream sample points are located at Dempster Street and Touhy Avenue, respectively. Dempster Street is 1.5 miles above the outfall, and Touhy Avenue is 3,600 feet below.
2. The upstream and downstream sample points for the Stickney WRP are Cicero Avenue and Harlem Avenue, respectively, both on the Chicago Sanitary and Ship Canal. Cicero Avenue is 1.5 miles above and Harlem Avenue is 1.7 miles below the outfall.
3. The upstream sample point for the Calumet WRP is located at Indiana Avenue on the Little Calumet River. Downstream samples of the outfall are taken at Halsted Street on the Little Calumet River. Indiana Avenue is 1.0 mile above and Halsted Street is 1.3 miles below the outfall.

TABLE 5: ANNUAL SAMPLING FREQUENCIES AT
UPSTREAM AND DOWNSTREAM LOCATIONS OF THE
WATER RECLAMATION PLANTS IN 2014

WRP	Upstream Sample			Downstream Sample		
	Location	No. ¹	Freq.	Location	No. ¹	Freq.
Terrence J. O'Brien	Dempster Street, North Shore Channel	112	9	Touhy Avenue, North Shore Channel	36	12
Stickney	Cicero Avenue, Chicago Sanitary & Ship Canal	75	11	Harlem Avenue, Chicago Sanitary & Ship Canal	41	11
Calumet	Indiana Avenue, Little Calumet River	56	10	Halsted Street, Little Calumet River	76	12
John E. Egan	Higgins Road, Salt Creek	79	9	Devon Avenue, Salt Creek	18	11
James C. Kirie	Elmhurst Road, Higgins Creek	77	4	Wille Road, Higgins Creek	78	12
Hanover Park	Springinguth Road, West Branch, Du Page River	110	8	Arlington Drive, West Branch, Du Page River	111	11

¹Location No. of stations are shown in Figure 1.

Several statistical analyses were performed to evaluate the effect of flow from each WRP on its receiving stream. The sample values of each parameter at the upstream and downstream locations were first tested to determine if they exhibited normal distribution and then tested for equality of variances. If the upstream and downstream sample data came from normally distributed populations and had equal variance, an exact t-test was used for testing the equality of upstream and downstream means. An approximate t-test was used if the data came from two different normally distributed populations.

If the sample size for each of the upstream and downstream data sets was less than 30, and did not come from normally distributed populations, a Wilcoxon rank-sum test was used to test for the equality of two population centers. Wilcoxon test applies to sample mean and median if both upstream and downstream populations come from symmetric populations; otherwise, the test applies to population medians only. Symmetry of a population was determined by a box plot if the sample size was small ($n < 30$).

The mean levels for each parameter measured at the upstream and downstream locations of each WRP and the appropriate significance probability associated with the exact t-test/approximate t-test or Wilcoxon rank-sum test are tabulated in Tables 6 through 11. Tables AIII-1 through AIII-6 in Appendix AIII show in detail the significance probability for testing normality and equality of variances of the upstream and downstream data, and the significance probability for testing the equality of upstream and downstream means employing an appropriate test.

Fifty-three water quality parameters, including 34 parameters which have either IPCB General Use, Human Health, or Secondary Contact standards, were assayed for all WRPs in 2014. Comparison of the mean concentrations of the common parameters (maximum 53) at upstream and downstream locations showed that the downstream mean concentrations are significantly different from the upstream mean concentrations for some parameters, and about the same for the other parameters. This was indicated by the significance probabilities given in Tables 6 through 11. A value of 0.05 or smaller indicates that the two means are significantly different, and a value greater than 0.05 indicates there is no significant difference between means.

Steps involved in the evaluation of the results of this type of comparison were:

1. Identify the parameters that exhibit a difference in the mean concentration levels at the upstream and downstream locations.
2. Compare the mean concentrations of each parameter at the upstream and downstream locations and determine if any differences are attributable to wastewater treatment effluent quality.

TABLE 6: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE TERRENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	8.1		7.1	0.560
Temperature	Temp (°C)	15		15	0.782
pH	pH	7.6		7.1	0.092
Total Alkalinity	Alk (mg/L)	131		150	0.026
Chloride	Cl (mg/L)	75		200	0.038
Total Kjeldahl Nitrogen	TKN (mg/L)	1.2		3.1	0.004
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.42		1.72	0.012
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.025		0.008	0.418
Organic Nitrogen	ORG-N (mg/L)	0.80		1.37	0.081
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.48		6.48	0.000
Total Solids	TS (mg/L)	340		569	0.047
Total Suspended Solids	TSS (mg/L)	14		9	0.061
Volatile Suspended Solids	VSS (mg/L)	6.6		5.3	0.482
Total Dissolved Solids	TDS (mg/L)	325		560	0.042
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	34		48	0.032
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.24		1.38	0.000
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.18		0.67	0.000
Total Organic Carbon	TOC (mg/L)	3.2		4.8	0.036
Fecal Coliform *	FC (#/100ml)	322		14264	0.005
Total Calcium	Ca (mg/L)	43		55	0.017
Total Magnesium	Mg (mg/L)	15		20	0.005
Hardness	Hard (mg/L)	169		219	0.011
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.4		1.9	0.020
Gross Beta Radioactivity	G. Beta (pCi/L)	1.8		3.7	0.000

TABLE 6 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE TERRENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	67		<1	0.143
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	Toln ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.026		0.026	0.961
Total Boron	B (mg/L)	0.059		0.151	0.000
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		<6	-
Total Manganese	Mn (mg/L)	0.021		0.027	0.327
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	4.001		<0.5	-
Total Selenium	Se (mg/L)	0.012		0.016	0.482
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.026		0.035	0.172
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		<0.005	-
Soluble Manganese	Sol. Mn (mg/L)	0.011		0.019	0.048
Soluble Zinc	Sol. Zn (mg/L)	<0.01		0.028	-

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-1 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-1) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

TABLE 7: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE STICKNEY WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	6.3		7.0	0.254
Temperature	Temp (°C)	14		16	0.688
pH	pH	7.2		7.2	0.687
Total Alkalinity	Alk (mg/L)	152		153	0.967
Chloride	Cl (mg/L)	208		227	0.792
Total Kjeldahl Nitrogen	TKN (mg/L)	1.4		1.4	0.585
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.77		0.65	0.549
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.004		0.003	0.552
Organic Nitrogen	ORG-N (mg/L)	0.59		0.72	0.277
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	4.3		5.8	0.151
Total Solids	TS (mg/L)	609		681	0.592
Total Suspended Solids	TSS (mg/L)	11		7	0.008
Volatile Suspended Solids	VSS (mg/L)	4.6		4.5	0.651
Total Dissolved Solids	TDS (mg/L)	598		674	0.572
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	47		73	0.000
Fats, Oils, and Greases	FOG (mg/L)	<5		5.8	-
Total Phosphorus	TP (mg/L)	0.57		0.68	0.572
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.45		0.57	0.050
Total Organic Carbon	TOC (mg/L)	4.0		4.4	0.207
Fecal Coliform *	FC (#/100ml)	183		2243	0.000
Total Calcium	Ca (mg/L)	57		59	0.611
Total Magnesium	Mg (mg/L)	21		21	0.789
Hardness	Hard (mg/L)	227		235	0.673
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.8		1.8	0.928
Gross Beta Radioactivity	G. Beta (pCi/L)	2.6		3.1	0.240

TABLE 7 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE STICKNEY WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	8.5		4.3	0.265
Benzene	Bnzn ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	ToIn ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.030		0.024	0.053
Total Boron	B (mg/L)	0.102		0.167	0.002
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		<6	-
Total Manganese	Mn (mg/L)	0.044		0.037	0.593
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	<0.5		<0.5	-
Total Selenium	Se (mg/L)	0.018		0.015	0.684
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.036		0.036	0.916
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		0.006	0.858
Soluble Manganese	Sol. Mn (mg/L)	0.054		0.022	0.263
Soluble Zinc	Sol. Zn (mg/L)	0.016		0.017	0.530

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-2 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-2) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

TABLE 8: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE CALUMET WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	8.8		7.3	0.044
Temperature	Temp (°C)	17		14	0.445
pH	pH	7.7		7.2	0.009
Total Alkalinity	Alk (mg/L)	137		166	0.004
Chloride	Cl (mg/L)	126		190	0.051
Total Kjeldahl Nitrogen	TKN (mg/L)	1.2		1.4	0.307
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.31		0.57	0.112
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.006		0.002	0.170
Organic Nitrogen	ORG-N (mg/L)	0.89		0.85	0.807
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	1.9		5.2	0.001
Total Solids	TS (mg/L)	467		634	0.026
Total Suspended Solids	TSS (mg/L)	17		14	0.446
Volatile Suspended Solids	VSS (mg/L)	4.4		5.3	0.425
Total Dissolved Solids	TDS (mg/L)	450		621	0.022
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	61		85	0.037
Fats, Oils, and Greases	FOG (mg/L)	<5		5.1	-
Total Phosphorus	TP (mg/L)	0.42		1.73	0.001
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.32		0.54	0.000
Total Organic Carbon	TOC (mg/L)	3.4		4.6	0.008
Fecal Coliform *	FC (#/100ml)	67		2083	0.001
Total Calcium	Ca (mg/L)	51		66	0.006
Total Magnesium	Mg (mg/L)	20		24	0.113
Hardness	Hard (mg/L)	209		263	0.018
Gross Alpha Radioactivity	G. Alpha (pCi/L)	1.8		1.8	0.888
Gross Beta Radioactivity	G. Beta (pCi/L)	2.8		3.3	0.325

TABLE 8 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE CALUMET WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	19		9	0.157
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	Toln ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.029		0.026	0.275
Total Boron	B (mg/L)	0.140		0.177	0.094
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		<6	-
Total Manganese	Mn (mg/L)	0.023		0.044	0.053
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	<0.5		<0.5	-
Total Selenium	Se (mg/L)	0.010		0.018	0.163
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.031		0.041	0.258
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		<0.005	-
Soluble Manganese	Sol. Mn (mg/L)	0.014		0.021	0.395
Soluble Zinc	Sol. Zn (mg/L)	0.012		0.019	0.131

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-3 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-3) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

TABLE 9: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	8.7		8.1	0.495
Temperature	Temp (°C)	16		15	0.590
pH	pH	7.6		7.3	0.329
Total Alkalinity	Alk (mg/L)	177		149	0.019
Chloride	Cl (mg/L)	390		338	0.569
Total Kjeldahl Nitrogen	TKN (mg/L)	1.1		<1	0.884
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.11		0.13	0.669
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.002		0.002	0.982
Organic Nitrogen	ORG-N (mg/L)	1.0		0.9	0.459
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.20		8.39	0.000
Total Solids	TS (mg/L)	960		883	0.644
Total Suspended Solids	TSS (mg/L)	20		10	0.010
Volatile Suspended Solids	VSS (mg/L)	6.0		4.0	-
Total Dissolved Solids	TDS (mg/L)	940		874	0.690
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	70		79	0.324
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	<0.2		1.35	-
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.21		0.52	0.000
Total Organic Carbon	TOC (mg/L)	5.8		5.4	0.312
Fecal Coliform *	FC (#/100ml)	119		531	0.167
Total Calcium	Ca (mg/L)	67		66	0.847
Total Magnesium	Mg (mg/L)	29		26	0.169
Hardness	Hard (mg/L)	289		270	0.509
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.4		2.3	0.771
Gross Beta Radioactivity	G. Beta (pCi/L)	2.4		3.5	0.040

TABLE 9 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	24		13	0.069
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	ToIn ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.045		0.032	0.009
Total Boron	B (mg/L)	0.090		0.209	0.004
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		<6	-
Total Manganese	Mn (mg/L)	0.083		0.050	0.083
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	10.023		5.300	0.489
Total Selenium	Se (mg/L)	0.009		0.015	0.140
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.034		0.039	0.606
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		0.007	-
Soluble Manganese	Sol. Mn (mg/L)	0.034		0.031	0.832
Soluble Zinc	Sol. Zn (mg/L)	<0.01		0.018	-

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-4 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-4) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

TABLE 10: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	8.6		9.0	0.605
Temperature	Temp (°C)	16		15	0.729
pH	pH	8.0		7.4	0.025
Total Alkalinity	Alk (mg/L)	150		182	0.095
Chloride	Cl (mg/L)	572		239	0.198
Total Kjeldahl Nitrogen	TKN (mg/L)	<1		1.3	-
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.13		0.25	0.038
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.004		0.003	0.463
Organic Nitrogen	ORG-N (mg/L)	0.88		1.07	0.083
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.24		11.12	0.000
Total Solids	TS (mg/L)	1208		758	0.314
Total Suspended Solids	TSS (mg/L)	13		<4	0.001
Volatile Suspended Solids	VSS (mg/L)	4.3		4.0	-
Total Dissolved Solids	TDS (mg/L)	1196		754	0.324
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	49		92	0.002
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.23		1.13	0.000
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.20		0.69	-
Total Organic Carbon	TOC (mg/L)	4.5		4.7	0.862
Fecal Coliform *	FC (#/100ml)	761		151	0.173
Total Calcium	Ca (mg/L)	69		68	0.978
Total Magnesium	Mg (mg/L)	25		27	0.796
Hardness	Hard (mg/L)	274		279	0.931
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.7		2.1	0.380
Gross Beta Radioactivity	G. Beta (pCi/L)	2.0		4.9	0.000

TABLE 10 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	22		3	0.154
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	ToIn ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.060		0.024	0.050
Total Boron	B (mg/L)	0.090		0.225	-
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	<6		6.083	-
Total Manganese	Mn (mg/L)	0.116		0.018	0.025
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	6.100		5.730	0.922
Total Selenium	Se (mg/L)	0.015		0.012	0.675
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.040		0.038	0.888
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	0.006		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	<0.1		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		0.006	-
Soluble Manganese	Sol. Mn (mg/L)	0.080		0.013	0.088
Soluble Zinc	Sol. Zn (mg/L)	<0.01		0.029	-

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-5 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-5) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

TABLE 11: COMPARISON OF LEVELS OF 53 WATER QUALITY
PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS
FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Dissolved Oxygen	DO (mg/L)	6.0		8.8	0.021
Temperature	Temp (°C)	17		14	0.417
pH	pH	7.6		7.2	0.457
Total Alkalinity	Alk (mg/L)	213		157	0.008
Chloride	Cl (mg/L)	343		232	0.094
Total Kjeldahl Nitrogen	TKN (mg/L)	1.5		1.7	0.556
Ammonia Nitrogen	NH ₄ -N (mg/L)	0.28		0.49	0.192
Un-ionized Ammonia	NH ₃ -N (mg/L)	0.004		0.003	0.569
Organic Nitrogen	ORG-N (mg/L)	1.3		1.2	0.916
Nitrite Plus Nitrate Nitrogen	NO ₂ + NO ₃ (mg/L)	0.58		11.81	0.000
Total Solids	TS (mg/L)	947		739	0.141
Total Suspended Solids	TSS (mg/L)	11		30	0.044
Volatile Suspended Solids	VSS (mg/L)	5.8		6.5	0.623
Total Dissolved Solids	TDS (mg/L)	937		709	0.115
Phenols	Phenol (µg/L)	<5		<5	-
Sulfate	SO ₄ (mg/L)	84		76	0.632
Fats, Oils, and Greases	FOG (mg/L)	<5		<5	-
Total Phosphorus	TP (mg/L)	0.23		2.02	0.000
Total Cyanide	CN (mg/L)	<0.005		<0.005	-
WAD Cyanide	WAD-CN (mg/L)	0.0050		0.0050	-
Total Fluoride	F (mg/L)	0.33		0.56	0.010
Total Organic Carbon	TOC (mg/L)	11		6	0.015
Fecal Coliform *	FC (#/100ml)	6145		1596	0.173
Total Calcium	Ca (mg/L)	84		69	0.193
Total Magnesium	Mg (mg/L)	32		27	0.320
Hardness	Hard (mg/L)	339		284	0.237
Gross Alpha Radioactivity	G. Alpha (pCi/L)	2.6		2.0	0.167
Gross Beta Radioactivity	G. Beta (pCi/L)	2.1		4.9	0.000

TABLE 11 (Continued): COMPARISON OF LEVELS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS FOR THE HANOVER PARK WATER RECLAMATION PLANT IN 2014

Parameter	Abbreviation (Units)	U ¹	vs.	D ²	Sig. Prob. ^{3,4}
Chlorophyll <i>a</i>	Chlrphl ($\mu\text{g/L}$)	15		18	0.625
Benzene	Bznz ($\mu\text{g/L}$)	<2		<2	-
Ethylbenzene	Ebnzn ($\mu\text{g/L}$)	<2		<2	-
Toluene	Toln ($\mu\text{g/L}$)	<2		<2	-
Xylene	Xyln ($\mu\text{g/L}$)	<3		<3	-
Meta and/or Para Xylenes	xylnmp ($\mu\text{g/L}$)	<3		<3	-
Ortho Xylene	xylno ($\mu\text{g/L}$)	<3		<3	-
Total Silver	Ag (mg/L)	<0.001		<0.001	-
Total Barium	Ba (mg/L)	0.053		0.039	0.004
Total Boron	B (mg/L)	0.088		0.156	0.000
Total Hexavalent Chromium	Cr ⁺⁶ ($\mu\text{g/L}$)	6.125		<6	-
Total Manganese	Mn (mg/L)	0.082		0.057	0.027
Total Mercury	Hg ($\mu\text{g/L}$)	<0.2		<0.2	-
Low Level Mercury	Hg- (ng/L)	4.375		5.280	0.651
Total Selenium	Se (mg/L)	0.012		0.015	0.567
Soluble Silver	Sol. Ag (mg/L)	<0.001		<0.001	-
Soluble Arsenic	Sol. As (mg/L)	0.037		0.039	0.860
Soluble Cadmium	Sol. Cd (mg/L)	<0.001		<0.001	-
Soluble Copper	Sol. Cu (mg/L)	<0.005		<0.005	-
Soluble Chromium	Sol. Cr (mg/L)	<0.005		<0.005	-
Soluble Iron	Sol. Fe (mg/L)	0.271		<0.1	-
Soluble Lead	Sol. Pb (mg/L)	<0.02		<0.02	-
Soluble Nickel	Sol. Ni (mg/L)	<0.005		<0.005	-
Soluble Manganese	Sol. Mn (mg/L)	0.184		0.041	0.263
Soluble Zinc	Sol. Zn (mg/L)	0.013		0.027	0.004

¹Upstream (U), value following < sign is the average detection limit.

²Downstream (D), value following < sign is the average detection limit.

³Significance Probability ≤ 0.05 indicates that upstream and downstream population means are not equal.

⁴Some tests may be based on Wilcoxon rank-sum statistics that apply to population medians only in the absence of population symmetry. Please see Appendix AIII-6 for details.

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means (see Appendix AIII-6) for details.

- No test was done since standard deviations are below the detection limit or equal to 0.

Parameters which were significantly different between downstream location and upstream location are identified for each WRP. Note that due to frozen conditions, stations upstream of Water Reclamation Plants are often sampled less frequently than downstream stations during the winter. This may influence the comparison for certain constituents, such as chloride, which is generally higher in the winter due to road salt application. A summary of the results from each WRP follows.

Terrence J. O'Brien Water Reclamation Plant. Locations 112 and 36, upstream and downstream, respectively, of the Terrence J. O'Brien WRP, are classified as General Use and Secondary Contact waters. Forty-three water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations. The following 19 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- total alkalinity, chloride, total Kjeldahl nitrogen, ammonia nitrogen, nitrite plus nitrate nitrogen, total solids, total dissolved solids, sulfate, total phosphorus, total fluoride, total organic carbon, fecal coliform, total calcium, total magnesium, hardness, gross alpha radioactivity, gross beta radioactivity, total boron, and soluble manganese.

The downstream average concentrations of all parameters were significantly higher than the upstream average concentration.

Stickney Water Reclamation Plant. Both the upstream and downstream sampling locations (75 and 41, respectively) of the Stickney WRP are located in the Secondary Contact Waters of the Chicago River System. Fifty water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations. The following five water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- total suspended solids, sulfate, total fluoride, fecal coliform, and total boron.

All parameters had significantly higher means downstream than upstream except total suspended solids, which had higher mean upstream than downstream.

Calumet Water Reclamation Plant. Both the upstream and downstream sampling locations (56 and 76, respectively) of the Calumet WRP are located in the Secondary Contact Waters of the Calumet River System. Fifty water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations. The following 13 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- dissolved oxygen, pH, total alkalinity, nitrite plus nitrate nitrogen, total solids, total dissolved solids, sulfate, total phosphorus, total fluoride, total organic carbon, fecal coliform, total calcium, and hardness.

All parameters had significantly higher means downstream than upstream except dissolved oxygen and pH, which had higher means upstream than downstream.

John E. Egan Water Reclamation Plant. Both the upstream and downstream sampling locations (79 and 18, respectively) of the John E. Egan WRP are located in the General Use Waters of the Des Plaines River System. Forty-eight water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations.

The following seven water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- total alkalinity, nitrite plus nitrate nitrogen, total suspended solids, total fluoride, gross beta radioactivity, total barium, and total boron.

Four parameters (nitrite plus nitrate nitrogen, total fluoride, gross beta radioactivity, and total boron) had significantly higher means downstream than upstream. The remaining three parameters (total alkalinity, total suspended solids, and total barium) had significantly higher means upstream than downstream.

James C. Kirie Water Reclamation Plant. Both the upstream and downstream sampling locations (77 and 78, respectively) of the James C. Kirie WRP are located in the General Use Waters of the Des Plaines River System. Forty-two water quality parameters were suited for comparison of mean concentrations between upstream and downstream locations. The following nine water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- pH, ammonia nitrogen, nitrite plus nitrate nitrogen, total suspended solids, sulfate, total phosphorus, gross beta radioactivity, total barium, and total manganese.

Five parameters (ammonia nitrogen, nitrite plus nitrate nitrogen, sulfate, total phosphorus, and gross beta radioactivity) had significantly higher means downstream than upstream. The remaining four parameters (pH, total suspended solids, total barium, and total manganese) had significantly higher means upstream than downstream.

Hanover Park Water Reclamation Plant. Both the upstream and downstream sampling locations (110 and 111, respectively) of the Hanover Park WRP are located in the General Use Waters of the Des Plaines River System. Forty-two water quality parameters and were suited for comparison of mean concentrations between upstream and downstream locations.

The following 12 water quality parameters' mean concentrations were significantly different between upstream and downstream locations:

- dissolved oxygen, total alkalinity, nitrite plus nitrate nitrogen, total suspended solids, total phosphorus, total fluoride, total organic carbon, gross beta radioactivity, total barium, total boron, total manganese, and soluble zinc.

Eight parameters (dissolved oxygen, nitrite plus nitrate nitrogen, total suspended solids, total phosphorus, total fluoride, gross beta radioactivity, total boron, and soluble zinc) had significantly higher means downstream than upstream. The remaining four parameters (total alkalinity, total organic carbon, total barium, and total manganese) had significantly higher means upstream than downstream.

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APPENDIX AI
DIRECTORY OF SAMPLING STATIONS IN WATER QUALITY MONITORING NETWORK

TABLE AI-1: DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

<u>Sampling Station</u>		<u>Water</u>	<u>River</u>
No.	Name	Use ¹	System
1	Wilmette Harbor*	GEN	Chicago
2	Outer Drive Bridge*	GEN	Chicago
3	South District Water Filtration Plant*	GEN	Chicago
4	O'Brien Locks*	SEC	Chicago
5	Ohio Street*	SEC	Chicago
6	Willow Springs Road*	SEC	Chicago
7	Highway 83 and Archer*	SEC	Chicago
9	North Side WRP, Outfall*	EFF	Chicago
10	Southwest WRP, Outfall*	EFF	Chicago
11	Calumet WRP, Outfall*	EFF	Calumet
12	Lake-Cook Road, Buffalo Creek*	GEN	Des Plaines
13	Lake-Cook Road, Des Plaines River*	GEN	Des Plaines
14	Hintz Road, Wheeling Drain Ditch*	GEN	Des Plaines
15	Palatine Road, Des Plaines River*	GEN	Des Plaines
16	Central Road, Des Plaines River*	GEN	Des Plaines
17	Oakton Street, Des Plaines River*	GEN	Des Plaines
18	Devon Avenue, Salt Creek	GEN	Des Plaines
19	Belmont Avenue, Des Plaines River	GEN	Des Plaines
20	Roosevelt Road, Des Plaines River*	GEN	Des Plaines
21	First Avenue, Salt Creek*	GEN	Des Plaines
22	Ogden Avenue, Des Plaines River	GEN	Des Plaines
23	Willow Springs Road, Des Plaines River	GEN	Des Plaines
24	Wolf Road, Salt Creek*	GEN	Des Plaines
25	Grand Avenue, Des Plaines River*	GEN	Des Plaines
26	Lawrence Avenue, Des Plaines River*	GEN	Des Plaines
27	York Road, Salt Creek*	GEN	Des Plaines
28	Highway 83 and Des Plaines River*	GEN	Des Plaines
29	Stephen Street, Des Plaines River*	GEN	Des Plaines
30	Lake-Cook Road, West Fork North Branch*	GEN	Chicago
31	Lake-Cook Road, Middle Fork North Branch*	GEN	Chicago
32	Lake-Cook Road, Skokie River*	GEN	Chicago
33	East Lake Avenue, Middle Fork North Branch Chicago River*	GEN	Chicago
34	Dempster Street, North Branch Chicago River*	GEN	Chicago
35	Central Street, North Shore Channel*	GEN	Chicago
36	Touhy Avenue, North Shore Channel	SEC	Chicago

TABLE AI-1 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

<u>Sampling Station</u>		<u>Water</u>	<u>River</u>
No.	Name	Use ¹	System
37	Wilson Avenue, North Branch Chicago River*	SEC	Chicago
38	Ohio Street, North Branch, Chicago River*	SEC	Chicago
39	Madison Street, South Branch Chicago River*	SEC	Chicago
40	Damen Avenue, Chicago Sanitary and Ship Canal*	SEC	Chicago
41	Harlem Avenue, Chicago Sanitary and Ship Canal	SEC	Chicago
42	Route 83, Chicago Sanitary and Ship Canal*	SEC	Chicago
43	Route 83, Calumet-Sag Channel	SEC	Calumet
44	Howard Street, North Shore Channel*	SEC	Chicago
45	Lawrence Avenue, North Branch Chicago River*	SEC	Chicago
46	Grand Avenue, North Branch Chicago River*	SEC	Chicago
47	Randolph Street, South Branch Chicago River*	SEC	Chicago
48	Stephen Street, Chicago Sanitary and Ship Canal	SEC	Chicago
49	Ewing Avenue, Calumet River*	GEN	Calumet
50	Burnham Avenue, Wolf Lake*	GEN	Calumet
51	IHB Railroad Bridge, Grand Calumet River*	SEC	Calumet
52	Wentworth Avenue, Little Calumet River*	GEN	Calumet
53	Wentworth Avenue, North Creek*	GEN	Calumet
54	Joe Orr Road, Thorn Creek*	GEN	Calumet
55	130th Street, Calumet River*	GEN	Calumet
56	Indiana Avenue, Little Calumet River	SEC	Calumet
57	Ashland Avenue, Little Calumet River	GEN	Calumet
58	Ashland Avenue, Calumet-Sag Channel*	SEC	Calumet
59	Cicero Avenue, Calumet-Sag Channel	SEC	Calumet
60	Crawford Avenue, Calumet-Sag Channel*	SEC	Calumet
61	Ashland Avenue, South Branch Chicago River*	SEC	Chicago
62	Stephen Street, Chicago Sanitary and Ship Canal*	SEC	Chicago
63	Longmeadow Lane, West Branch DuPage River*	GEN	Des Plaines
64	Lake Street, West Branch DuPage River*	GEN	Des Plaines
65	Oltendorf Road, Poplar Creek*	GEN	Des Plaines
66	Bartlett Road, Poplar Creek*	GEN	Des Plaines
67	171st Street, Union Drainage Ditch*	GEN	Calumet
68	Park Street, Union Drainage Ditch*	GEN	Calumet
69	Lincoln Highway, Deer Creek*	GEN	Calumet
70	Joe Orr Road, Deer Creek*	GEN	Calumet
71	Route 83, Chicago Sanitary and Ship Canal*	SEC	Chicago

TABLE AI-1 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

<u>Sampling Station</u>		<u>Water</u>	<u>River</u>
No.	Name	Use ¹	System
72	Stephen Street, Chicago Sanitary and Ship Canal*	SEC	Chicago
73	Diversey Parkway, North Branch Chicago River	SEC	Chicago
74	Lake Shore Drive, Chicago River*	GEN	Chicago
75	Cicero Avenue, Chicago Sanitary and Ship Canal	SEC	Chicago
76	Halsted Street, Little Calumet River	SEC	Calumet
77	Elmhurst Road, Higgins Creek	GEN	Des Plaines
78	Wille Road, Higgins Creek	GEN	Des Plaines
79	Higgins Road, Salt Creek	GEN	Des Plaines
80	Arlington Heights Road, Salt Creek*	GEN	Des Plaines
81	Lockport Forebay*	SEC	Chicago
82	Lockport Trebler, Chicago Sanitary and Ship Canal*	SEC	Chicago
83	Lockport Solenoid*	SEC	Chicago
84	Lockport 16th Street Bridge*	SEC	Chicago
85	Dempster Street, North Shore Channel*	SEC	Chicago
86	Burnham Avenue, Grand Calumet River	SEC	Calumet
89	Walnut Lane, West Branch DuPage River*	GEN	Des Plaines
90	Route 19, Poplar Creek*	GEN	Des Plaines
91	Material Service Road, Des Plaines River	GEN	Des Plaines
92	Lockport Forebay, Chicago Sanitary and Ship Canal	SEC	Chicago
93	Jefferson Street, Joliet, Des Plaines River*	SEC	Des Plaines
94	Empress Casino, Des Plaines River*	SEC	Des Plaines
95	I-55, Des Plaines River*	SEC	Des Plaines
96	Albany Avenue, North Branch Chicago River	GEN	Chicago
97	170th Street, Thorn Creek*	GEN	Calumet
98	Halsted Street, South Branch Chicago River*	SEC	Chicago
99	Archer Avenue, South Fork South Branch Chicago River	SEC	Chicago
100	Wells Street, Chicago River	GEN	Chicago
101	Foster Avenue, North Shore Channel*	SEC	Chicago
102	Oakton Street, North Shore Channel*	GEN	Chicago
103	Golf Road, West Fork North Branch Chicago River*	GEN	Chicago
104	Glenview Road, North Branch Chicago River*	GEN	Chicago
105	Frontage Road, Skokie River*	GEN	Chicago
106	Dundee Road, West Fork North Branch Chicago River*	GEN	Chicago
107	Western Avenue, Chicago Sanitary and Ship Canal*	SEC	Chicago
108	Loomis Street, South Branch Chicago River	SEC	Chicago

TABLE AI-1 (Continued): DIRECTORY OF SAMPLING STATIONS
IN WATER QUALITY NETWORK

<u>Sampling Station</u>		<u>Water</u>	<u>River</u>
No.	Name	Use ¹	System
109	Brookfield Avenue, Salt Creek	GEN	Des Plaines
110	Springinsguth Road, West Branch DuPage River	GEN	Des Plaines
111	Arlington Drive, West Branch DuPage River	GEN	Des Plaines
112	Dempster Street, North Shore Channel	GEN	Chicago

¹GEN = General Use, SEC = Secondary Contact, EFF = Effluent.

*Excluded in 2014 Sampling.

APPENDIX AII

ANNUAL MEAN AND MEAN HISTORY OF WATER QUALITY PARAMETERS

**TABLE AII-1: BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	2.00	
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.00	
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.00	3.33	
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	11.00	6.42	
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.00	5.92	
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	10.00	5.67	
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.00	3.25	
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	3.17	
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.33	
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	2.17	
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	2.92	
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	2.92	
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.08	
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	2.42	
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	3.75	
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	5.00	3.17	
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	2.83	
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.83	
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.14	1.50	
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.10	
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.78	
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	1.75	
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.40	
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	0.83	
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.55	
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.89	
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-2: CARBONACEOUS BIOCHEMICAL OXYGEN DEMAND MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.86	
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.00	
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	2.08	
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	2.50	
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	1.92	
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	1.67	
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	1.33	
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.50	1.50	
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.11	
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.58	
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	1.42	
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	1.25	
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.08	
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	1.42	
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.67	
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.50	
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.00	0.50	
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	0.58	
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.71	0.61	
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.50	
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.27	
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	1.08	
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.40	
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	3.00	1.08	
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	4.00	0.83	
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.60	
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-3: DISSOLVED OXYGEN MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	7.32	7.83	8.03	7.78	6.93	8.75	8.10	10.30	8.02
103 Golf Road, West Fork North Branch Chicago River	ND	ND	7.99	7.75	7.70	7.27	7.21	7.31	8.58	7.38	7.64
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	6.45	7.13	6.18	7.88	6.55	6.16	7.15	5.42	6.46
104 Glenview Road, North Branch Chicago River	ND	ND	7.60	7.68	8.20	7.53	7.39	6.90	7.98	8.12	8.03
32 Lake-Cook Road, Skokie River	ND	ND	6.88	7.29	7.23	7.75	7.35	7.21	7.75	7.75	7.73
105 Frontage Road, Skokie River	ND	ND	8.41	7.40	7.63	7.77	7.61	7.76	9.27	8.79	8.33
34 Dempster Street, North Branch Chicago River	ND	ND	8.30	7.28	8.25	7.88	7.01	6.52	8.23	7.16	8.21
96 Albany Avenue, North Branch Chicago River	8.56	8.51	8.02	8.68	8.47	8.64	8.22	8.19	9.18	8.63	9.12
35 Central Street, North Shore Channel	ND	ND	8.52	7.91	8.39	9.23	7.30	8.23	8.63	7.50	7.53
112 Dempster Street, North Shore Channel	8.14	7.63	8.04	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	7.09	7.39	7.02	8.19	7.57	7.76	8.73	7.95	7.26
36 Touhy Avenue, North Shore Channel	7.12	7.58	6.96	7.29	7.15	8.29	7.83	7.65	7.93	7.98	8.10
101 Foster Avenue, North Shore Channel	ND	ND	6.53	6.99	7.18	7.67	7.21	7.13	7.20	7.30	7.58
37 Wilson Avenue, North Branch Chicago River	ND	ND	7.13	7.23	7.51	8.43	7.43	7.58	7.83	7.03	7.55
73 Diversey Parkway, North Branch Chicago River	6.73	6.85	6.73	6.63	6.91	7.91	6.94	6.75	7.25	6.44	6.71
46 Grand Avenue, North Branch Chicago River	ND	ND	6.94	6.28	6.57	7.25	6.73	6.67	6.85	6.30	6.47
74 Lake Shore Drive, Chicago River	ND	ND	7.80	8.17	9.05	9.27	8.76	9.00	9.19	9.08	8.50
100 Wells Street, Chicago River	8.06	7.68	6.74	7.36	8.11	8.57	8.03	8.39	8.68	8.96	8.56
39 Madison Street, South Branch Chicago River	ND	ND	6.53	7.23	7.36	7.27	7.53	7.45	7.79	7.85	6.86
108 Loomis Street, South Branch Chicago River	7.08	7.42	6.18	6.77	7.51	6.84	6.89	7.21	7.81	7.78	7.23
99 Archer Avenue, South Fork South Branch Chicago River	5.51	4.49	5.47	5.11	5.60	4.76	5.33	6.19	6.00	6.65	5.63
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	5.29	6.18	7.02	6.97	6.49	7.25	7.44	7.59	6.71
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	6.35	5.70	5.97	5.89	6.02	6.43	5.32	6.22	6.04	6.11	5.77
41 Harlem Avenue, Chicago Sanitary and Ship Canal	7.05	7.03	6.78	6.38	7.56	6.68	7.13	6.59	7.30	7.29	6.92
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	5.71	5.87	5.93	6.31	6.23	6.00	5.46	5.90	6.06
48 Stephen Street, Chicago Sanitary and Ship Canal	6.17	6.96	6.03	5.89	6.48	7.00	6.78	5.98	5.43	6.25	6.25
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.51	6.11	5.75	5.54	5.69	6.28	6.19	6.07	5.68	5.86	5.67
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	9.22	9.43	8.90	9.07	8.84	9.66	9.50	9.99	9.24
50 Burnham Avenue, Wolf Lake	ND	ND	8.00	8.67	8.12	8.45	8.58	8.79	9.63	9.25	9.79
55 130th Street, Calumet River	8.02	ND	8.83	8.86	9.16	8.43	8.22	8.91	8.45	9.26	9.13
86 Burnham Avenue, Grand Calumet River	3.63	4.44	4.23	4.57	4.89	4.66	6.51	4.21	6.20	4.80	4.93
56 Indiana Avenue, Little Calumet River	8.75	7.66	7.72	7.71	8.71	8.45	7.89	7.49	9.61	8.83	7.71
76 Halsted Street, Little Calumet River	7.27	7.15	6.64	6.78	6.89	7.14	6.30	6.35	6.27	6.98	7.13
52 Wentworth Avenue, Little Calumet River	5.92	ND	7.10	7.21	7.08	7.10	6.22	6.43	7.49	6.45	6.40
54 Joe Orr Road, Thorn Creek	ND	ND	7.80	8.08	7.72	8.04	8.21	8.19	7.72	7.65	8.57
97 170th Street, Thorn Creek	6.13	ND	7.18	7.43	7.87	7.24	7.01	7.34	7.15	7.85	8.37
57 Ashland Avenue, Little Calumet River	7.52	7.97	6.82	7.27	7.46	6.79	6.54	6.50	7.27	6.35	6.99
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	6.19	7.19	7.44	7.52	6.63	6.54	7.15	7.23	7.25
59 Cicero Avenue, Calumet-Sag Channel	6.96	6.10	6.54	6.66	6.20	7.02	6.92	6.79	6.24	6.56	6.80
43 Route 83, Calumet-Sag Channel	6.66	6.55	6.58	6.98	6.49	6.72	7.22	6.51	6.70	7.38	6.39
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	9.17	8.45	8.80	8.58	8.61	9.64	9.78	8.47	10.16
110 Springinguth Road, West Branch DuPage River	5.98	6.04	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	7.99	7.78	8.53	8.75	8.35	8.68	8.28	7.78	8.03
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	8.42	9.03	8.65	8.91	8.68	8.61	7.41
111 Arlington Drive, West Branch DuPage River	8.80	7.94	8.33	8.08	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	8.73	6.84	7.76	7.09	6.88	7.41	7.18	7.80	8.78	6.24	8.97
80 Arlington Heights Road, Salt Creek	ND	ND	8.40	7.94	8.43	8.11	7.83	8.78	8.77	8.48	8.01
18 Devon Avenue, Salt Creek	8.10	7.86	7.82	8.06	8.25	8.09	8.48	8.94	8.89	9.04	8.33
24 Wolf Road, Salt Creek	ND	ND	8.17	8.64	7.41	8.82	8.27	8.23	8.51	8.61	8.19
109 Brookfield Avenue, Salt Creek	7.74	7.97	7.98	8.07	7.37	8.39	7.35	7.59	7.58	7.81	8.02
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	8.58	9.43	8.71	8.94	8.70	8.55	8.82	8.66	8.43	9.15	8.80
78 Wille Road, Higgins Creek	8.98	8.16	8.88	8.65	8.98	8.81	8.46	8.76	9.04	8.88	9.15
12 Lake-Cook Road, Buffalo Creek	8.48	6.83	9.28	9.44	7.31	9.26	8.84	8.83	8.69	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	8.79	8.35	8.11	8.43	8.00	8.55	8.76	8.59	8.83
17 Oakton Street, Des Plaines River	ND	ND	8.24	8.83	8.58	9.38	8.34	8.39	8.35	8.39	8.83
19 Belmont Avenue, Des Plaines River	8.49	8.08	7.82	8.44	8.41	8.34	7.50	7.67	8.43	7.55	7.91
20 Roosevelt Road, Des Plaines River	ND	ND	8.66	8.26	7.91	8.60	7.55	7.62	8.16	7.57	8.13
22 Ogden Avenue, Des Plaines River	8.88	8.73	8.40	9.19	7.89	9.14	8.24	8.94	9.00	9.13	9.27
23 Willow Springs Road, Des Plaines River	8.97	7.74	8.73	9.05	8.07	8.80	8.00	8.65	8.24	9.08	9.19
29 Stephen Street, Des Plaines River	ND	ND	9.80	9.18	8.37	9.97	8.94	8.56	8.90	9.91	9.62
91 Material Service Road, Des Plaines River	10.46	9.32	9.68	9.05	9.04	9.33	8.78	9.38	9.68	10.31	10.65

ND = No Data.

TABLE AII-4: TEMPERATURE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (°C)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	11.9	12.7	13.1	11.3	13.6	9.8	13.2	12.4	12.1
103 Golf Road, West Fork North Branch Chicago River	ND	ND	14.6	14.8	15.7	13.4	13.8	15.4	13.4	15.2	16.7
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	16.9	14.2	14.8	12.4	12.7	15.7	12.6	16.1	15.3
104 Glenview Road, North Branch Chicago River	ND	ND	14.2	13.4	12.7	12.5	11.5	14.8	12.9	15.1	13.9
32 Lake-Cook Road, Skokie River	ND	ND	14.1	15.2	15.2	13.4	12.3	16.2	12.9	17.1	15.2
105 Frontage Road, Skokie River	ND	ND	15.2	13.8	13.5	12.3	12.3	14.9	13.1	14.4	13.9
34 Dempster Street, North Branch Chicago River	ND	ND	13.3	13.7	12.7	11.9	13.5	14.7	12.8	16.7	15.3
96 Albany Avenue, North Branch Chicago River	13.9	11.8	14.7	14.1	14.5	12.1	12.6	15.1	13.0	15.5	14.3
35 Central Street, North Shore Channel	ND	ND	19.5	17.2	16.9	14.9	15.9	15.5	18.6	17.9	17.4
112 Dempster Street, North Shore Channel	15.5	15.3	12.5	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	16.5	15.0	15.4	13.2	14.7	14.3	15.0	16.1	12.8
36 Touhy Avenue, North Shore Channel	14.7	14.7	16.9	15.1	16.2	13.9	14.8	17.0	15.6	16.4	14.7
101 Foster Avenue, North Shore Channel	ND	ND	16.0	15.3	15.3	14.8	14.7	16.7	15.8	16.8	15.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	15.4	14.7	15.7	13.7	14.2	15.7	15.2	17.5	17.3
73 Diversey Parkway, North Branch Chicago River	14.7	13.9	15.7	15.3	15.0	13.8	13.5	15.5	15.0	17.4	16.9
46 Grand Avenue, North Branch Chicago River	ND	ND	16.5	14.8	14.6	13.4	13.6	16.5	14.9	17.5	16.7
74 Lake Shore Drive, Chicago River	ND	ND	15.0	13.9	13.5	13.7	14.6	14.5	14.0	15.2	17.5
100 Wells Street, Chicago River	13.3	13.6	16.4	14.2	13.9	13.7	12.8	14.5	13.9	13.4	14.4
39 Madison Street, South Branch Chicago River	ND	ND	15.9	10.7	13.9	13.7	12.4	14.1	14.0	13.3	14.3
108 Loomis Street, South Branch Chicago River	12.1	13.8	17.8	15.4	15.7	16.4	15.3	16.3	16.7	15.5	18.4
99 Archer Avenue, South Fork South Branch Chicago River	12.9	15.9	16.8	14.9	12.8	15.4	14.6	16.6	18.9	15.8	16.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	18.1	15.1	16.1	15.4	14.4	16.3	16.6	15.5	16.9
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	14.3	14.3	17.8	18.4	19.3	17.3	17.9	20.2	17.7	20.0	18.1
41 Harlem Avenue, Chicago Sanitary and Ship Canal	15.7	14.8	18.4	16.6	17.2	16.4	16.8	16.3	16.4	17.3	17.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	18.7	17.2	16.1	16.5	17.7	18.7	18.4	17.7	15.3
48 Stephen Street, Chicago Sanitary and Ship Canal	14.8	14.4	17.3	15.8	16.5	15.8	16.8	17.4	16.3	16.1	15.8
92 Lockport Forebay, Chicago Sanitary and Ship Canal	15.8	16.5	18.4	17.0	18.0	17.4	17.9	19.8	19.4	19.3	18.1
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	14.8	12.1	17.3	14.0	15.0	16.3	14.0	16.2	14.2
50 Burnham Avenue, Wolf Lake	ND	ND	15.0	13.7	15.6	17.0	11.5	16.3	13.9	14.5	13.0
55 130th Street, Calumet River	18.0	ND	14.5	14.2	16.0	16.6	14.6	17.6	13.5	15.8	15.6
86 Burnham Avenue, Grand Calumet River	15.2	14.7	13.7	14.2	18.0	17.8	11.9	16.8	13.7	16.2	15.4
56 Indiana Avenue, Little Calumet River	16.6	14.9	15.1	15.4	17.6	17.1	16.2	18.6	14.6	16.0	16.7
76 Halsted Street, Little Calumet River	13.7	15.0	16.3	14.6	16.6	14.4	14.1	17.2	15.3	16.4	13.5
52 Wentworth Avenue, Little Calumet River	17.0	ND	13.7	14.4	15.2	15.9	13.2	14.9	14.1	14.5	14.3
54 Joe Orr Road, Thorn Creek	ND	ND	15.2	15.0	15.0	16.7	13.9	16.3	15.1	15.0	15.3
97 170th Street, Thorn Creek	17.8	ND	14.2	14.5	15.0	16.4	12.1	15.4	14.7	13.4	14.7
57 Ashland Avenue, Little Calumet River	14.1	13.8	14.8	14.5	14.4	16.5	15.4	15.3	15.7	15.7	16.2
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	15.9	14.4	15.5	14.3	13.8	16.3	14.3	15.8	14.2
59 Cicero Avenue, Calumet-Sag Channel	15.9	13.9	15.2	15.0	16.0	15.9	14.2	16.5	16.6	15.0	16.6
43 Route 83, Calumet-Sag Channel	15.5	14.1	17.2	15.6	15.8	16.2	15.4	17.3	15.1	16.7	20.0
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	11.8	14.0	15.4	13.6	14.5	14.3	13.2	15.1	15.0
110 Springinguth Road, West Branch DuPage River	17.3	15.5	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	14.3	15.6	16.3	15.7	16.3	15.7	13.8	16.9	16.1
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	12.1	13.5	15.3	14.8	14.5	16.5	15.9
111 Arlington Drive, West Branch DuPage River	14.2	13.4	15.5	15.9	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	16.5	17.5	15.7	16.0	18.9	16.7	18.2	15.8	18.6	19.2	15.0
80 Arlington Heights Road, Salt Creek	ND	ND	13.8	15.3	15.0	13.6	15.0	15.0	14.6	16.4	15.9
18 Devon Avenue, Salt Creek	14.5	14.5	15.2	14.9	13.4	14.0	14.6	14.3	14.0	15.3	15.4
24 Wolf Road, Salt Creek	ND	ND	13.4	14.5	11.3	12.1	14.6	14.6	13.5	14.8	16.2
109 Brookfield Avenue, Salt Creek	16.6	13.7	14.9	14.7	13.8	12.3	15.2	14.5	12.8	14.9	15.1
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	16.3	16.0	13.2	14.6	14.8	12.2	10.5	14.0	13.3	12.3	12.7
78 Wille Road, Higgins Creek	15.0	15.3	15.4	16.3	17.7	13.8	17.6	16.2	16.1	17.1	15.6
12 Lake-Cook Road, Buffalo Creek	18.6	19.2	11.0	12.9	14.9	10.5	13.9	14.2	11.1	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	11.8	14.0	14.1	11.1	14.7	13.1	12.9	15.8	14.1
17 Oakton Street, Des Plaines River	ND	ND	13.5	14.5	15.1	12.8	15.8	14.4	13.6	15.9	15.2
19 Belmont Avenue, Des Plaines River	14.6	13.9	15.5	14.3	15.0	11.8	15.3	14.8	14.2	15.3	16.2
20 Roosevelt Road, Des Plaines River	ND	ND	14.4	15.1	15.3	13.4	15.7	15.2	13.8	15.4	15.7
22 Ogden Avenue, Des Plaines River	16.4	12.0	14.5	14.5	13.0	11.8	14.9	14.4	13.0	15.1	16.5
23 Willow Springs Road, Des Plaines River	16.5	14.1	15.5	14.5	14.1	12.1	15.2	15.7	12.7	14.7	16.1
29 Stephen Street, Des Plaines River	ND	ND	13.5	15.1	13.5	12.6	14.3	15.5	13.4	15.1	17.2
91 Material Service Road, Des Plaines River	15.4	12.7	15.7	15.2	14.0	11.7	14.7	15.8	13.8	15.0	17.1

ND = No Data.

TABLE AII-5: pH MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	6.95	7.14	7.25	7.18	7.52	7.64	7.22	7.53	7.33
103 Golf Road, West Fork North Branch Chicago River	ND	ND	7.40	7.59	7.63	7.49	7.44	7.50	7.47	7.42	7.72
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	7.40	7.54	7.61	7.60	7.64	7.67	7.47	7.26	7.32
104 Glenview Road, North Branch Chicago River	ND	ND	7.89	7.73	7.71	7.76	7.86	7.85	7.71	7.22	7.45
32 Lake-Cook Road, Skokie River	ND	ND	7.59	7.69	7.70	7.66	7.74	7.85	7.66	7.19	7.34
105 Frontage Road, Skokie River	ND	ND	7.73	7.66	7.56	7.64	7.77	7.88	7.68	7.19	7.47
34 Dempster Street, North Branch Chicago River	ND	ND	7.77	7.72	7.70	7.78	7.61	7.67	7.74	7.45	7.72
96 Albany Avenue, North Branch Chicago River	7.69	7.42	7.64	7.67	7.94	7.88	7.80	7.77	7.59	7.30	7.53
35 Central Street, North Shore Channel	ND	ND	7.71	7.73	7.62	7.83	7.80	7.78	7.70	7.65	7.89
112 Dempster Street, North Shore Channel	7.64	6.97	6.71	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	7.34	7.49	7.57	7.67	7.69	7.58	7.56	7.35	7.73
36 Touhy Avenue, North Shore Channel	7.12	7.11	7.09	7.21	7.30	7.33	7.40	7.40	7.23	7.14	7.41
101 Foster Avenue, North Shore Channel	ND	ND	7.12	7.14	7.11	7.33	7.31	7.25	7.13	7.18	7.27
37 Wilson Avenue, North Branch Chicago River	ND	ND	7.43	7.38	7.35	7.54	7.40	7.44	7.39	7.32	7.59
73 Diversey Parkway, North Branch Chicago River	7.24	7.38	7.30	7.26	7.31	7.30	7.42	7.21	7.36	7.23	7.37
46 Grand Avenue, North Branch Chicago River	ND	ND	7.38	7.42	7.39	7.49	7.43	7.45	7.37	7.21	7.47
74 Lake Shore Drive, Chicago River	ND	ND	6.96	7.10	7.39	7.49	7.64	7.60	7.75	7.52	7.73
100 Wells Street, Chicago River	7.24	6.90	6.98	7.13	7.38	7.68	7.62	7.68	7.72	7.44	7.49
39 Madison Street, South Branch Chicago River	ND	ND	7.32	7.10	7.23	7.45	7.42	7.65	7.49	7.41	7.31
108 Loomis Street, South Branch Chicago River	7.28	7.16	7.34	7.40	7.33	7.42	7.59	7.50	7.46	7.44	7.30
99 Archer Avenue, South Fork South Branch Chicago River	7.10	7.14	7.25	7.28	7.34	7.25	7.42	7.45	7.38	7.27	7.27
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	7.38	7.40	7.40	7.46	7.54	7.49	7.46	7.39	7.40
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	7.17	6.99	6.93	7.13	7.04	7.14	7.19	7.29	7.22	7.23	7.47
41 Harlem Avenue, Chicago Sanitary and Ship Canal	7.22	7.09	7.10	7.15	7.23	7.24	7.41	7.27	7.20	7.11	7.47
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	7.01	6.81	7.02	6.96	7.10	7.13	6.92	7.08	7.40
48 Stephen Street, Chicago Sanitary and Ship Canal	7.07	7.01	7.12	7.01	7.24	7.28	7.57	7.32	7.08	7.03	7.34
92 Lockport Forebay, Chicago Sanitary and Ship Canal	7.19	7.21	7.22	7.27	7.33	7.39	7.40	7.31	7.29	7.20	7.38
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	7.28	7.08	7.57	7.45	7.45	7.77	7.72	7.48	8.01
50 Burnham Avenue, Wolf Lake	ND	ND	7.91	7.65	7.74	7.81	8.04	8.29	8.26	7.65	7.82
55 130th Street, Calumet River	7.61	ND	7.76	7.77	7.86	7.84	7.92	7.85	7.94	7.64	7.78
86 Burnham Avenue, Grand Calumet River	7.26	7.26	7.19	7.34	7.27	7.35	7.69	7.64	7.43	7.30	7.51
56 Indiana Avenue, Little Calumet River	7.67	7.73	7.28	7.22	7.57	7.49	7.49	7.65	7.81	7.06	7.67
76 Halsted Street, Little Calumet River	7.23	7.22	7.22	7.09	7.30	7.31	7.34	7.40	7.51	7.11	7.40
52 Wentworth Avenue, Little Calumet River	7.48	ND	7.67	7.42	7.63	7.77	7.86	7.77	7.75	7.16	7.43
54 Joe Orr Road, Thorn Creek	ND	ND	7.03	7.05	7.27	7.03	7.32	7.17	7.32	7.10	7.38
97 170th Street, Thorn Creek	7.57	ND	7.59	7.45	7.66	7.76	7.83	7.71	7.70	6.96	7.44
57 Ashland Avenue, Little Calumet River	7.49	7.61	7.75	7.58	7.60	7.78	7.79	7.71	7.74	7.07	7.42
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	7.40	7.28	7.38	7.48	7.44	7.42	7.40	6.91	7.33
59 Cicero Avenue, Calumet-Sag Channel	7.26	7.29	7.04	7.32	7.48	7.42	7.46	7.39	7.38	7.04	7.40
43 Route 83, Calumet-Sag Channel	7.16	7.02	7.19	7.41	7.47	7.55	7.70	7.51	7.55	7.25	7.46
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	7.76	7.95	7.83	7.91	7.88	7.95	7.80	7.70	7.65
110 Springinsguth Road, West Branch DuPage River	7.55	7.36	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	7.54	7.54	7.51	7.48	7.58	7.59	7.43	7.40	7.44
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	7.71	7.77	7.74	7.81	7.64	7.57	7.48
111 Arlington Drive, West Branch DuPage River	7.24	7.41	7.69	7.73	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	7.65	7.10	7.38	7.42	7.51	7.77	7.57	7.80	7.94	7.39	7.54
80 Arlington Heights Road, Salt Creek	ND	ND	7.44	7.54	7.52	7.46	7.39	7.59	7.50	7.45	7.42
18 Devon Avenue, Salt Creek	7.25	7.03	7.34	7.62	7.60	7.55	7.51	7.63	7.55	7.44	7.35
24 Wolf Road, Salt Creek	ND	ND	7.00	7.28	7.48	7.30	7.41	7.52	7.31	7.30	7.67
109 Brookfield Avenue, Salt Creek	7.60	7.13	7.28	7.68	7.58	7.69	7.54	7.72	7.40	7.32	7.56
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	8.02	7.95	7.70	7.51	7.68	7.76	7.88	7.80	7.40	7.39	7.80
78 Wille Road, Higgins Creek	7.36	7.26	7.58	7.65	7.61	7.58	7.63	7.67	7.54	7.37	7.66
12 Lake-Cook Road, Buffalo Creek	7.76	7.61	7.49	7.56	7.47	7.37	7.80	7.70	7.73	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	7.91	7.73	7.58	7.72	7.89	7.69	7.68	7.44	7.77
17 Oakton Street, Des Plaines River	ND	ND	7.81	7.85	7.74	7.78	8.01	7.79	7.57	7.44	7.63
19 Belmont Avenue, Des Plaines River	7.67	7.49	7.70	7.88	7.82	7.82	7.98	7.83	7.67	7.45	7.62
20 Roosevelt Road, Des Plaines River	ND	ND	7.91	7.86	7.85	7.91	8.02	7.84	7.89	7.49	7.67
22 Ogden Avenue, Des Plaines River	7.88	7.43	7.66	7.88	7.81	7.72	7.62	7.96	7.50	7.49	7.63
23 Willow Springs Road, Des Plaines River	7.99	7.74	7.75	7.93	7.86	7.91	7.86	7.79	7.62	7.62	7.63
29 Stephen Street, Des Plaines River	ND	ND	8.03	7.78	7.86	7.90	7.92	7.72	7.64	7.55	7.51
91 Material Service Road, Des Plaines River	8.00	7.75	8.12	7.89	7.97	8.13	8.04	7.98	7.87	7.74	7.65

ND = No Data.

TABLE AII-6: TOTAL ALKALINITY MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	181	178	158	173	171	163	147	152	178
103 Golf Road, West Fork North Branch Chicago River	ND	ND	204	192	181	180	165	186	178	172	179
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	215	191	192	196	177	205	185	199	196
104 Glenview Road, North Branch Chicago River	ND	ND	195	169	171	184	168	173	165	156	182
32 Lake-Cook Road, Skokie River	ND	ND	218	204	196	203	188	215	184	183	209
105 Frontage Road, Skokie River	ND	ND	196	166	170	187	170	168	164	154	178
34 Dempster Street, North Branch Chicago River	ND	ND	207	179	183	180	165	175	170	164	175
96 Albany Avenue, North Branch Chicago River	181	151	177	187	172	186	164	174	173	167	169
35 Central Street, North Shore Channel	ND	ND	141	121	118	119	113	121	117	115	116
112 Dempster Street, North Shore Channel	131	123	139	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	144	133	131	136	120	133	134	126	137
36 Touhy Avenue, North Shore Channel	150	131	135	149	136	156	145	142	144	136	151
101 Foster Avenue, North Shore Channel	ND	ND	143	146	139	149	145	142	145	135	144
37 Wilson Avenue, North Branch Chicago River	ND	ND	145	152	139	149	146	145	146	138	159
73 Diversey Parkway, North Branch Chicago River	158	132	139	153	149	152	147	147	146	135	156
46 Grand Avenue, North Branch Chicago River	ND	ND	157	155	145	150	141	147	147	144	156
74 Lake Shore Drive, Chicago River	ND	ND	113	123	110	118	111	124	120	120	119
100 Wells Street, Chicago River	129	131	133	136	119	130	125	125	127	123	125
39 Madison Street, South Branch Chicago River	ND	ND	149	149	134	150	134	135	142	137	137
108 Loomis Street, South Branch Chicago River	148	137	138	144	135	149	134	136	143	142	136
99 Archer Avenue, South Fork South Branch Chicago River	152	140	134	152	146	149	143	135	147	138	142
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	149	146	136	152	136	136	142	138	138
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	152	137	135	147	140	145	141	137	158	140	142
41 Harlem Avenue, Chicago Sanitary and Ship Canal	153	135	126	144	138	144	134	131	130	126	132
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	141	151	143	149	132	138	139	138	137
48 Stephen Street, Chicago Sanitary and Ship Canal	159	178	147	156	145	146	137	142	146	142	143
92 Lockport Forebay, Chicago Sanitary and Ship Canal	157	142	143	150	146	149	137	146	143	138	140
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	109	110	107	113	104	113	113	109	111
50 Burnham Avenue, Wolf Lake	ND	ND	106	99	103	102	98	104	100	109	111
55 130th Street, Calumet River	ND	ND	117	112	108	117	105	114	112	112	116
86 Burnham Avenue, Grand Calumet River	233	267	260	232	250	225	243	262	248	170	203
56 Indiana Avenue, Little Calumet River	137	139	130	131	120	136	125	137	127	125	129
76 Halsted Street, Little Calumet River	166	160	157	159	147	162	155	162	162	153	159
52 Wentworth Avenue, Little Calumet River	ND	ND	229	171	184	204	216	208	222	175	206
54 Joe Orr Road, Thorn Creek	ND	ND	193	163	178	190	185	177	189	152	183
97 170th Street, Thorn Creek	ND	ND	214	167	163	204	195	176	205	172	186
57 Ashland Avenue, Little Calumet River	179	173	181	166	166	193	192	174	208	168	180
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	172	159	159	163	158	156	167	154	158
59 Cicero Avenue, Calumet-Sag Channel	158	158	160	163	153	165	154	154	171	150	150
43 Route 83, Calumet-Sag Channel	158	161	151	155	158	160	154	151	168	151	153
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	240	218	222	227	211	210	190	188	216
110 Springinguth Road, West Branch DuPage River	213	180	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	168	175	154	179	147	152	160	150	148
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	180	170	145	150	184	133	147
111 Arlington Drive, West Branch DuPage River	157	132	137	162	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	177	144	158	180	135	183	176	159	155	142	197
80 Arlington Heights Road, Salt Creek	ND	ND	165	144	148	152	126	133	142	136	149
18 Devon Avenue, Salt Creek	149	129	139	146	154	149	125	132	142	135	149
24 Wolf Road, Salt Creek	ND	ND	170	157	154	172	141	140	145	134	156
109 Brookfield Avenue, Salt Creek	171	143	148	159	150	169	142	139	144	133	160
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	150	128	159	142	114	149	128	118	121	120	158
78 Wille Road, Higgins Creek	182	162	164	195	176	204	165	175	179	150	192
12 Lake-Cook Road, Buffalo Creek	192	166	230	200	204	211	197	188	181	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	210	189	192	201	199	201	189	179	196
17 Oakton Street, Des Plaines River	ND	ND	205	188	180	194	192	187	179	171	192
19 Belmont Avenue, Des Plaines River	199	164	174	186	171	196	180	179	177	167	189
20 Roosevelt Road, Des Plaines River	ND	ND	198	184	170	189	185	182	172	166	190
22 Ogden Avenue, Des Plaines River	191	157	168	176	169	182	170	164	163	151	176
23 Willow Springs Road, Des Plaines River	196	156	173	175	165	184	171	168	162	154	180
29 Stephen Street, Des Plaines River	ND	ND	193	173	170	180	173	172	169	159	180
91 Material Service Road, Des Plaines River	193	154	175	173	175	184	170	175	173	163	184

ND = No Data.

TABLE AII-7: CHLORIDE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	589	555	470	403	388	297	339	456	552
103 Golf Road, West Fork North Branch Chicago River	ND	ND	440	402	400	321	330	329	344	501	298
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	324	266	304	219	293	286	258	318	205
104 Glenview Road, North Branch Chicago River	ND	ND	305	231	257	222	287	258	222	258	265
32 Lake-Cook Road, Skokie River	ND	ND	295	215	251	196	265	290	214	310	239
105 Frontage Road, Skokie River	ND	ND	243	207	217	208	275	228	207	236	203
34 Dempster Street, North Branch Chicago River	ND	ND	400	247	316	246	265	277	254	337	322
96 Albany Avenue, North Branch Chicago River	380	246	294	273	319	274	345	283	256	346	236
35 Central Street, North Shore Channel	ND	ND	128	63	30	44	90	51	37	35	31
112 Dempster Street, North Shore Channel	75	133	148	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	152	150	106	107	138	133	90	135	104
36 Touhy Avenue, North Shore Channel	200	130	146	221	155	210	168	212	116	150	172
101 Foster Avenue, North Shore Channel	ND	ND	199	214	170	199	175	231	134	165	143
37 Wilson Avenue, North Branch Chicago River	ND	ND	227	223	222	218	216	249	145	209	183
73 Diversey Parkway, North Branch Chicago River	227	172	148	182	199	248	235	190	140	196	193
46 Grand Avenue, North Branch Chicago River	ND	ND	217	182	175	195	248	204	154	186	219
74 Lake Shore Drive, Chicago River	ND	ND	167	150	78	48	60	106	64	62	62
100 Wells Street, Chicago River	114	134	129	155	122	84	148	127	89	109	103
39 Madison Street, South Branch Chicago River	ND	ND	187	247	168	152	191	174	125	156	129
108 Loomis Street, South Branch Chicago River	191	160	151	182	188	152	193	207	143	158	141
99 Archer Avenue, South Fork South Branch Chicago River	203	165	169	177	171	146	194	190	110	150	148
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	218	179	185	154	190	218	137	153	142
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	208	162	167	180	161	155	211	228	136	156	161
41 Harlem Avenue, Chicago Sanitary and Ship Canal	227	162	162	187	188	187	195	267	146	162	167
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	210	202	196	174	214	187	151	170	221
48 Stephen Street, Chicago Sanitary and Ship Canal	216	162	168	194	202	163	199	165	152	164	179
92 Lockport Forebay, Chicago Sanitary and Ship Canal	235	177	151	200	181	170	230	194	158	181	195
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	39	52	35	38	33	46	44	38	31
50 Burnham Avenue, Wolf Lake	ND	ND	103	90	86	79	66	68	47	59	55
55 130th Street, Calumet River	ND	ND	133	107	83	98	104	88	83	75	69
86 Burnham Avenue, Grand Calumet River	100	115	118	59	80	148	134	144	155	137	138
56 Indiana Avenue, Little Calumet River	126	89	110	120	104	100	116	109	98	82	82
76 Halsted Street, Little Calumet River	190	144	150	175	159	150	202	181	153	174	154
52 Wentworth Avenue, Little Calumet River	ND	ND	154	101	122	110	150	132	122	140	160
54 Joe Orr Road, Thorn Creek	ND	ND	195	144	210	145	171	176	183	212	235
97 170th Street, Thorn Creek	ND	ND	234	147	192	163	183	158	182	228	222
57 Ashland Avenue, Little Calumet River	179	172	179	161	182	135	176	171	174	205	200
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	189	173	159	147	207	161	161	180	167
59 Cicero Avenue, Calumet-Sag Channel	168	137	171	190	160	136	170	167	155	171	167
43 Route 83, Calumet-Sag Channel	176	139	153	169	178	139	164	164	150	144	156
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	279	251	273	215	282	277	279	278	241
110 Springinguth Road, West Branch DuPage River	343	238	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	171	204	171	170	196	187	193	181	207
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	340	188	232	235	201	211	198
111 Arlington Drive, West Branch DuPage River	232	191	175	216	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	390	248	346	319	266	258	385	353	287	409	363
80 Arlington Heights Road, Salt Creek	ND	ND	272	298	289	248	389	268	280	323	225
18 Devon Avenue, Salt Creek	338	245	199	293	327	231	384	287	283	320	236
24 Wolf Road, Salt Creek	ND	ND	251	279	313	244	346	275	241	261	250
109 Brookfield Avenue, Salt Creek	265	251	239	279	293	231	321	271	257	258	264
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	572	376	276	285	583	305	548	259	571	478	514
78 Wille Road, Higgins Creek	239	204	181	235	220	233	274	247	217	220	190
12 Lake-Cook Road, Buffalo Creek	275	195	297	258	310	218	357	272	259	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	181	175	185	148	220	184	210	221	176
17 Oakton Street, Des Plaines River	ND	ND	200	196	221	154	238	195	245	251	197
19 Belmont Avenue, Des Plaines River	244	203	187	207	231	173	279	208	250	230	225
20 Roosevelt Road, Des Plaines River	ND	ND	200	214	232	164	285	214	249	260	211
22 Ogden Avenue, Des Plaines River	230	217	202	227	250	173	270	228	244	255	218
23 Willow Springs Road, Des Plaines River	232	220	209	231	239	177	275	238	234	268	222
29 Stephen Street, Des Plaines River	ND	ND	232	225	235	172	290	242	236	255	212
91 Material Service Road, Des Plaines River	253	218	212	226	242	185	284	225	242	249	212

ND = No Data.

TABLE AII-8: TURBIDITY MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (NTU)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	27.3	25.4	18.0	26.9	31.4	29.0	66.6	30.1	49.5
103 Golf Road, West Fork North Branch Chicago River	ND	ND	18.3	14.2	12.4	24.1	18.4	14.1	32.2	25.6	20.1
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	5.0	9.9	10.6	18.3	18.3	14.9	46.2	16.7	22.8
104 Glenview Road, North Branch Chicago River	ND	ND	14.7	14.8	7.6	15.0	16.9	13.7	32.9	15.2	18.2
32 Lake-Cook Road, Skokie River	ND	ND	16.3	12.9	9.2	16.2	18.5	14.6	37.0	16.8	19.8
105 Frontage Road, Skokie River	ND	ND	8.3	11.9	9.5	14.8	13.1	15.6	16.5	13.4	16.7
34 Dempster Street, North Branch Chicago River	ND	ND	13.0	12.5	9.4	17.0	17.8	15.3	28.9	18.9	19.1
96 Albany Avenue, North Branch Chicago River	ND	ND	8.0	10.6	13.1	17.4	20.2	14.6	23.5	16.0	18.3
35 Central Street, North Shore Channel	ND	ND	11.0	6.3	5.5	8.1	9.7	5.1	9.3	5.9	7.3
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	4.3	10.0	14.3	7.9	15.0	10.3	13.2	12.2	11.3
36 Touhy Avenue, North Shore Channel	ND	ND	5.0	4.2	4.0	5.1	4.8	4.2	5.8	6.5	7.6
101 Foster Avenue, North Shore Channel	ND	ND	4.3	5.5	4.6	4.4	5.4	5.1	5.9	7.0	7.5
37 Wilson Avenue, North Branch Chicago River	ND	ND	3.5	6.7	6.6	11.4	8.2	8.2	9.3	9.5	10.5
73 Diversey Parkway, North Branch Chicago River	ND	ND	5.7	8.8	6.5	10.6	10.3	8.8	10.4	10.0	11.4
46 Grand Avenue, North Branch Chicago River	ND	ND	9.0	8.4	8.0	12.6	10.0	13.2	13.4	11.3	14.9
74 Lake Shore Drive, Chicago River	ND	ND	2.7	2.0	2.2	3.8	4.6	3.5	2.8	3.3	3.4
100 Wells Street, Chicago River	ND	ND	4.0	6.3	3.8	4.1	7.4	4.0	3.5	4.7	4.7
39 Madison Street, South Branch Chicago River	ND	ND	7.3	9.3	8.4	9.7	10.8	10.7	8.0	9.1	11.1
108 Loomis Street, South Branch Chicago River	ND	ND	7.3	10.2	8.5	9.7	11.6	10.1	11.3	9.6	10.7
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	18.3	9.9	7.6	8.4	10.8	7.4	8.8	8.7	9.9
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	8.0	10.2	8.9	11.1	10.3	11.8	11.4	10.4	11.5
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	8.0	12.6	8.9	11.5	10.7	8.6	13.1	11.6	13.7
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	5.0	7.8	5.0	6.1	6.0	6.0	6.9	6.4	6.9
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	4.7	5.6	4.2	5.5	8.3	6.9	5.4	5.8	6.6
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	13.3	9.6	6.9	11.0	13.9	10.2	11.6	11.5	11.4
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	8.8	8.9	6.0	11.1	14.4	9.0	11.2	10.6	10.6
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	8.0	7.7	2.9	3.6	4.2	4.0	7.2	5.6	7.7
50 Burnham Avenue, Wolf Lake	ND	ND	3.0	3.5	3.5	3.5	4.2	3.8	2.9	5.3	3.8
55 130th Street, Calumet River	ND	ND	2.7	5.4	2.7	4.3	6.0	6.3	6.3	5.9	6.4
86 Burnham Avenue, Grand Calumet River	ND	ND	10.0	9.1	13.0	6.0	11.9	10.3	12.8	25.3	11.5
56 Indiana Avenue, Little Calumet River	ND	ND	9.5	10.2	8.9	18.2	25.2	20.3	19.6	24.8	19.6
76 Halsted Street, Little Calumet River	ND	ND	4.0	8.9	4.9	8.9	11.5	8.4	9.3	10.2	11.1
52 Wentworth Avenue, Little Calumet River	ND	ND	30.7	71.6	61.2	38.2	17.7	31.2	33.6	32.2	30.9
54 Joe Orr Road, Thorn Creek	ND	ND	16.3	36.9	24.1	15.8	5.8	9.8	5.8	63.6	17.8
97 170th Street, Thorn Creek	ND	ND	23.0	64.3	51.5	21.5	16.3	25.4	26.5	46.2	29.2
57 Ashland Avenue, Little Calumet River	ND	ND	13.0	47.5	42.1	25.9	16.0	28.2	24.3	42.5	27.5
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	9.0	26.2	19.7	12.9	13.6	16.6	11.5	13.4	14.7
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	13.3	18.5	14.1	12.9	14.9	18.8	14.3	14.2	17.8
43 Route 83, Calumet-Sag Channel	ND	ND	9.3	17.9	9.2	13.6	12.8	14.5	18.6	14.2	15.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	5.3	9.2	12.0	10.4	14.1	7.9	20.3	14.7	10.0
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	16.3	6.1	7.0	5.5	13.5	7.5	7.4	7.6	8.3
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	18.5	17.7	22.9	19.2	25.4	26.3	22.5
111 Arlington Drive, West Branch DuPage River	ND	ND	8.0	13.7	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	12.0	18.2	25.4	21.1	23.8	25.1	30.4	42.9	23.2
80 Arlington Heights Road, Salt Creek	ND	ND	5.5	7.7	6.0	12.5	5.8	9.1	9.8	6.5	5.7
18 Devon Avenue, Salt Creek	ND	ND	5.9	6.8	6.9	12.4	7.5	10.1	11.1	10.1	11.6
24 Wolf Road, Salt Creek	ND	ND	7.3	11.1	14.2	17.0	19.4	24.0	28.7	20.1	16.2
109 Brookfield Avenue, Salt Creek	ND	ND	6.3	10.8	19.4	18.9	18.9	21.1	32.5	23.3	17.0
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	9.0	21.4	19.3	18.9	44.3	23.9	32.5	29.3	29.5
78 Wille Road, Higgins Creek	ND	ND	3.7	1.9	3.1	4.0	7.1	4.5	4.8	3.9	5.1
12 Lake-Cook Road, Buffalo Creek	ND	ND	7.3	14.8	23.9	21.4	20.4	26.7	25.6	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	11.0	10.2	12.9	20.9	17.0	16.5	20.7	19.4	18.5
17 Oakton Street, Des Plaines River	ND	ND	9.7	12.1	13.5	21.5	20.0	16.9	19.5	15.1	18.4
19 Belmont Avenue, Des Plaines River	ND	ND	8.7	10.6	12.7	21.6	25.6	18.6	20.7	17.6	17.1
20 Roosevelt Road, Des Plaines River	ND	ND	7.3	11.6	16.6	22.7	22.0	19.0	21.3	17.5	16.8
22 Ogden Avenue, Des Plaines River	ND	ND	8.7	11.7	15.3	23.8	20.6	21.7	28.3	23.8	16.3
23 Willow Springs Road, Des Plaines River	ND	ND	7.7	12.8	13.1	23.7	21.5	21.2	26.3	20.9	19.1
29 Stephen Street, Des Plaines River	ND	ND	7.7	12.4	16.6	24.8	18.5	18.0	26.2	23.0	20.2
91 Material Service Road, Des Plaines River	ND	ND	6.3	12.8	15.0	22.0	17.6	21.7	22.1	25.8	20.5

ND = No Data.

**TABLE AII-9: TOTAL KJELDAHL NITROGEN MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	1.40	2.06	1.24	1.40	1.59	1.30	1.90	1.31	1.58
103 Golf Road, West Fork North Branch Chicago River	ND	ND	1.14	1.26	1.15	1.10	1.05	1.34	1.36	1.41	1.04
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	1.00	0.87	0.95	0.94	1.16	1.20	1.09	1.36	1.05
104 Glenview Road, North Branch Chicago River	ND	ND	1.29	1.38	0.88	0.99	1.14	1.27	1.54	1.22	0.99
32 Lake-Cook Road, Skokie River	ND	ND	1.06	1.21	0.81	0.88	0.86	1.08	1.29	1.67	1.08
105 Frontage Road, Skokie River	ND	ND	1.00	0.94	1.01	1.01	1.06	1.31	1.32	1.25	0.96
34 Dempster Street, North Branch Chicago River	ND	ND	1.14	1.05	1.53	1.08	1.14	1.23	1.43	1.22	1.04
96 Albany Avenue, North Branch Chicago River	1.00	1.00	1.00	0.97	0.94	0.86	1.03	1.16	1.27	1.31	0.94
35 Central Street, North Shore Channel	ND	ND	1.20	0.56	0.32	0.45	0.43	0.58	0.57	0.39	0.54
112 Dempster Street, North Shore Channel	1.22	1.40	1.00	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	2.14	1.32	1.46	0.85	1.08	1.27	1.41	1.54	1.45
36 Touhy Avenue, North Shore Channel	3.08	2.09	2.17	2.35	2.06	1.38	1.59	2.07	1.99	3.08	2.35
101 Foster Avenue, North Shore Channel	ND	ND	2.43	2.42	2.10	1.37	1.82	2.39	2.07	3.53	3.31
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.17	2.10	1.84	1.32	1.60	1.92	1.97	3.19	3.07
73 Diversey Parkway, North Branch Chicago River	2.50	2.00	1.92	2.20	1.77	1.19	1.36	1.79	1.71	2.25	2.20
46 Grand Avenue, North Branch Chicago River	ND	ND	2.14	2.03	1.96	1.49	1.56	1.94	1.85	2.82	2.26
74 Lake Shore Drive, Chicago River	ND	ND	1.00	0.84	0.29	0.26	0.43	0.55	0.48	0.73	0.66
100 Wells Street, Chicago River	1.18	1.67	1.36	1.31	0.65	0.54	0.88	0.85	0.87	1.15	1.25
39 Madison Street, South Branch Chicago River	ND	ND	1.67	2.24	1.29	1.12	1.33	1.44	1.46	2.32	1.93
108 Loomis Street, South Branch Chicago River	1.25	1.33	1.50	1.46	1.29	1.11	1.36	1.47	1.71	2.33	2.00
99 Archer Avenue, South Fork South Branch Chicago River	2.09	2.50	2.50	2.19	1.98	1.66	1.97	1.57	1.49	2.46	2.07
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	1.86	1.61	1.57	1.27	1.41	1.45	1.64	2.31	1.99
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	1.36	1.50	1.75	1.63	1.40	1.12	1.55	1.47	1.70	2.10	1.80
41 Harlem Avenue, Chicago Sanitary and Ship Canal	1.36	1.67	1.50	1.74	1.51	1.41	1.49	1.75	1.55	1.93	1.20
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	1.86	1.91	1.83	1.33	1.48	1.79	1.61	1.81	1.45
48 Stephen Street, Chicago Sanitary and Ship Canal	1.45	1.42	1.58	1.65	1.54	1.27	1.33	1.56	1.74	1.76	1.32
92 Lockport Forebay, Chicago Sanitary and Ship Canal	1.65	1.35	1.37	1.61	1.49	1.29	1.40	1.55	1.61	1.67	1.38
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	1.00	0.48	0.07	0.18	0.19	0.34	0.38	0.25	0.18
50 Burnham Avenue, Wolf Lake	ND	ND	1.43	0.62	0.52	0.77	0.71	0.85	0.74	0.73	0.57
55 130th Street, Calumet River	ND	ND	1.00	0.60	0.25	0.53	0.63	0.77	0.76	0.70	0.45
86 Burnham Avenue, Grand Calumet River	2.70	3.11	4.91	3.11	4.57	2.31	5.15	4.57	3.19	4.31	2.65
56 Indiana Avenue, Little Calumet River	1.20	1.00	1.00	0.74	0.64	0.99	1.00	1.13	1.09	0.84	0.88
76 Halsted Street, Little Calumet River	1.42	1.73	1.18	1.35	1.30	1.22	1.42	1.34	1.35	1.26	1.00
52 Wentworth Avenue, Little Calumet River	ND	ND	1.00	1.16	1.39	1.34	1.28	1.51	1.64	1.61	1.45
54 Joe Orr Road, Thorn Creek	ND	ND	1.29	1.45	1.24	1.39	1.39	1.50	1.42	1.55	1.27
97 170th Street, Thorn Creek	ND	ND	1.00	0.97	1.21	1.18	1.11	1.43	1.28	1.34	1.11
57 Ashland Avenue, Little Calumet River	1.09	1.10	1.00	1.01	1.11	1.03	1.10	1.39	1.43	1.58	1.15
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	1.14	1.18	1.28	1.09	1.32	1.40	1.47	1.30	1.03
59 Cicero Avenue, Calumet-Sag Channel	1.27	1.73	1.60	1.26	1.33	1.17	1.31	1.28	1.50	1.41	1.19
43 Route 83, Calumet-Sag Channel	1.36	1.36	1.55	1.28	1.29	1.20	1.24	1.41	1.37	1.25	1.15
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	1.00	0.81	0.86	0.81	0.86	0.99	1.13	0.94	0.68
110 Springinguth Road, West Branch DuPage River	1.54	2.63	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	1.71	1.60	1.68	1.53	1.60	1.85	1.72	1.93	1.56
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	1.97	1.55	1.68	2.01	1.84	2.09	1.93
111 Arlington Drive, West Branch DuPage River	1.73	1.75	1.54	1.58	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.11	1.00	1.00	1.20	1.30	1.22	1.19	1.51	1.45	1.41	1.07
80 Arlington Heights Road, Salt Creek	ND	ND	1.28	1.21	1.30	1.19	1.04	1.24	1.37	1.16	1.27
18 Devon Avenue, Salt Creek	1.03	1.08	1.21	1.17	1.46	1.11	0.96	1.12	1.38	1.42	1.35
24 Wolf Road, Salt Creek	ND	ND	1.00	1.01	2.00	1.09	1.07	1.19	1.38	1.25	0.91
109 Brookfield Avenue, Salt Creek	1.00	1.00	1.00	0.89	1.02	1.11	1.08	1.18	1.53	1.23	0.88
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	1.00	1.00	1.13	0.95	0.72	0.93	0.96	0.96	1.38	1.29	0.74
78 Wille Road, Higgins Creek	1.32	1.50	1.27	1.15	1.28	1.22	1.59	1.60	1.84	1.51	1.45
12 Lake-Cook Road, Buffalo Creek	1.00	1.00	1.17	0.98	1.11	1.12	1.10	1.37	1.21	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	1.00	1.00	1.07	1.10	1.09	1.38	1.40	1.34	0.98
17 Oakton Street, Des Plaines River	ND	ND	1.14	1.11	1.04	1.16	1.19	1.27	1.39	1.31	1.02
19 Belmont Avenue, Des Plaines River	1.00	1.00	1.17	1.10	1.09	1.07	1.27	1.45	1.46	1.28	0.96
20 Roosevelt Road, Des Plaines River	ND	ND	1.29	1.08	1.05	1.11	1.17	1.28	1.37	1.20	1.03
22 Ogden Avenue, Des Plaines River	1.00	1.00	1.17	0.95	1.04	1.11	1.23	1.27	1.45	1.25	0.92
23 Willow Springs Road, Des Plaines River	1.00	1.00	1.00	0.93	0.92	1.19	1.10	1.22	1.50	1.23	0.99
29 Stephen Street, Des Plaines River	ND	ND	1.29	1.00	1.15	1.01	1.06	1.26	1.42	1.29	1.02
91 Material Service Road, Des Plaines River	1.00	1.00	1.00	0.96	0.99	1.08	1.11	1.20	1.49	1.29	1.02

ND = No Data.

TABLE AII-10: AMMONIA NITROGEN MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.600	1.028	0.346	0.475	0.487	0.323	0.714	0.228	0.565
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.271	0.264	0.181	0.251	0.200	0.221	0.251	0.265	0.232
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.125	0.120	0.064	0.094	0.181	0.145	0.119	0.190	0.205
104 Glenview Road, North Branch Chicago River	ND	ND	0.200	0.298	0.048	0.126	0.171	0.175	0.198	0.144	0.223
32 Lake-Cook Road, Skokie River	ND	ND	0.242	0.393	0.080	0.109	0.126	0.198	0.213	0.320	0.166
105 Frontage Road, Skokie River	ND	ND	0.129	0.179	0.068	0.108	0.121	0.121	0.114	0.152	0.166
34 Dempster Street, North Branch Chicago River	ND	ND	0.186	0.167	0.190	0.170	0.185	0.164	0.201	0.154	0.191
96 Albany Avenue, North Branch Chicago River	0.145	0.183	0.125	0.169	0.082	0.097	0.149	0.110	0.108	0.153	0.158
35 Central Street, North Shore Channel	ND	ND	0.120	0.120	0.125	0.164	0.114	0.166	0.139	0.071	0.310
112 Dempster Street, North Shore Channel	0.422	0.460	0.140	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	1.014	0.638	0.589	0.303	0.347	0.521	0.553	0.773	0.885
36 Touhy Avenue, North Shore Channel	1.717	1.082	1.100	1.313	0.826	0.396	0.584	0.837	0.685	1.718	1.348
101 Foster Avenue, North Shore Channel	ND	ND	1.471	1.522	1.061	0.485	0.758	1.210	0.876	2.104	2.176
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.917	1.231	0.807	0.433	0.574	0.879	0.770	1.881	2.005
73 Diversey Parkway, North Branch Chicago River	1.642	0.817	1.042	1.086	0.900	0.312	0.427	0.698	0.643	1.091	1.276
46 Grand Avenue, North Branch Chicago River	ND	ND	1.014	1.088	1.021	0.519	0.613	0.710	0.638	1.617	1.415
74 Lake Shore Drive, Chicago River	ND	ND	0.350	0.370	0.145	0.092	0.088	0.185	0.105	0.400	0.339
100 Wells Street, Chicago River	0.436	0.850	0.500	0.651	0.338	0.175	0.297	0.297	0.229	0.583	0.686
39 Madison Street, South Branch Chicago River	ND	ND	0.917	1.208	0.532	0.450	0.491	0.574	0.541	1.361	1.197
108 Loomis Street, South Branch Chicago River	0.708	0.792	0.725	0.696	0.579	0.413	0.522	0.513	0.730	1.360	1.251
99 Archer Avenue, South Fork South Branch Chicago River	1.000	1.500	1.325	1.018	0.937	0.715	0.771	0.637	0.620	1.320	1.136
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.871	0.748	0.613	0.484	0.580	0.563	0.618	1.277	1.185
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.773	0.842	0.925	0.767	0.562	0.436	0.660	0.590	0.617	1.175	1.107
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.645	1.008	0.483	0.763	0.521	0.583	0.505	0.556	0.364	0.941	0.508
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.729	0.888	0.799	0.497	0.573	0.687	0.482	0.816	0.649
48 Stephen Street, Chicago Sanitary and Ship Canal	0.873	0.650	0.633	0.693	0.536	0.441	0.465	0.478	0.544	0.797	0.564
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.835	0.618	0.594	0.716	0.573	0.418	0.471	0.516	0.479	0.654	0.635
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.117	0.125	0.038	0.016	0.023	0.087	0.057	0.109	0.114
50 Burnham Avenue, Wolf Lake	ND	ND	0.514	0.110	0.080	0.093	0.102	0.132	0.098	0.183	0.203
55 130th Street, Calumet River	0.167	ND	0.171	0.213	0.071	0.106	0.162	0.161	0.180	0.235	0.240
86 Burnham Avenue, Grand Calumet River	1.850	1.933	3.673	2.076	3.121	1.014	2.198	2.218	1.434	1.659	1.399
56 Indiana Avenue, Little Calumet River	0.310	0.313	0.180	0.275	0.202	0.324	0.261	0.306	0.193	0.199	0.256
76 Halsted Street, Little Calumet River	0.567	0.582	0.309	0.465	0.368	0.323	0.343	0.295	0.259	0.284	0.298
52 Wentworth Avenue, Little Calumet River	0.367	ND	0.271	0.259	0.264	0.364	0.262	0.290	0.178	0.365	0.360
54 Joe Orr Road, Thorn Creek	ND	ND	0.300	0.466	0.166	0.252	0.227	0.295	0.153	0.240	0.324
97 170th Street, Thorn Creek	0.317	ND	0.183	0.180	0.134	0.134	0.182	0.191	0.135	0.315	0.304
57 Ashland Avenue, Little Calumet River	0.218	0.300	0.209	0.215	0.196	0.191	0.203	0.232	0.154	0.355	0.379
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.329	0.383	0.334	0.301	0.354	0.301	0.302	0.320	0.298
59 Cicero Avenue, Calumet-Sag Channel	0.455	0.591	0.440	0.480	0.428	0.258	0.389	0.263	0.278	0.360	0.356
43 Route 83, Calumet-Sag Channel	0.500	0.500	0.409	0.499	0.407	0.314	0.335	0.310	0.261	0.321	0.438
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.143	0.186	0.094	0.052	0.062	0.094	0.113	0.108	0.107
110 Springinguth Road, West Branch DuPage River	0.275	0.788	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.129	0.190	0.118	0.081	0.152	0.242	0.122	0.273	0.332
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.755	0.153	0.249	0.340	0.252	0.482	0.552
111 Arlington Drive, West Branch DuPage River	0.491	0.383	0.208	0.248	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.111	0.125	0.127	0.111	0.098	0.063	0.039	0.129	0.111	0.100	0.140
80 Arlington Heights Road, Salt Creek	ND	ND	0.157	0.117	0.202	0.028	0.055	0.107	0.114	0.157	0.382
18 Devon Avenue, Salt Creek	0.127	0.167	0.183	0.147	0.221	0.045	0.046	0.112	0.124	0.193	0.313
24 Wolf Road, Salt Creek	ND	ND	0.186	0.154	0.180	0.117	0.160	0.162	0.153	0.163	0.195
109 Brookfield Avenue, Salt Creek	0.144	0.173	0.183	0.149	0.224	0.116	0.196	0.174	0.154	0.166	0.186
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.125	0.150	0.225	0.224	0.000	0.135	0.214	0.172	0.199	0.123	0.180
78 Wille Road, Higgins Creek	0.250	0.375	0.327	0.256	0.221	0.268	0.373	0.353	0.405	0.269	0.437
12 Lake-Cook Road, Buffalo Creek	ND	0.100	0.117	0.159	0.084	0.060	0.083	0.110	0.117	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.129	0.166	0.040	0.097	0.068	0.103	0.086	0.190	0.179
17 Oakton Street, Des Plaines River	ND	ND	0.114	0.141	0.065	0.071	0.061	0.099	0.115	0.145	0.192
19 Belmont Avenue, Des Plaines River	0.120	0.142	0.142	0.137	0.086	0.086	0.107	0.117	0.124	0.143	0.273
20 Roosevelt Road, Des Plaines River	ND	ND	0.214	0.169	0.065	0.057	0.098	0.088	0.107	0.143	0.188
22 Ogden Avenue, Des Plaines River	0.100	0.142	0.125	0.141	0.107	0.079	0.073	0.130	0.122	0.161	0.134
23 Willow Springs Road, Des Plaines River	0.100	0.118	0.167	0.149	0.088	0.113	0.059	0.131	0.147	0.124	0.155
29 Stephen Street, Des Plaines River	ND	ND	0.114	0.138	0.069	0.054	0.064	0.105	0.133	0.111	0.109
91 Material Service Road, Des Plaines River	0.120	0.108	0.117	0.142	0.028	0.080	0.047	0.085	0.137	0.122	0.119

ND = No Data.

TABLE AII-11: UN-IONIZED AMMONIA MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.001	0.005	0.002	0.002	0.005	0.002	0.002	0.002	0.006
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.005
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.001	0.002	0.001	0.001	0.003	0.003	0.001	0.002	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.004	0.001	0.002	0.003	0.004	0.003	0.002	0.002
32 Lake-Cook Road, Skokie River	ND	ND	0.003	0.007	0.001	0.001	0.002	0.005	0.003	0.011	0.002
105 Frontage Road, Skokie River	ND	ND	0.003	0.003	0.001	0.001	0.002	0.002	0.003	0.001	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	0.003	0.003	0.002	0.002	0.002	0.002	0.005	0.002	0.003
96 Albany Avenue, North Branch Chicago River	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002
35 Central Street, North Shore Channel	ND	ND	0.004	0.003	0.001	0.001	0.002	0.002	0.002	0.002	0.009
112 Dempster Street, North Shore Channel	0.025	0.001	0.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.006	0.005	0.005	0.003	0.004	0.005	0.004	0.005	0.011
36 Touhy Avenue, North Shore Channel	0.008	0.004	0.007	0.006	0.005	0.002	0.004	0.007	0.005	0.012	0.010
101 Foster Avenue, North Shore Channel	ND	ND	0.007	0.006	0.005	0.004	0.004	0.009	0.005	0.019	0.011
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.008	0.008	0.007	0.004	0.004	0.008	0.007	0.021	0.035
73 Diversey Parkway, North Branch Chicago River	0.009	0.006	0.007	0.005	0.006	0.002	0.004	0.004	0.016	0.009	0.012
46 Grand Avenue, North Branch Chicago River	ND	ND	0.010	0.008	0.006	0.005	0.005	0.007	0.005	0.012	0.017
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.001	0.000	0.001	0.001	0.002	0.002	0.004	0.005
100 Wells Street, Chicago River	0.002	0.002	0.003	0.003	0.003	0.002	0.003	0.004	0.003	0.005	0.006
39 Madison Street, South Branch Chicago River	ND	ND	0.006	0.006	0.004	0.003	0.004	0.008	0.007	0.014	0.007
108 Loomis Street, South Branch Chicago River	0.003	0.003	0.006	0.005	0.005	0.004	0.008	0.006	0.009	0.017	0.012
99 Archer Avenue, South Fork South Branch Chicago River	0.003	0.007	0.007	0.006	0.006	0.004	0.006	0.006	0.006	0.009	0.008
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.007	0.007	0.006	0.005	0.005	0.007	0.007	0.011	0.011
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.003	0.004	0.003	0.005	0.003	0.002	0.004	0.006	0.005	0.023	0.011
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.003	0.005	0.003	0.004	0.003	0.004	0.005	0.004	0.002	0.007	0.006
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.003	0.003	0.003	0.002	0.004	0.004	0.002	0.006	0.006
48 Stephen Street, Chicago Sanitary and Ship Canal	0.003	0.002	0.004	0.003	0.004	0.003	0.011	0.004	0.003	0.003	0.004
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.004	0.005	0.006	0.006	0.004	0.005	0.005	0.005	0.007	0.007
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.003	0.001	0.001	0.000	0.000	0.002	0.001	0.001	0.004
50 Burnham Avenue, Wolf Lake	ND	ND	0.173	0.003	0.004	0.002	0.012	0.022	0.012	0.003	0.004
55 130th Street, Calumet River	0.004	ND	0.006	0.004	0.001	0.003	0.003	0.004	0.005	0.004	0.005
86 Burnham Avenue, Grand Calumet River	0.012	0.017	0.031	0.022	0.034	0.007	0.020	0.044	0.012	0.015	0.016
56 Indiana Avenue, Little Calumet River	0.006	0.006	0.001	0.001	0.002	0.005	0.002	0.005	0.008	0.001	0.003
76 Halsted Street, Little Calumet River	0.002	0.005	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.002
52 Wentworth Avenue, Little Calumet River	0.006	ND	0.005	0.003	0.004	0.011	0.005	0.006	0.004	0.002	0.004
54 Joe Orr Road, Thorn Creek	ND	ND	0.001	0.003	0.001	0.001	0.001	0.003	0.003	0.001	0.002
97 170th Street, Thorn Creek	0.003	ND	0.005	0.002	0.003	0.003	0.005	0.003	0.003	0.001	0.003
57 Ashland Avenue, Little Calumet River	0.002	0.004	0.027	0.003	0.003	0.004	0.009	0.003	0.004	0.002	0.009
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.003	0.003	0.002	0.003	0.003	0.004	0.002	0.001	0.002
59 Cicero Avenue, Calumet-Sag Channel	0.003	0.003	0.003	0.003	0.004	0.002	0.003	0.003	0.003	0.002	0.003
43 Route 83, Calumet-Sag Channel	0.003	0.002	0.004	0.005	0.004	0.003	0.005	0.004	0.004	0.002	0.006
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.002	0.005	0.002	0.002	0.001	0.003	0.003	0.002	0.002
110 Springinguth Road, West Branch DuPage River	0.004	0.007	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.001	0.002	0.001	0.001	0.002	0.003	0.001	0.003	0.003
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.007	0.001	0.005	0.007	0.003	0.005	0.005
111 Arlington Drive, West Branch DuPage River	0.003	0.003	0.004	0.004	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.002	0.001	0.002	0.002	0.002	0.001	0.000	0.003	0.004	0.002	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	0.002	0.002	0.001	0.000	0.000	0.002	0.001	0.006	0.003
18 Devon Avenue, Salt Creek	0.002	0.001	0.002	0.002	0.002	0.000	0.000	0.002	0.002	0.006	0.002
24 Wolf Road, Salt Creek	ND	ND	0.001	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003
109 Brookfield Avenue, Salt Creek	0.003	0.001	0.002	0.002	0.002	0.001	0.002	0.003	0.002	0.002	0.002
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.004	0.004	0.003	0.003	0.000	0.003	0.005	0.004	0.002	0.003	0.003
78 Wille Road, Higgins Creek	0.003	0.003	0.004	0.005	0.004	0.004	0.006	0.006	0.005	0.003	0.007
12 Lake-Cook Road, Buffalo Creek	ND	0.000	0.001	0.002	0.001	0.000	0.002	0.002	0.003	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.003	0.003	0.001	0.002	0.003	0.002	0.001	0.003	0.004
17 Oakton Street, Des Plaines River	ND	ND	0.002	0.004	0.001	0.002	0.001	0.002	0.002	0.002	0.003
19 Belmont Avenue, Des Plaines River	0.003	0.002	0.002	0.005	0.001	0.001	0.003	0.003	0.002	0.002	0.004
20 Roosevelt Road, Des Plaines River	ND	ND	0.006	0.013	0.001	0.001	0.001	0.002	0.003	0.001	0.004
22 Ogden Avenue, Des Plaines River	0.003	0.001	0.003	0.003	0.001	0.001	0.001	0.004	0.002	0.002	0.002
23 Willow Springs Road, Des Plaines River	0.004	0.002	0.005	0.004	0.001	0.010	0.001	0.003	0.003	0.003	0.002
29 Stephen Street, Des Plaines River	ND	ND	0.008	0.002	0.001	0.004	0.001	0.002	0.002	0.002	0.001
91 Material Service Road, Des Plaines River	0.005	0.002	0.007	0.003	0.000	0.001	0.001	0.002	0.004	0.003	0.002

ND = No Data.

TABLE AII-12: ORGANIC NITROGEN MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.80	1.03	0.89	0.92	1.11	0.98	1.19	1.08	1.01
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.87	1.00	0.97	0.85	0.85	1.12	1.11	1.15	0.81
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.88	0.75	0.88	0.84	0.98	1.06	0.97	1.17	0.85
104 Glenview Road, North Branch Chicago River	ND	ND	1.09	1.08	0.83	0.86	0.97	1.10	1.34	1.07	0.77
32 Lake-Cook Road, Skokie River	ND	ND	0.82	0.81	0.73	0.77	0.73	0.88	1.08	1.35	0.91
105 Frontage Road, Skokie River	ND	ND	0.87	0.76	0.95	0.90	0.94	1.19	1.20	1.10	0.80
34 Dempster Street, North Branch Chicago River	ND	ND	0.96	0.88	1.34	0.91	0.96	1.07	1.23	1.06	0.85
96 Albany Avenue, North Branch Chicago River	0.85	0.82	0.88	0.80	0.86	0.76	0.88	1.05	1.16	1.16	0.78
35 Central Street, North Shore Channel	ND	ND	1.08	0.45	0.21	0.28	0.34	0.41	0.44	0.32	0.24
112 Dempster Street, North Shore Channel	0.80	0.94	0.86	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	1.13	0.68	0.88	0.56	0.74	0.75	0.86	0.77	0.57
36 Touhy Avenue, North Shore Channel	1.37	1.01	1.07	1.04	1.24	0.98	1.00	1.24	1.32	1.37	1.00
101 Foster Avenue, North Shore Channel	ND	ND	0.96	0.90	1.04	0.89	1.06	1.18	1.20	1.43	1.14
37 Wilson Avenue, North Branch Chicago River	ND	ND	1.25	0.87	1.04	0.89	1.03	1.04	1.20	1.31	1.06
73 Diversey Parkway, North Branch Chicago River	0.87	1.18	0.88	1.12	0.87	0.88	0.93	1.09	1.07	1.16	0.92
46 Grand Avenue, North Branch Chicago River	ND	ND	1.13	0.94	0.94	0.97	0.95	1.23	1.22	1.20	0.84
74 Lake Shore Drive, Chicago River	ND	ND	0.65	0.47	0.15	0.18	0.35	0.37	0.37	0.34	0.31
100 Wells Street, Chicago River	0.75	0.82	0.86	0.66	0.41	0.37	0.58	0.55	0.64	0.57	0.56
39 Madison Street, South Branch Chicago River	ND	ND	0.75	1.03	0.76	0.67	0.84	0.86	0.92	0.95	0.73
108 Loomis Street, South Branch Chicago River	0.54	0.58	0.78	0.76	0.71	0.70	0.84	0.96	0.98	0.97	0.75
99 Archer Avenue, South Fork South Branch Chicago River	1.11	1.01	1.18	1.17	1.05	0.95	1.20	0.93	0.87	1.14	0.94
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.99	0.86	0.96	0.79	0.83	0.88	1.03	1.03	0.81
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.59	0.67	0.83	0.87	0.84	0.68	0.89	0.88	1.08	0.92	0.70
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.72	0.66	1.02	0.98	0.99	0.98	0.83	0.98	1.19	1.18	0.99
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	1.13	1.02	1.03	0.83	0.90	1.11	1.13	0.99	0.80
48 Stephen Street, Chicago Sanitary and Ship Canal	0.58	0.77	0.95	0.95	1.01	0.83	0.86	1.08	1.20	0.96	0.76
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.81	0.74	0.78	0.90	0.91	0.87	0.93	1.04	1.13	1.02	0.75
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.88	0.36	0.07	0.16	0.16	0.25	0.32	0.15	0.09
50 Burnham Avenue, Wolf Lake	ND	ND	0.91	0.51	0.46	0.67	0.61	0.71	0.64	0.55	0.37
55 130th Street, Calumet River	ND	ND	0.83	0.40	0.18	0.43	0.47	0.61	0.58	0.47	0.20
86 Burnham Avenue, Grand Calumet River	0.85	1.18	1.24	1.04	1.45	1.29	2.95	2.35	1.76	2.65	1.25
56 Indiana Avenue, Little Calumet River	0.89	0.69	0.82	0.47	0.45	0.67	0.74	0.83	0.90	0.64	0.69
76 Halsted Street, Little Calumet River	0.85	1.15	0.87	0.89	0.93	0.90	1.07	1.04	1.10	0.98	0.70
52 Wentworth Avenue, Little Calumet River	ND	ND	0.73	0.90	1.13	0.98	1.01	1.22	1.46	1.25	1.09
54 Joe Orr Road, Thorn Creek	ND	ND	0.99	0.98	1.07	1.13	1.16	1.21	1.27	1.31	0.94
97 170th Street, Thorn Creek	ND	ND	0.82	0.79	1.08	1.05	0.93	1.24	1.14	1.02	0.81
57 Ashland Avenue, Little Calumet River	0.87	0.80	0.79	0.80	0.92	0.84	0.90	1.16	1.28	1.23	0.77
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.81	0.80	0.97	0.79	0.96	1.09	1.17	0.98	0.73
59 Cicero Avenue, Calumet-Sag Channel	0.82	1.14	1.16	0.78	0.90	0.92	0.92	1.02	1.22	1.05	0.83
43 Route 83, Calumet-Sag Channel	0.86	0.86	1.14	0.78	0.88	0.88	0.91	1.10	1.11	0.93	0.72
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.86	0.63	0.76	0.76	0.80	0.90	1.02	0.83	0.57
110 Springinsguth Road, West Branch DuPage River	1.26	1.84	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	1.59	1.41	1.56	1.45	1.45	1.61	1.59	1.66	1.23
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	1.22	1.40	1.43	1.67	1.59	1.61	1.37
111 Arlington Drive, West Branch DuPage River	1.24	1.37	1.33	1.33	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	1.00	0.88	0.87	1.08	1.20	1.16	1.15	1.38	1.33	1.31	0.93
80 Arlington Heights Road, Salt Creek	ND	ND	1.12	1.10	1.10	1.16	0.98	1.13	1.26	1.01	0.88
18 Devon Avenue, Salt Creek	0.91	0.92	1.02	1.02	1.24	1.07	0.91	1.01	1.26	1.22	1.04
24 Wolf Road, Salt Creek	ND	ND	0.81	0.86	1.82	0.98	0.91	1.03	1.22	1.09	0.71
109 Brookfield Avenue, Salt Creek	0.86	0.83	0.82	0.74	0.81	1.00	0.89	1.00	1.38	1.07	0.70
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.88	0.85	0.90	0.73	0.72	0.79	0.75	0.79	1.18	1.17	0.56
78 Wille Road, Higgins Creek	1.07	1.13	0.95	0.89	1.06	0.95	1.22	1.25	1.43	1.24	1.01
12 Lake-Cook Road, Buffalo Creek	ND	0.90	1.05	0.82	1.03	1.06	1.02	1.26	1.09	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.87	0.83	1.03	1.00	1.02	1.27	1.32	1.15	0.80
17 Oakton Street, Des Plaines River	ND	ND	1.03	0.97	0.98	1.09	1.13	1.17	1.27	1.16	0.83
19 Belmont Avenue, Des Plaines River	0.88	0.86	1.03	0.96	1.00	0.99	1.16	1.33	1.33	1.13	0.68
20 Roosevelt Road, Des Plaines River	ND	ND	1.07	0.91	0.99	1.05	1.08	1.19	1.26	1.06	0.84
22 Ogden Avenue, Des Plaines River	0.90	0.86	1.04	0.81	0.93	1.04	1.15	1.14	1.33	1.09	0.79
23 Willow Springs Road, Des Plaines River	0.90	0.88	0.83	0.78	0.84	1.08	1.04	1.09	1.35	1.11	0.83
29 Stephen Street, Des Plaines River	ND	ND	1.17	0.86	1.08	0.96	0.99	1.16	1.28	1.18	0.91
91 Material Service Road, Des Plaines River	0.88	0.89	0.88	0.82	0.97	1.00	1.06	1.12	1.36	1.17	0.90

ND = No Data.

TABLE AII-13: NITRITE PLUS NITRATE NITROGEN MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	6.16	8.14	8.56	6.78	5.90	4.63	3.68	7.14	9.95
103 Golf Road, West Fork North Branch Chicago River	ND	ND	3.44	3.82	3.72	3.04	2.12	3.49	3.11	3.88	2.86
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.23	0.22	0.17	0.23	0.78	0.24	0.42	0.24	0.33
104 Glenview Road, North Branch Chicago River	ND	ND	5.82	4.94	5.88	3.95	3.31	4.52	3.92	5.93	4.79
32 Lake-Cook Road, Skokie River	ND	ND	0.47	0.96	0.35	0.35	0.62	0.46	3.15	3.41	0.77
105 Frontage Road, Skokie River	ND	ND	7.58	6.98	7.07	5.15	4.03	5.58	5.33	7.00	5.74
34 Dempster Street, North Branch Chicago River	ND	ND	4.33	4.39	4.02	3.43	3.00	3.97	3.74	5.06	4.24
96 Albany Avenue, North Branch Chicago River	3.99	3.50	4.40	4.20	4.50	3.60	2.84	4.07	3.83	4.64	4.75
35 Central Street, North Shore Channel	ND	ND	0.22	0.30	0.31	0.33	0.28	0.31	0.34	0.23	0.35
112 Dempster Street, North Shore Channel	0.48	1.46	4.30	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	5.01	3.75	3.29	2.73	2.72	3.33	3.81	2.44	2.13
36 Touhy Avenue, North Shore Channel	6.48	6.20	6.87	6.25	6.53	6.47	6.76	6.53	6.01	5.24	5.37
101 Foster Avenue, North Shore Channel	ND	ND	7.95	6.67	7.75	7.44	7.23	7.58	7.19	5.97	5.93
37 Wilson Avenue, North Branch Chicago River	ND	ND	7.59	5.66	7.12	6.93	6.26	7.29	6.94	6.29	6.26
73 Diversey Parkway, North Branch Chicago River	7.01	6.19	6.81	5.98	7.18	6.69	6.47	6.47	6.41	6.04	6.50
46 Grand Avenue, North Branch Chicago River	ND	ND	7.36	6.42	6.66	5.79	5.70	6.43	6.22	5.77	5.36
74 Lake Shore Drive, Chicago River	ND	ND	2.84	2.66	1.28	0.57	0.93	1.31	1.04	1.07	1.50
100 Wells Street, Chicago River	2.36	4.46	4.88	4.38	2.83	1.94	2.60	2.29	2.15	2.22	2.52
39 Madison Street, South Branch Chicago River	ND	ND	5.33	5.76	5.05	4.58	4.31	4.41	4.03	4.37	4.68
108 Loomis Street, South Branch Chicago River	4.35	5.63	5.98	5.31	5.12	4.71	4.40	4.39	4.30	4.35	4.76
99 Archer Avenue, South Fork South Branch Chicago River	2.46	2.87	4.25	4.16	4.80	3.32	3.63	3.91	3.67	4.05	4.17
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	5.72	5.18	5.11	4.56	4.22	4.15	4.25	4.22	4.64
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	4.34	4.95	6.06	4.51	5.15	3.95	4.49	4.50	3.84	4.06	4.63
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.83	7.14	8.29	6.29	8.12	6.35	7.25	7.11	7.41	7.67	7.64
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	8.10	6.23	6.10	5.29	6.33	6.08	6.00	5.97	6.93
48 Stephen Street, Chicago Sanitary and Ship Canal	4.64	6.24	7.07	5.33	5.83	4.92	5.64	5.59	5.59	5.51	6.27
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.70	5.97	6.65	5.78	5.91	5.34	5.52	5.45	5.90	6.01	5.74
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.35	0.38	0.30	0.33	0.39	0.37	0.38	0.37	0.36
50 Burnham Avenue, Wolf Lake	ND	ND	0.15	0.10	0.07	0.06	0.09	0.16	0.09	0.13	0.11
55 130th Street, Calumet River	0.52	ND	0.55	0.50	0.42	0.55	0.65	0.68	0.71	0.60	0.52
86 Burnham Avenue, Grand Calumet River	2.05	0.49	0.18	0.38	0.29	4.45	1.96	1.81	4.68	5.19	5.00
56 Indiana Avenue, Little Calumet River	1.86	1.60	1.87	1.85	1.12	0.86	1.25	1.40	1.86	1.37	1.36
76 Halsted Street, Little Calumet River	5.19	5.59	6.18	5.53	5.38	4.56	5.16	5.17	5.91	5.33	4.79
52 Wentworth Avenue, Little Calumet River	2.84	ND	5.34	2.64	4.34	3.83	4.85	4.18	4.25	4.27	3.57
54 Joe Orr Road, Thorn Creek	ND	ND	11.18	7.31	7.39	9.28	10.15	9.18	9.88	6.39	7.33
97 170th Street, Thorn Creek	3.21	ND	6.44	4.35	4.53	5.30	6.26	5.49	5.32	5.97	5.67
57 Ashland Avenue, Little Calumet River	3.33	4.47	4.49	2.80	3.41	3.22	4.22	3.25	4.08	3.67	3.06
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	5.38	4.67	4.38	4.02	4.84	4.26	5.66	5.17	4.51
59 Cicero Avenue, Calumet-Sag Channel	4.16	4.75	5.11	4.69	4.55	3.54	5.02	3.92	5.32	5.22	4.58
43 Route 83, Calumet-Sag Channel	3.77	4.39	5.25	4.18	4.90	3.76	4.48	4.69	4.78	5.35	4.38
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.26	0.34	0.28	0.28	0.31	0.29	0.53	0.39	0.34
110 Springinguth Road, West Branch DuPage River	0.58	0.49	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	10.96	10.25	11.83	10.32	9.38	7.98	8.57	8.85	9.43
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	6.82	8.91	9.11	7.34	8.38	8.64	8.83
111 Arlington Drive, West Branch DuPage River	11.81	12.23	12.65	10.43	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.20	0.20	0.21	1.77	0.12	1.28	0.23	0.23	0.26	0.27	0.25
80 Arlington Heights Road, Salt Creek	ND	ND	7.75	5.97	7.81	7.72	8.84	7.10	6.77	7.98	6.01
18 Devon Avenue, Salt Creek	8.39	8.41	10.19	7.18	8.31	7.60	8.69	7.01	6.92	8.19	6.40
24 Wolf Road, Salt Creek	ND	ND	6.40	6.26	6.98	6.08	7.06	6.47	6.22	8.12	6.54
109 Brookfield Avenue, Salt Creek	5.54	5.99	7.84	5.48	6.17	5.18	6.20	5.56	5.67	6.98	5.78
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.24	0.30	0.30	0.32	0.35	0.41	0.54	0.40	0.57	0.44	0.47
78 Wille Road, Higgins Creek	11.12	9.08	8.62	8.86	7.90	8.26	7.98	5.83	5.46	9.44	5.42
12 Lake-Cook Road, Buffalo Creek	ND	0.22	0.26	0.39	0.36	0.40	0.33	0.31	0.56	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	5.98	4.83	6.45	4.68	5.70	5.26	6.56	7.69	6.53
17 Oakton Street, Des Plaines River	ND	ND	5.54	4.17	6.08	3.90	4.52	4.09	5.24	6.43	5.46
19 Belmont Avenue, Des Plaines River	4.35	5.99	7.31	4.28	5.71	4.27	4.59	3.95	4.86	5.93	4.69
20 Roosevelt Road, Des Plaines River	ND	ND	4.50	4.09	5.65	3.84	4.47	3.81	4.54	5.49	4.38
22 Ogden Avenue, Des Plaines River	4.38	5.86	7.02	4.36	5.52	4.04	4.80	3.95	4.89	5.79	4.70
23 Willow Springs Road, Des Plaines River	4.04	4.79	6.38	4.23	5.25	3.74	4.88	4.13	4.82	5.69	4.67
29 Stephen Street, Des Plaines River	ND	ND	4.39	4.07	5.01	3.66	5.05	4.40	5.08	6.04	4.69
91 Material Service Road, Des Plaines River	4.40	4.91	5.95	3.83	4.78	3.78	4.65	4.28	4.86	6.26	4.39

ND = No Data.

TABLE AII-14: TOTAL SOLIDS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	1471	1292	1160	988	1027	1603	900	1050	1300
103 Golf Road, West Fork North Branch Chicago River	ND	ND	1176	1057	1052	861	863	1146	919	1232	776
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	890	759	845	659	809	797	794	888	646
104 Glenview Road, North Branch Chicago River	ND	ND	814	711	781	695	799	761	704	756	711
32 Lake-Cook Road, Skokie River	ND	ND	926	708	780	637	726	823	709	858	712
105 Frontage Road, Skokie River	ND	ND	771	670	713	664	775	696	654	696	622
34 Dempster Street, North Branch Chicago River	ND	ND	1015	734	897	720	763	850	752	885	808
96 Albany Avenue, North Branch Chicago River	942	785	797	785	883	773	913	854	802	934	684
35 Central Street, North Shore Channel	ND	ND	570	315	255	269	328	260	229	244	250
112 Dempster Street, North Shore Channel	340	446	519	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	513	497	423	407	441	443	381	423	344
36 Touhy Avenue, North Shore Channel	569	486	509	645	534	628	556	646	475	511	511
101 Foster Avenue, North Shore Channel	ND	ND	572	627	567	600	584	704	491	546	493
37 Wilson Avenue, North Branch Chicago River	ND	ND	660	658	686	630	661	750	527	613	565
73 Diversey Parkway, North Branch Chicago River	651	576	529	589	638	691	703	613	522	570	543
46 Grand Avenue, North Branch Chicago River	ND	ND	658	596	595	592	706	674	555	597	591
74 Lake Shore Drive, Chicago River	ND	ND	514	463	310	244	273	365	256	274	300
100 Wells Street, Chicago River	391	461	462	508	411	330	437	409	337	369	382
39 Madison Street, South Branch Chicago River	ND	ND	595	696	532	496	561	548	456	483	464
108 Loomis Street, South Branch Chicago River	573	536	449	579	591	505	549	592	497	476	459
99 Archer Avenue, South Fork South Branch Chicago River	593	535	531	578	565	491	591	560	425	474	471
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	644	560	572	501	556	616	481	477	487
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	609	541	549	577	546	502	604	647	481	495	514
41 Harlem Avenue, Chicago Sanitary and Ship Canal	681	569	580	627	621	579	619	764	529	530	550
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	676	656	635	568	628	616	548	578	597
48 Stephen Street, Chicago Sanitary and Ship Canal	682	611	629	664	665	545	640	606	584	591	607
92 Lockport Forebay, Chicago Sanitary and Ship Canal	716	635	598	665	669	604	729	647	584	618	622
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	262	280	229	234	227	242	245	223	234
50 Burnham Avenue, Wolf Lake	ND	ND	385	348	327	304	301	295	241	279	275
55 130th Street, Calumet River	327	ND	472	406	363	396	405	395	354	300	340
86 Burnham Avenue, Grand Calumet River	637	788	608	532	570	782	794	747	865	665	787
56 Indiana Avenue, Little Calumet River	467	381	540	465	420	440	488	478	428	370	410
76 Halsted Street, Little Calumet River	634	600	620	626	586	579	714	648	590	559	579
52 Wentworth Avenue, Little Calumet River	515	ND	806	594	646	611	761	679	700	612	745
54 Joe Orr Road, Thorn Creek	ND	ND	1590	1089	1383	1267	1600	1417	1490	1293	1530
97 170th Street, Thorn Creek	943	ND	1152	980	1073	983	1187	1009	1099	1252	1165
57 Ashland Avenue, Little Calumet River	866	938	948	788	829	743	853	830	877	925	885
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	759	680	682	574	730	605	638	632	626
59 Cicero Avenue, Calumet-Sag Channel	633	645	686	705	617	577	695	622	683	625	666
43 Route 83, Calumet-Sag Channel	632	641	626	643	679	583	668	628	642	626	630
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	795	738	817	666	829	784	804	766	756
110 Springinsguth Road, West Branch DuPage River	947	781	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	648	685	653	606	649	647	656	619	650
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	939	664	757	670	683	701	697
111 Arlington Drive, West Branch DuPage River	739	673	663	719	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	960	717	936	860	757	725	1012	974	804	1075	960
80 Arlington Heights Road, Salt Creek	ND	ND	846	787	828	721	965	789	788	733	679
18 Devon Avenue, Salt Creek	883	737	750	800	891	674	983	782	806	866	751
24 Wolf Road, Salt Creek	ND	ND	840	817	877	752	926	814	737	823	762
109 Brookfield Avenue, Salt Creek	766	764	733	805	845	715	887	786	765	809	812
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	1208	879	825	737	1183	721	1212	650	1163	1110	1213
78 Wille Road, Higgins Creek	758	725	694	801	760	788	833	786	712	716	707
12 Lake-Cook Road, Buffalo Creek	782	669	862	784	919	717	952	816	819	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	686	641	687	569	746	664	736	742	699
17 Oakton Street, Des Plaines River	ND	ND	697	682	738	571	763	657	777	779	689
19 Belmont Avenue, Des Plaines River	754	698	671	688	744	617	844	688	779	783	749
20 Roosevelt Road, Des Plaines River	ND	ND	686	703	747	608	834	704	771	775	732
22 Ogden Avenue, Des Plaines River	721	719	697	724	771	617	813	720	759	778	732
23 Willow Springs Road, Des Plaines River	734	716	712	730	757	621	828	743	744	773	724
29 Stephen Street, Des Plaines River	ND	ND	764	714	750	623	851	728	758	772	702
91 Material Service Road, Des Plaines River	761	704	713	709	762	636	827	720	771	805	731

ND = No Data.

TABLE AII-15: TOTAL SUSPENDED SOLIDS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	25.4	33.9	25.1	33.3	61.5	25.5	93.4	31.5	56.1
103 Golf Road, West Fork North Branch Chicago River	ND	ND	22.7	18.1	16.6	28.1	23.3	12.2	34.0	29.7	23.6
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	4.5	11.4	11.4	21.9	33.0	16.4	69.3	24.2	22.0
104 Glenview Road, North Branch Chicago River	ND	ND	12.0	30.8	11.3	19.4	28.2	14.2	50.1	18.8	22.8
32 Lake-Cook Road, Skokie River	ND	ND	12.0	18.3	12.7	21.4	26.7	16.4	47.9	21.6	21.0
105 Frontage Road, Skokie River	ND	ND	14.6	18.9	13.8	20.9	24.3	18.5	23.8	18.4	25.2
34 Dempster Street, North Branch Chicago River	ND	ND	16.3	16.2	13.4	21.4	27.5	17.2	39.8	25.3	21.8
96 Albany Avenue, North Branch Chicago River	21.4	28.8	11.1	18.3	14.3	22.3	29.7	16.8	28.3	16.8	22.5
35 Central Street, North Shore Channel	ND	ND	11.4	9.6	7.1	10.3	12.6	5.3	9.4	8.5	11.3
112 Dempster Street, North Shore Channel	14.4	21.4	13.4	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	17.1	13.8	20.8	13.8	16.5	11.8	16.5	11.6	15.2
36 Touhy Avenue, North Shore Channel	8.9	10.3	7.2	9.2	7.0	8.4	10.4	5.0	11.7	10.9	15.4
101 Foster Avenue, North Shore Channel	ND	ND	10.0	8.8	7.7	9.3	14.8	5.7	12.3	12.2	12.7
37 Wilson Avenue, North Branch Chicago River	ND	ND	9.0	13.3	9.9	15.9	19.0	8.3	14.3	15.0	13.9
73 Diversey Parkway, North Branch Chicago River	12.2	21.5	13.7	12.6	9.5	14.4	15.7	10.6	15.3	13.2	15.1
46 Grand Avenue, North Branch Chicago River	ND	ND	12.4	12.9	10.8	16.9	16.0	16.3	17.3	14.5	21.3
74 Lake Shore Drive, Chicago River	ND	ND	4.3	3.6	1.2	4.7	5.8	5.6	7.1	5.3	4.9
100 Wells Street, Chicago River	11.9	10.2	7.2	7.2	4.1	5.7	9.0	4.7	9.0	4.5	6.3
39 Madison Street, South Branch Chicago River	ND	ND	11.3	10.7	9.5	12.6	13.8	18.3	14.5	8.7	14.0
108 Loomis Street, South Branch Chicago River	10.7	11.0	11.2	13.1	11.4	13.1	17.7	18.5	16.2	12.6	11.8
99 Archer Avenue, South Fork South Branch Chicago River	15.3	12.8	17.1	15.3	11.7	12.0	14.8	10.1	12.4	12.5	13.2
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	12.9	12.8	12.0	15.4	15.6	17.9	17.8	12.7	14.6
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	11.2	12.5	13.4	23.3	12.8	16.8	16.8	16.6	19.2	13.0	17.8
41 Harlem Avenue, Chicago Sanitary and Ship Canal	7.0	9.3	9.0	12.1	7.7	9.7	10.3	15.3	12.3	9.6	8.5
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	8.3	8.4	6.8	10.7	13.3	21.8	11.7	7.5	9.0
48 Stephen Street, Chicago Sanitary and Ship Canal	11.9	13.3	10.9	13.4	9.3	14.0	19.7	23.8	18.2	15.0	15.8
92 Lockport Forebay, Chicago Sanitary and Ship Canal	10.3	9.9	8.7	11.2	10.4	15.8	22.6	12.9	15.8	14.5	14.6
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	9.8	9.2	4.8	5.0	5.7	5.8	7.3	6.7	9.7
50 Burnham Avenue, Wolf Lake	ND	ND	9.0	5.8	4.3	6.6	5.3	5.2	6.1	5.3	5.4
55 130th Street, Calumet River	5.2	ND	4.3	6.0	5.1	8.4	7.7	6.8	8.5	6.5	7.7
86 Burnham Avenue, Grand Calumet River	11.1	13.6	12.7	16.5	14.4	13.8	23.9	18.5	21.0	49.9	18.9
56 Indiana Avenue, Little Calumet River	16.8	16.4	10.3	11.9	12.9	19.3	33.7	21.6	24.4	25.0	22.0
76 Halsted Street, Little Calumet River	13.5	11.2	8.6	15.1	7.6	12.5	18.8	10.6	12.9	11.3	14.8
52 Wentworth Avenue, Little Calumet River	55.3	ND	25.4	89.0	74.3	51.0	30.5	44.7	44.1	37.9	32.4
54 Joe Orr Road, Thorn Creek	ND	ND	12.4	34.7	27.4	20.1	8.0	7.1	9.9	115.4	17.6
97 170th Street, Thorn Creek	55.0	ND	25.2	81.1	53.4	40.3	23.8	35.5	32.4	55.4	40.5
57 Ashland Avenue, Little Calumet River	54.5	31.2	25.9	65.2	55.1	35.3	19.9	34.6	26.5	45.7	30.5
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	11.7	34.5	25.3	17.4	17.7	17.5	16.6	15.0	18.8
59 Cicero Avenue, Calumet-Sag Channel	31.7	21.1	13.3	26.2	18.5	22.0	22.8	20.3	24.9	14.3	20.3
43 Route 83, Calumet-Sag Channel	23.5	17.6	15.9	20.5	14.0	23.5	17.4	16.6	20.1	15.5	20.1
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	18.3	12.5	17.6	14.1	21.9	13.9	25.2	15.9	15.3
110 Springinguth Road, West Branch DuPage River	10.6	36.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	15.6	10.8	20.1	11.8	21.6	15.3	10.8	12.3	15.4
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	26.7	26.3	34.5	27.5	34.0	38.5	32.5
111 Arlington Drive, West Branch DuPage River	29.6	28.3	33.1	24.8	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	20.3	21.3	13.2	21.9	31.4	24.4	32.1	33.0	31.2	41.4	25.5
80 Arlington Heights Road, Salt Creek	ND	ND	7.6	9.5	8.5	13.8	8.4	10.2	10.2	9.8	9.0
18 Devon Avenue, Salt Creek	9.5	15.3	8.8	9.7	11.1	16.7	12.4	16.3	14.1	14.2	19.0
24 Wolf Road, Salt Creek	ND	ND	27.3	17.5	23.5	24.1	31.6	30.6	39.4	28.9	23.1
109 Brookfield Avenue, Salt Creek	14.3	20.4	17.4	16.3	18.3	25.5	30.1	25.1	42.7	25.1	19.9
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	12.5	42.3	28.5	25.2	21.0	18.8	50.8	26.4	45.3	29.3	29.2
78 Wille Road, Higgins Creek	4.1	8.4	7.0	4.2	2.4	7.0	8.8	6.5	5.4	3.4	7.6
12 Lake-Cook Road, Buffalo Creek	9.3	15.3	18.5	19.7	27.7	27.1	29.3	41.1	29.4	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	15.6	16.2	17.4	20.1	23.3	21.8	27.3	24.0	23.2
17 Oakton Street, Des Plaines River	ND	ND	11.7	17.4	16.8	22.3	26.1	22.9	26.1	17.9	23.0
19 Belmont Avenue, Des Plaines River	17.8	16.3	16.8	15.8	18.5	23.0	31.6	26.5	29.4	23.2	22.3
20 Roosevelt Road, Des Plaines River	ND	ND	16.1	15.9	22.0	24.3	27.6	26.5	26.9	23.8	21.7
22 Ogden Avenue, Des Plaines River	16.3	17.8	25.8	17.5	20.5	27.6	29.5	29.7	36.3	30.6	21.3
23 Willow Springs Road, Des Plaines River	12.7	15.5	21.1	18.5	17.4	26.2	27.5	23.9	27.8	22.3	24.0
29 Stephen Street, Des Plaines River	ND	ND	28.4	18.5	23.6	29.5	28.6	22.8	29.3	29.8	26.5
91 Material Service Road, Des Plaines River	12.7	18.8	18.7	20.8	23.1	26.3	26.4	25.9	27.7	35.0	28.2

ND = No Data.

TABLE AII-16: VOLATILE SUSPENDED SOLIDS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	6.60	6.70	3.60	7.55	11.36	2.25	13.60	6.75	9.38
103 Golf Road, West Fork North Branch Chicago River	ND	ND	5.71	4.09	2.40	7.82	5.80	2.91	7.42	7.40	7.30
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.25	2.78	1.56	4.50	6.40	3.90	11.91	5.10	4.30
104 Glenview Road, North Branch Chicago River	ND	ND	4.57	7.67	1.22	5.58	6.17	3.55	11.67	5.50	5.42
32 Lake-Cook Road, Skokie River	ND	ND	4.33	5.00	1.33	4.80	6.00	3.20	9.08	6.00	5.20
105 Frontage Road, Skokie River	ND	ND	4.00	3.92	1.33	6.75	5.67	4.64	8.50	5.75	5.50
34 Dempster Street, North Branch Chicago River	ND	ND	5.00	3.36	1.88	5.92	5.91	2.55	11.75	6.55	5.25
96 Albany Avenue, North Branch Chicago River	5.55	6.25	3.75	4.00	1.82	4.83	5.50	3.73	6.25	5.55	5.27
35 Central Street, North Shore Channel	ND	ND	5.20	2.50	1.13	2.89	2.56	2.00	3.11	3.38	1.67
112 Dempster Street, North Shore Channel	6.56	6.20	4.80	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	5.29	3.67	3.18	4.09	4.27	3.75	5.33	3.58	3.75
36 Touhy Avenue, North Shore Channel	5.25	5.45	4.17	4.67	1.45	4.44	4.58	2.58	5.08	4.92	4.92
101 Foster Avenue, North Shore Channel	ND	ND	4.00	3.17	0.83	4.50	6.00	1.83	5.33	4.23	4.75
37 Wilson Avenue, North Branch Chicago River	ND	ND	3.67	3.33	0.67	4.83	5.08	3.08	5.58	4.75	3.92
73 Diversey Parkway, North Branch Chicago River	4.58	6.42	4.50	3.42	0.00	3.33	3.92	3.25	4.83	3.50	3.67
46 Grand Avenue, North Branch Chicago River	ND	ND	3.86	3.17	0.92	3.67	4.33	4.27	5.83	3.92	4.58
74 Lake Shore Drive, Chicago River	ND	ND	2.50	0.92	0.00	0.67	1.70	1.55	4.82	1.40	0.33
100 Wells Street, Chicago River	4.55	4.42	3.36	1.83	0.00	1.55	2.83	1.45	6.83	1.42	0.67
39 Madison Street, South Branch Chicago River	ND	ND	3.67	3.33	0.92	3.73	3.42	3.36	6.92	1.50	1.92
108 Loomis Street, South Branch Chicago River	4.17	4.00	4.08	3.08	2.00	3.42	4.36	3.50	6.83	2.60	2.50
99 Archer Avenue, South Fork South Branch Chicago River	9.27	6.30	7.50	6.83	3.40	5.91	6.75	2.55	6.29	4.36	4.75
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	4.29	3.42	2.25	4.55	4.17	3.42	8.00	3.00	3.00
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	4.64	4.67	4.33	6.58	1.92	4.75	4.75	4.08	7.00	2.50	4.17
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.45	4.25	3.75	3.58	0.89	4.08	3.67	3.67	5.83	3.50	1.67
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	3.29	2.92	0.67	3.80	3.25	3.91	6.67	2.09	1.83
48 Stephen Street, Chicago Sanitary and Ship Canal	4.45	4.08	3.67	3.25	0.58	4.40	4.92	5.36	7.50	2.91	2.17
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.43	4.30	3.65	2.80	1.08	3.82	4.96	3.00	4.88	3.21	2.94
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	3.00	1.50	0.00	1.00	0.33	1.20	2.09	3.09	0.40
50 Burnham Avenue, Wolf Lake	ND	ND	3.71	2.27	1.27	3.50	2.42	2.91	4.00	2.50	1.58
55 130th Street, Calumet River	4.00	ND	2.00	0.80	0.00	1.78	1.67	1.90	2.55	2.27	0.45
86 Burnham Avenue, Grand Calumet River	7.50	6.89	8.00	7.30	8.00	4.40	12.60	8.70	9.18	20.90	8.67
56 Indiana Avenue, Little Calumet River	4.40	4.00	3.90	1.90	1.10	3.13	6.00	3.56	5.27	4.67	3.67
76 Halsted Street, Little Calumet River	5.25	4.00	3.64	4.27	0.40	3.82	5.33	2.27	4.91	3.58	2.00
52 Wentworth Avenue, Little Calumet River	9.00	ND	4.71	12.20	8.82	8.50	6.60	6.82	7.27	7.55	5.89
54 Joe Orr Road, Thorn Creek	ND	ND	3.00	5.20	2.44	4.44	1.67	1.70	2.89	19.13	2.71
97 170th Street, Thorn Creek	8.67	ND	4.00	11.20	7.55	6.67	4.18	4.09	5.82	7.64	6.45
57 Ashland Avenue, Little Calumet River	8.64	6.20	5.73	9.60	6.70	6.56	4.80	5.18	6.18	9.00	5.10
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	3.86	5.82	3.00	3.73	4.75	3.09	5.73	2.58	3.92
59 Cicero Avenue, Calumet-Sag Channel	5.82	4.27	3.70	4.64	2.30	4.20	4.45	3.64	6.55	3.00	3.08
43 Route 83, Calumet-Sag Channel	5.09	4.36	4.64	3.91	1.55	3.80	3.70	4.00	4.36	4.55	4.30
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	5.14	3.18	3.50	3.64	4.73	3.36	6.17	4.91	3.60
110 Springinguth Road, West Branch DuPage River	5.75	11.75	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	7.00	5.17	5.42	5.42	5.75	3.67	4.33	5.58	5.18
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	6.67	7.58	8.42	8.33	8.58	10.08	8.09
111 Arlington Drive, West Branch DuPage River	6.45	6.67	6.92	5.92	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.00	6.50	5.45	6.10	8.25	7.50	8.78	9.70	9.00	11.11	8.50
80 Arlington Heights Road, Salt Creek	ND	ND	3.86	3.64	2.58	4.83	3.25	3.17	5.08	4.75	3.55
18 Devon Avenue, Salt Creek	4.00	5.25	3.75	3.45	2.20	5.18	4.25	5.83	6.00	4.50	4.82
24 Wolf Road, Salt Creek	ND	ND	6.29	3.45	3.90	4.92	6.08	6.91	9.42	6.58	5.20
109 Brookfield Avenue, Salt Creek	4.78	5.36	4.50	3.73	2.55	5.64	6.00	6.00	9.25	5.17	5.80
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	4.25	10.25	6.13	4.80	6.00	7.25	9.80	5.20	11.00	9.50	7.60
78 Wille Road, Higgins Creek	4.00	5.08	3.55	1.45	1.33	2.92	3.50	3.25	3.17	1.17	3.40
12 Lake-Cook Road, Buffalo Creek	4.00	4.71	3.67	4.78	5.14	6.33	6.91	8.67	7.44	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	3.71	3.82	3.27	5.42	6.08	5.50	8.33	5.75	6.80
17 Oakton Street, Des Plaines River	ND	ND	3.71	4.91	3.45	5.45	7.18	5.73	7.58	6.08	5.30
19 Belmont Avenue, Des Plaines River	4.70	4.75	4.17	3.82	3.36	5.83	6.58	6.82	8.17	5.83	5.50
20 Roosevelt Road, Des Plaines River	ND	ND	4.71	4.45	4.00	5.45	6.58	5.36	8.00	7.00	5.40
22 Ogden Avenue, Des Plaines River	4.56	4.83	5.58	4.27	3.33	6.27	6.36	7.09	8.75	7.00	4.70
23 Willow Springs Road, Des Plaines River	4.22	4.27	5.42	4.45	3.45	6.45	6.18	5.73	7.75	6.17	5.90
29 Stephen Street, Des Plaines River	ND	ND	8.86	4.73	5.08	7.45	6.17	4.64	8.83	7.75	7.20
91 Material Service Road, Des Plaines River	4.40	5.33	4.83	5.18	5.17	7.75	6.08	5.64	7.50	8.92	8.00

ND = No Data.

TABLE AII-17: TOTAL DISSOLVED SOLIDS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	1446	1258	1135	955	965	1577	807	1018	1244
103 Golf Road, West Fork North Branch Chicago River	ND	ND	1154	1039	1036	833	840	1134	885	1202	753
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	885	747	834	637	776	780	724	864	624
104 Glenview Road, North Branch Chicago River	ND	ND	802	680	770	676	771	747	654	737	689
32 Lake-Cook Road, Skokie River	ND	ND	914	690	767	615	699	806	661	836	691
105 Frontage Road, Skokie River	ND	ND	757	651	699	643	750	677	630	677	596
34 Dempster Street, North Branch Chicago River	ND	ND	999	718	883	699	735	832	712	860	786
96 Albany Avenue, North Branch Chicago River	920	756	786	766	868	751	883	837	773	917	662
35 Central Street, North Shore Channel	ND	ND	559	305	248	258	316	254	219	236	239
112 Dempster Street, North Shore Channel	325	425	506	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	495	483	403	394	425	432	364	412	329
36 Touhy Avenue, North Shore Channel	560	476	502	636	527	614	545	641	464	500	496
101 Foster Avenue, North Shore Channel	ND	ND	562	618	559	591	569	698	479	534	480
37 Wilson Avenue, North Branch Chicago River	ND	ND	651	645	676	614	642	741	513	598	551
73 Diversey Parkway, North Branch Chicago River	639	554	515	576	628	676	687	603	507	557	528
46 Grand Avenue, North Branch Chicago River	ND	ND	645	583	584	575	690	658	538	582	570
74 Lake Shore Drive, Chicago River	ND	ND	509	459	309	240	267	359	249	269	295
100 Wells Street, Chicago River	379	451	455	501	407	324	428	404	328	364	376
39 Madison Street, South Branch Chicago River	ND	ND	584	685	522	483	547	530	441	474	450
108 Loomis Street, South Branch Chicago River	562	525	438	566	580	492	531	573	481	463	448
99 Archer Avenue, South Fork South Branch Chicago River	578	522	514	563	553	479	576	549	413	461	458
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	631	548	560	485	541	599	463	464	472
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	598	528	536	554	533	485	587	630	462	482	496
41 Harlem Avenue, Chicago Sanitary and Ship Canal	674	560	571	615	614	570	608	749	517	520	541
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	668	648	629	557	615	594	536	571	588
48 Stephen Street, Chicago Sanitary and Ship Canal	670	598	618	651	656	531	620	583	565	576	591
92 Lockport Forebay, Chicago Sanitary and Ship Canal	706	625	589	650	658	588	706	634	568	604	602
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	252	270	224	229	221	236	237	217	225
50 Burnham Avenue, Wolf Lake	ND	ND	376	342	323	297	295	289	235	273	269
55 130th Street, Calumet River	321	ND	468	400	357	387	397	388	345	293	332
86 Burnham Avenue, Grand Calumet River	626	774	595	516	556	768	770	728	844	615	768
56 Indiana Avenue, Little Calumet River	450	365	530	453	407	421	454	457	404	345	388
76 Halsted Street, Little Calumet River	621	589	611	611	579	566	695	637	577	548	564
52 Wentworth Avenue, Little Calumet River	436	ND	780	505	572	560	731	634	656	574	712
54 Joe Orr Road, Thorn Creek	ND	ND	1577	1055	1356	1247	1592	1409	1480	1178	1512
97 170th Street, Thorn Creek	863	ND	1127	899	1020	943	1163	974	1066	1196	1124
57 Ashland Avenue, Little Calumet River	811	907	923	723	774	708	833	795	851	879	854
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	747	645	657	557	712	588	621	617	608
59 Cicero Avenue, Calumet-Sag Channel	601	624	673	679	598	555	672	602	658	611	646
43 Route 83, Calumet-Sag Channel	609	623	610	623	665	559	651	612	622	610	610
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	777	726	799	652	807	770	779	750	740
110 Springinsguth Road, West Branch DuPage River	937	744	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	633	674	633	594	627	631	645	607	635
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	912	638	723	643	649	663	654
111 Arlington Drive, West Branch DuPage River	709	645	630	694	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	940	695	923	838	726	701	980	941	773	1034	903
80 Arlington Heights Road, Salt Creek	ND	ND	838	777	820	708	957	779	778	723	663
18 Devon Avenue, Salt Creek	874	722	741	790	880	657	970	766	792	851	721
24 Wolf Road, Salt Creek	ND	ND	813	799	853	728	895	783	698	794	723
109 Brookfield Avenue, Salt Creek	752	744	715	789	827	690	857	761	722	784	772
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	1196	837	797	712	1162	703	1161	623	1118	1081	1040
78 Wille Road, Higgins Creek	754	717	687	797	758	781	824	780	706	713	688
12 Lake-Cook Road, Buffalo Creek	773	653	844	764	891	690	923	775	790	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	670	624	670	549	723	642	709	718	664
17 Oakton Street, Des Plaines River	ND	ND	685	665	721	549	737	634	751	761	651
19 Belmont Avenue, Des Plaines River	736	681	654	672	726	594	812	662	749	760	707
20 Roosevelt Road, Des Plaines River	ND	ND	670	687	725	584	807	677	744	752	691
22 Ogden Avenue, Des Plaines River	705	701	671	707	750	590	783	690	723	747	691
23 Willow Springs Road, Des Plaines River	722	701	691	712	739	595	801	719	716	751	675
29 Stephen Street, Des Plaines River	ND	ND	735	696	727	593	822	705	729	743	648
91 Material Service Road, Des Plaines River	749	685	694	688	739	610	801	694	743	770	679

ND = No Data.

TABLE AII-18: PHENOLS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	5.0	5.0	0.5	0.5	0.0	1.0	0.8	6.8	8.9
103 Golf Road, West Fork North Branch Chicago River	ND	ND	5.0	5.0	0.6	0.5	0.0	1.7	1.1	9.9	8.7
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	5.0	5.0	0.0	0.0	0.0	1.5	0.3	11.4	11.5
104 Glenview Road, North Branch Chicago River	ND	ND	5.0	5.4	0.0	0.0	0.0	0.0	0.3	6.3	7.6
32 Lake-Cook Road, Skokie River	ND	ND	5.0	5.1	0.6	0.0	0.0	0.3	0.3	8.0	11.6
105 Frontage Road, Skokie River	ND	ND	5.0	5.0	0.6	0.4	0.0	1.1	1.2	5.6	5.7
34 Dempster Street, North Branch Chicago River	ND	ND	5.0	5.0	0.0	0.0	0.0	0.9	0.3	8.4	6.8
96 Albany Avenue, North Branch Chicago River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.3	8.3	8.9
35 Central Street, North Shore Channel	ND	ND	5.0	5.0	0.0	0.0	0.0	0.3	0.3	4.3	6.6
112 Dempster Street, North Shore Channel	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	5.0	5.0	0.0	0.0	0.0	1.5	1.0	7.1	7.8
36 Touhy Avenue, North Shore Channel	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.5	9.1	9.4
101 Foster Avenue, North Shore Channel	ND	ND	5.0	5.0	0.0	0.0	0.0	0.5	1.0	9.8	9.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	5.0	5.0	0.0	0.0	0.0	1.2	1.0	8.5	8.9
73 Diversey Parkway, North Branch Chicago River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.1	1.0	10.8	8.4
46 Grand Avenue, North Branch Chicago River	ND	ND	5.0	5.0	0.0	0.0	0.0	0.8	1.3	9.8	10.3
74 Lake Shore Drive, Chicago River	ND	ND	5.0	5.1	0.0	0.0	0.0	0.4	0.0	4.3	4.4
100 Wells Street, Chicago River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	0.3	4.8	7.6
39 Madison Street, South Branch Chicago River	ND	ND	5.0	5.0	0.0	0.0	0.0	0.5	0.0	7.6	9.1
108 Loomis Street, South Branch Chicago River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.5	7.7	8.6
99 Archer Avenue, South Fork South Branch Chicago River	5.2	5.0	5.7	5.6	0.7	0.5	0.0	0.3	0.7	8.7	9.5
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	5.0	5.0	0.5	0.0	0.0	0.6	0.7	8.3	8.3
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	5.1	0.0	0.0	0.0	1.5	0.9	6.8	7.9
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	5.0	0.7	0.0	0.0	0.8	0.5	6.6	8.5
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	5.0	5.0	0.5	0.0	0.0	0.5	0.3	9.5	9.7
48 Stephen Street, Chicago Sanitary and Ship Canal	5.0	5.0	5.0	5.3	0.5	0.0	0.0	0.0	0.0	9.2	9.0
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.0	5.0	4.9	5.0	0.2	0.0	0.0	1.2	0.8	8.8	8.6
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	5.0	5.0	0.0	0.0	0.0	0.4	0.9	2.0	2.7
50 Burnham Avenue, Wolf Lake	ND	ND	5.0	5.0	0.0	0.0	0.0	0.0	0.0	5.8	7.4
55 130th Street, Calumet River	ND	ND	5.0	5.0	0.0	0.0	0.0	0.0	0.4	4.9	3.6
86 Burnham Avenue, Grand Calumet River	5.9	5.1	8.7	5.5	0.7	1.4	1.1	2.3	1.9	16.1	11.9
56 Indiana Avenue, Little Calumet River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.0	0.3	5.0	5.6
76 Halsted Street, Little Calumet River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.6	0.9	9.9	8.9
52 Wentworth Avenue, Little Calumet River	ND	ND	5.0	5.0	0.0	0.0	0.0	1.3	0.8	14.4	22.4
54 Joe Orr Road, Thorn Creek	ND	ND	5.0	5.0	0.0	0.0	0.0	1.2	0.0	13.3	9.3
97 170th Street, Thorn Creek	ND	ND	5.0	5.0	0.0	0.0	0.0	1.0	0.0	9.0	9.7
57 Ashland Avenue, Little Calumet River	5.0	5.0	5.0	5.0	0.6	0.0	0.0	0.4	0.3	10.2	10.9
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	5.0	5.0	0.5	0.0	0.0	1.1	0.3	9.1	9.3
59 Cicero Avenue, Calumet-Sag Channel	5.0	5.0	5.0	5.0	5.9	0.0	0.0	0.3	0.5	10.5	10.3
43 Route 83, Calumet-Sag Channel	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.0	0.4	10.0	9.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	5.0	5.0	0.6	0.0	0.0	1.0	0.0	10.4	8.6
110 Springinsguth Road, West Branch DuPage River	5.0	5.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	5.0	5.0	0.0	0.0	0.0	1.0	0.0	9.5	13.3
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.0	0.0	0.0	0.6	0.3	8.2	9.1
111 Arlington Drive, West Branch DuPage River	5.0	5.0	5.0	5.0	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.5	0.4	10.6	8.4
80 Arlington Heights Road, Salt Creek	ND	ND	5.0	5.0	0.0	0.0	0.0	0.6	0.5	6.0	9.3
18 Devon Avenue, Salt Creek	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.2	0.0	5.5	10.4
24 Wolf Road, Salt Creek	ND	ND	5.0	5.0	0.6	0.4	0.4	0.6	1.2	5.8	6.7
109 Brookfield Avenue, Salt Creek	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.5	0.9	8.6	7.6
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	5.0	5.0	5.0	5.0	0.0	0.0	0.0	1.9	11.3	13.0	
78 Wille Road, Higgins Creek	5.0	5.0	5.0	5.0	0.6	0.0	0.4	1.6	1.0	8.1	15.5
12 Lake-Cook Road, Buffalo Creek	ND	ND	5.0	5.0	0.0	0.0	0.0	0.3	0.9	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	5.1	5.0	0.5	0.0	0.5	0.7	0.0	6.2	7.6
17 Oakton Street, Des Plaines River	ND	ND	5.0	5.0	0.0	0.0	0.0	1.1	0.3	6.8	7.9
19 Belmont Avenue, Des Plaines River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	1.3	6.5	9.5
20 Roosevelt Road, Des Plaines River	ND	ND	5.0	5.0	0.0	0.0	0.5	0.5	0.6	8.4	9.7
22 Ogden Avenue, Des Plaines River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.6	0.7	7.6	8.8
23 Willow Springs Road, Des Plaines River	5.0	5.0	5.0	5.0	0.0	0.0	0.6	0.7	2.1	7.6	8.7
29 Stephen Street, Des Plaines River	ND	ND	5.0	5.0	0.4	0.0	0.4	0.3	0.9	6.1	8.4
91 Material Service Road, Des Plaines River	5.0	5.0	5.0	5.0	0.0	0.0	0.0	0.3	1.3	10.5	7.5

ND = No Data.

TABLE AII-19: SULFATE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	55.4	56.8	49.2	47.4	52.9	46.6	53.3	63.0	76.5
103 Golf Road, West Fork North Branch Chicago River	ND	ND	64.4	62.0	58.0	56.2	63.1	68.9	77.9	75.4	75.3
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	71.0	48.6	46.7	45.1	52.7	57.1	68.0	86.3	76.3
104 Glenview Road, North Branch Chicago River	ND	ND	63.0	52.8	54.4	53.0	62.7	60.3	66.8	65.1	69.8
32 Lake-Cook Road, Skokie River	ND	ND	60.9	52.6	50.9	51.0	60.0	53.3	61.6	65.4	76.6
105 Frontage Road, Skokie River	ND	ND	63.3	54.3	54.2	55.0	62.0	52.7	67.8	63.4	67.4
34 Dempster Street, North Branch Chicago River	ND	ND	65.1	56.0	54.6	51.9	60.6	60.3	71.5	68.6	72.4
96 Albany Avenue, North Branch Chicago River	59.3	50.4	56.0	56.4	53.0	54.3	63.6	59.7	73.1	68.3	72.3
35 Central Street, North Shore Channel	ND	ND	49.8	30.0	25.3	27.2	34.6	30.4	28.7	26.8	33.8
112 Dempster Street, North Shore Channel	33.8	31.6	46.2	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	46.0	40.3	36.7	38.0	44.1	39.9	43.8	40.9	41.7
36 Touhy Avenue, North Shore Channel	48.0	40.5	44.4	45.5	41.9	47.9	52.1	49.1	50.8	46.6	51.7
101 Foster Avenue, North Shore Channel	ND	ND	48.4	45.4	43.2	46.8	52.9	50.6	51.3	59.6	56.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	49.0	46.5	47.3	46.7	54.8	54.1	58.0	50.8	59.9
73 Diversey Parkway, North Branch Chicago River	53.1	44.0	46.7	46.9	47.3	47.9	56.1	52.3	55.8	50.9	62.2
46 Grand Avenue, North Branch Chicago River	ND	ND	53.1	47.5	44.2	45.8	54.9	53.6	57.4	54.1	60.6
74 Lake Shore Drive, Chicago River	ND	ND	37.5	33.5	25.8	26.3	30.0	31.7	36.6	29.7	36.8
100 Wells Street, Chicago River	34.5	38.8	40.9	40.7	31.2	32.0	40.9	36.8	39.1	35.4	40.5
39 Madison Street, South Branch Chicago River	ND	ND	47.7	48.1	39.8	42.1	47.8	44.9	49.6	47.6	51.8
108 Loomis Street, South Branch Chicago River	45.5	43.6	45.0	44.4	41.4	43.9	52.2	47.2	52.2	49.8	55.2
99 Archer Avenue, South Fork South Branch Chicago River	42.9	41.9	41.4	44.8	44.0	41.8	55.1	46.1	51.1	56.0	52.8
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	48.6	45.1	41.2	43.1	49.2	46.3	52.0	49.5	53.0
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	47.4	43.3	46.8	45.7	43.0	41.9	53.6	48.5	51.9	50.1	55.4
41 Harlem Avenue, Chicago Sanitary and Ship Canal	72.7	60.3	59.3	62.5	61.0	56.2	69.4	67.3	72.1	70.7	76.4
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	71.1	69.6	65.0	60.9	67.5	72.8	75.1	74.2	80.8
48 Stephen Street, Chicago Sanitary and Ship Canal	87.6	81.8	84.8	75.8	75.5	65.8	78.7	83.8	89.6	85.6	91.7
92 Lockport Forebay, Chicago Sanitary and Ship Canal	92.4	86.3	87.8	80.9	82.5	76.2	86.0	85.7	86.9	88.1	89.8
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	27.7	25.5	24.5	26.6	30.2	32.1	29.9	27.0	28.3
50 Burnham Avenue, Wolf Lake	ND	ND	47.6	46.1	41.4	47.5	47.8	42.6	39.4	41.0	43.5
55 130th Street, Calumet River	ND	ND	64.3	53.1	52.7	61.9	63.2	82.7	60.7	55.2	57.2
86 Burnham Avenue, Grand Calumet River	127.2	161.1	70.6	93.0	96.1	145.6	162.3	196.1	262.4	176.9	204.9
56 Indiana Avenue, Little Calumet River	60.7	49.6	60.5	60.3	61.2	64.4	72.4	90.1	74.7	64.1	70.4
76 Halsted Street, Little Calumet River	85.2	83.3	81.4	82.7	75.2	76.4	97.7	87.7	91.0	91.3	91.6
52 Wentworth Avenue, Little Calumet River	ND	ND	123.9	77.7	96.3	98.1	134.9	118.4	130.0	116.2	143.9
54 Joe Orr Road, Thorn Creek	ND	ND	723.7	450.9	509.8	506.7	716.6	596.3	620.0	494.6	620.8
97 170th Street, Thorn Creek	ND	ND	437.7	267.2	318.3	298.3	422.5	352.0	419.3	465.3	403.1
57 Ashland Avenue, Little Calumet River	245.1	259.8	269.0	171.3	182.2	166.0	270.8	223.0	241.5	289.4	235.0
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	111.6	104.2	138.1	88.7	107.4	91.4	107.7	118.2	116.5
59 Cicero Avenue, Calumet-Sag Channel	108.5	118.5	120.0	103.0	96.1	99.3	134.4	94.2	123.1	120.4	128.6
43 Route 83, Calumet-Sag Channel	106.9	113.8	99.7	94.4	103.5	93.7	113.0	104.5	117.1	130.0	122.7
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	48.3	44.3	41.6	42.0	52.7	53.9	71.5	54.6	66.7
110 Springinguth Road, West Branch DuPage River	84.2	66.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	61.1	60.9	57.7	60.0	70.8	65.7	81.8	68.1	77.2
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	59.1	61.0	68.0	65.3	81.9	71.4	78.0
111 Arlington Drive, West Branch DuPage River	75.7	67.2	63.1	60.7	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	69.7	62.1	59.9	65.2	46.3	62.4	71.1	62.5	81.7	79.4	93.3
80 Arlington Heights Road, Salt Creek	ND	ND	75.6	61.9	68.0	62.5	75.1	76.8	85.0	82.9	84.9
18 Devon Avenue, Salt Creek	78.7	68.2	72.0	65.9	72.1	61.6	75.0	75.7	84.5	83.2	84.6
24 Wolf Road, Salt Creek	ND	ND	81.1	73.5	75.7	77.3	82.8	84.6	87.0	92.2	96.7
109 Brookfield Avenue, Salt Creek	88.8	73.7	76.8	71.8	72.5	71.7	79.2	79.9	85.2	88.4	97.9
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	48.8	43.5	46.9	38.7	39.4	36.3	48.7	37.5	47.1	46.7	66.3
78 Wille Road, Higgins Creek	91.8	79.8	76.7	85.7	77.7	81.7	90.0	91.0	91.7	103.6	100.2
12 Lake-Cook Road, Buffalo Creek	ND	ND	84.0	73.4	76.8	69.5	87.6	70.8	111.5	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	64.6	57.7	58.7	49.4	72.3	75.7	97.0	84.7	88.9
17 Oakton Street, Des Plaines River	ND	ND	64.3	59.0	59.7	52.0	69.8	65.8	92.5	112.2	89.9
19 Belmont Avenue, Des Plaines River	70.5	69.5	69.3	61.3	61.5	57.5	75.3	70.6	90.7	88.0	91.2
20 Roosevelt Road, Des Plaines River	ND	ND	65.3	60.9	61.3	54.4	75.5	70.5	89.7	100.1	90.6
22 Ogden Avenue, Des Plaines River	73.8	71.0	71.7	63.0	63.6	56.9	74.7	68.8	90.9	85.1	87.9
23 Willow Springs Road, Des Plaines River	76.4	69.7	74.6	64.2	65.2	58.0	77.7	73.1	88.2	89.3	92.8
29 Stephen Street, Des Plaines River	ND	ND	68.7	63.6	65.0	57.3	76.7	76.9	91.1	90.5	91.4
91 Material Service Road, Des Plaines River	78.2	69.4	73.3	62.7	66.8	61.0	75.8	74.9	93.7	105.3	94.3

ND = No Data.

TABLE AII-20: FATS, OILS, AND GREASES MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00	ND	ND
112 Dempster Street, North Shore Channel	5.00	5.00	5.00	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	5.00	5.00	0.00	0.00	0.00	0.42	0.42	0.73	2.48	
36 Touhy Avenue, North Shore Channel	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.30	0.27	2.14	2.37	
101 Foster Avenue, North Shore Channel	ND	ND	5.00	5.00	0.00	0.00	0.00	0.33	0.67	2.02	1.94	
37 Wilson Avenue, North Branch Chicago River	ND	ND	5.00	5.00	0.00	0.00	0.00	0.67	0.42	2.45	1.85	
73 Diversey Parkway, North Branch Chicago River	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.83	0.86	2.33	
46 Grand Avenue, North Branch Chicago River	ND	ND	5.00	5.00	0.00	0.00	0.00	0.27	0.42	1.85	2.97	
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	5.00	5.00	0.00	0.00	0.00	0.27	0.00	0.68	1.93	
108 Loomis Street, South Branch Chicago River	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.00	0.00	0.80	1.64	
99 Archer Avenue, South Fork South Branch Chicago River	5.37	5.00	5.11	5.19	0.00	0.00	0.00	0.00	0.00	0.55	2.77	
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	11.71	5.00	0.00	0.00	0.00	0.67	0.00	0.73	3.03	
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	5.00	5.00	5.00	5.00	0.00	0.00	0.00	0.25	0.00	1.24	1.59	
41 Harlem Avenue, Chicago Sanitary and Ship Canal	5.82	5.00	5.00	5.00	0.00	0.00	1.17	0.00	0.00	0.65	2.03	
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	5.00	5.00	0.00	0.00	0.00	0.55	0.00	0.93	2.64	
48 Stephen Street, Chicago Sanitary and Ship Canal	5.00	5.00	5.00	6.00	0.00	0.00	0.00	0.00	0.00	1.18	4.29	
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.00	5.00	4.90	5.00	0.00	0.22	0.10	0.14	0.37	1.52	1.95	
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	5.00	5.11	5.00	5.00	0.00	0.00	0.50	0.60	1.00	1.77	1.46	
56 Indiana Avenue, Little Calumet River	5.00	5.13	5.00	5.00	0.00	0.00	0.56	0.00	1.18	0.00	1.41	
76 Halsted Street, Little Calumet River	5.08	5.18	5.00	5.00	0.00	0.00	0.42	0.00	1.18	0.43	1.28	
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	5.00	5.00	0.00	0.00	0.42	0.00	0.73	0.58	1.98	
59 Cicero Avenue, Calumet-Sag Channel	5.00	5.27	5.00	5.00	0.00	0.00	0.45	0.00	0.55	0.78	1.78	
43 Route 83, Calumet-Sag Channel	5.00	5.00	5.00	5.00	0.00	9.80	0.50	0.00	0.73	0.79	2.29	
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-21: TOTAL PHOSPHORUS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	1.160	1.232	1.366	1.260	1.198	1.038	0.964	1.508	2.120
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.586	0.515	0.523	0.397	0.422	0.669	0.572	0.834	0.550
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.125	0.139	0.128	0.016	0.136	0.183	0.158	0.210	0.145
104 Glenview Road, North Branch Chicago River	ND	ND	0.757	0.712	0.866	0.659	0.643	1.028	0.936	1.413	1.014
32 Lake-Cook Road, Skokie River	ND	ND	0.168	0.248	0.126	0.019	0.058	0.175	0.599	0.863	0.237
105 Frontage Road, Skokie River	ND	ND	0.943	0.936	1.053	0.883	0.815	1.246	1.174	1.538	1.223
34 Dempster Street, North Branch Chicago River	ND	ND	0.614	0.616	0.494	0.550	0.602	0.879	0.840	1.199	0.925
96 Albany Avenue, North Branch Chicago River	0.536	0.475	0.608	0.494	0.695	0.538	0.507	0.808	0.760	1.155	0.795
35 Central Street, North Shore Channel	ND	ND	0.140	0.135	0.078	0.077	0.000	0.062	0.056	0.016	0.088
112 Dempster Street, North Shore Channel	0.244	0.290	0.760	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.857	0.618	0.530	0.442	0.432	0.538	0.632	0.444	0.489
36 Touhy Avenue, North Shore Channel	1.375	1.182	1.308	1.251	1.154	1.054	1.040	1.388	1.033	1.241	1.170
101 Foster Avenue, North Shore Channel	ND	ND	1.286	1.118	1.207	1.113	1.082	1.450	1.384	1.248	1.328
37 Wilson Avenue, North Branch Chicago River	ND	ND	1.167	0.974	1.024	1.031	0.961	1.287	1.191	1.130	1.227
73 Diversey Parkway, North Branch Chicago River	1.133	1.070	1.192	0.954	1.048	0.931	0.897	1.112	0.986	0.870	1.065
46 Grand Avenue, North Branch Chicago River	ND	ND	1.029	0.847	0.950	0.836	0.788	1.115	1.004	1.121	0.923
74 Lake Shore Drive, Chicago River	ND	ND	0.333	0.335	0.153	0.003	0.053	0.152	0.125	0.158	0.228
100 Wells Street, Chicago River	0.345	0.575	0.691	0.568	0.336	0.150	0.320	0.308	0.309	0.355	0.443
39 Madison Street, South Branch Chicago River	ND	ND	0.867	0.825	0.649	0.669	0.658	0.709	0.661	0.830	0.908
108 Loomis Street, South Branch Chicago River	0.592	0.692	0.850	0.728	0.657	0.574	0.591	0.678	0.723	0.722	0.860
99 Archer Avenue, South Fork South Branch Chicago River	0.473	0.370	0.658	0.671	0.682	0.485	0.580	0.609	0.590	0.767	0.804
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.814	0.697	0.670	0.611	0.630	0.686	0.702	0.755	0.843
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.573	0.642	0.942	0.598	0.681	0.493	0.637	0.763	0.661	0.746	0.803
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.682	0.725	1.083	0.479	0.791	0.673	0.829	1.008	0.825	0.988	0.953
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.771	0.546	0.837	0.609	0.862	0.830	0.602	0.725	0.978
48 Stephen Street, Chicago Sanitary and Ship Canal	0.764	1.034	1.350	0.833	1.008	0.823	0.928	0.964	0.901	1.168	1.103
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.827	0.892	1.263	0.925	1.121	0.864	0.952	0.852	0.935	1.166	1.014
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.183	0.070	0.018	0.000	0.000	0.011	0.044	0.025	0.060
50 Burnham Avenue, Wolf Lake	ND	ND	0.100	0.083	0.043	0.004	0.000	0.037	0.045	0.023	0.053
55 130th Street, Calumet River	ND	ND	0.100	0.072	0.000	0.004	0.000	0.031	0.038	0.025	0.049
86 Burnham Avenue, Grand Calumet River	0.690	0.622	1.309	0.750	0.919	0.290	0.835	1.209	0.699	0.878	0.584
56 Indiana Avenue, Little Calumet River	0.420	0.575	0.770	0.364	0.369	0.010	0.340	0.189	0.359	0.372	0.538
76 Halsted Street, Little Calumet River	1.725	2.182	2.845	1.660	2.010	1.493	2.035	1.037	1.835	2.083	1.638
52 Wentworth Avenue, Little Calumet River	ND	ND	0.700	0.391	0.568	0.493	0.587	0.585	0.645	0.609	0.543
54 Joe Orr Road, Thorn Creek	ND	ND	1.429	1.186	1.267	1.743	2.664	2.329	2.038	2.113	2.054
97 170th Street, Thorn Creek	ND	ND	1.083	0.757	0.920	1.144	1.383	1.479	1.170	1.574	1.502
57 Ashland Avenue, Little Calumet River	0.527	1.040	1.091	0.494	0.758	0.519	0.993	0.834	0.764	1.061	0.812
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	2.529	1.395	1.578	1.412	1.957	0.963	1.755	2.077	1.562
59 Cicero Avenue, Calumet-Sag Channel	1.491	1.691	2.870	1.582	1.917	1.258	1.803	0.989	1.802	2.214	1.646
43 Route 83, Calumet-Sag Channel	1.473	1.518	1.764	1.426	1.824	1.329	1.378	1.037	1.318	2.266	1.483
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.114	0.093	0.097	0.012	0.000	0.100	0.116	0.087	0.075
110 Springinsguth Road, West Branch DuPage River	0.225	0.263	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	2.157	1.797	2.310	2.340	2.426	2.460	2.270	2.670	2.745
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	1.148	1.747	2.119	2.062	1.911	2.432	2.400
111 Arlington Drive, West Branch DuPage River	2.018	1.958	2.364	1.666	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.200	0.200	0.127	0.399	0.120	0.253	0.000	0.132	0.149	0.108	0.097
80 Arlington Heights Road, Salt Creek	ND	ND	1.401	1.010	1.533	1.588	0.142	0.513	1.791	2.022	1.850
18 Devon Avenue, Salt Creek	1.355	1.517	2.065	1.286	1.643	1.563	0.133	0.548	1.882	1.981	1.899
24 Wolf Road, Salt Creek	ND	ND	1.100	1.015	1.172	1.122	0.761	0.839	1.471	1.896	1.595
109 Brookfield Avenue, Salt Creek	0.889	0.918	1.358	0.915	1.041	0.944	0.733	0.765	1.355	1.603	1.317
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.225	0.200	0.163	0.082	0.000	0.035	0.000	0.112	0.123	0.098	0.108
78 Wille Road, Higgins Creek	1.128	1.125	1.400	0.975	1.018	0.936	1.176	0.813	0.663	1.577	0.662
12 Lake-Cook Road, Buffalo Creek	0.200	0.200	0.150	0.113	0.086	0.012	0.000	0.167	0.122	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.700	0.603	0.773	0.566	0.915	0.934	1.075	1.498	0.985
17 Oakton Street, Des Plaines River	ND	ND	0.657	0.553	0.802	0.502	0.765	0.772	0.873	1.256	0.889
19 Belmont Avenue, Des Plaines River	0.630	0.750	1.058	0.575	0.801	0.532	0.745	0.738	0.816	1.107	0.688
20 Roosevelt Road, Des Plaines River	ND	ND	0.586	0.580	0.734	0.475	0.682	0.700	0.700	1.069	0.631
22 Ogden Avenue, Des Plaines River	0.667	0.833	1.133	0.621	0.787	0.631	0.656	0.697	0.923	1.224	0.811
23 Willow Springs Road, Des Plaines River	0.600	0.691	1.025	0.587	0.733	0.535	0.641	0.647	0.882	1.173	0.796
29 Stephen Street, Des Plaines River	ND	ND	0.643	0.575	0.708	0.535	0.699	0.715	0.930	1.201	0.834
91 Material Service Road, Des Plaines River	0.620	0.658	0.842	0.554	0.678	0.552	0.680	0.733	0.915	1.263	0.778

ND = No Data.

TABLE AII-22: TOTAL CYANIDE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.007	0.006	0.003	0.002	0.000	0.005	0.001	0.005	0.005
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.007	0.006	0.001	0.001	0.000	0.002	0.001	0.003	0.002
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.002	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	0.007	0.006	0.001	0.000	0.000	0.001	0.000	0.002	0.003
32 Lake-Cook Road, Skokie River	ND	ND	0.007	0.005	0.001	0.001	0.000	0.000	0.000	0.001	0.001
105 Frontage Road, Skokie River	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	0.006	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.003
96 Albany Avenue, North Branch Chicago River	0.005	0.006	0.006	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003
35 Central Street, North Shore Channel	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
112 Dempster Street, North Shore Channel	0.005	0.006	0.005	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.006	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.002	0.004
101 Foster Avenue, North Shore Channel	ND	ND	0.005	0.005	0.001	0.001	0.000	0.003	0.001	0.003	0.003
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.003	0.003
73 Diversey Parkway, North Branch Chicago River	0.005	0.006	0.005	0.005	0.001	0.001	0.000	0.002	0.001	0.003	0.003
46 Grand Avenue, North Branch Chicago River	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.001	0.003	0.004
74 Lake Shore Drive, Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001
100 Wells Street, Chicago River	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.002
39 Madison Street, South Branch Chicago River	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.003
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.002
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.003
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.000	0.001	0.000	0.001	0.001	0.002	0.003
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.001	0.001	0.000	0.004	0.003	0.003	0.003
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.004	0.003
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.002	0.001	0.000	0.002	0.003	0.004	0.004
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.006	0.005	0.001	0.000	0.000	0.002	0.003	0.003	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.006	0.000	0.000	0.000	0.001	0.000	0.000	0.001
55 130th Street, Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.006	0.005	0.002	0.000	0.002	0.004	0.003	0.005	0.005
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.003	0.003
52 Wentworth Avenue, Little Calumet River	ND	ND	0.006	0.005	0.001	0.000	0.001	0.006	0.004	0.006	0.016
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.005	0.002	0.001	0.000	0.002	0.002	0.003	0.004
97 170th Street, Thorn Creek	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.002	0.002
57 Ashland Avenue, Little Calumet River	0.005	0.006	0.005	0.006	0.002	0.000	0.000	0.003	0.002	0.003	0.005
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.005	0.002	0.001	0.000	0.002	0.002	0.003	0.004
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.003	0.003
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.002	0.000	0.000	0.001	0.001	0.002	0.003
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.005	0.006	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.005	0.006	0.003	0.001	0.001	0.005	0.004	0.004	0.006
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.003	0.000	0.000	0.003	0.002	0.004	0.004
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.006	0.001	0.000	0.000	0.002	0.000	0.001	0.002
80 Arlington Heights Road, Salt Creek	ND	ND	0.006	0.005	0.003	0.001	0.000	0.002	0.001	0.003	0.004
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.006	0.003	0.001	0.000	0.002	0.001	0.003	0.004
24 Wolf Road, Salt Creek	ND	ND	0.005	0.005	0.002	0.000	0.000	0.001	0.000	0.002	0.003
109 Brookfield Avenue, Salt Creek	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.001	0.002	0.002
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.005	0.005	0.005	0.006	0.000	0.000	0.000	0.000	0.003	0.003	0.004
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.006	0.003	0.000	0.001	0.004	0.002	0.003	0.004
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.002	0.001
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.002	0.001	0.001	0.005	0.002
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.002	0.000	0.003	0.002	0.001	0.009	0.002
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.005	0.001	0.000	0.002	0.002	0.001	0.009	0.002
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.006	0.005	0.001	0.000	0.002	0.002	0.001	0.003	0.002
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.005	0.005	0.000	0.000	0.001	0.002	0.000	0.002	0.002
29 Stephen Street, Des Plaines River	ND	ND	0.006	0.005	0.000	0.000	0.000	0.001	0.000	0.002	0.002
91 Material Service Road, Des Plaines River	0.005	0.005	0.006	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002

ND = No Data.

TABLE AII-23: WEAK ACID DISSOCIABLE CYANIDE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.001
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001
104 Glenview Road, North Branch Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.001	0.001	0.001
32 Lake-Cook Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001
105 Frontage Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
96 Albany Avenue, North Branch Chicago River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001
112 Dempster Street, North Shore Channel	0.005	0.003	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
101 Foster Avenue, North Shore Channel	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
46 Grand Avenue, North Branch Chicago River	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.001
100 Wells Street, Chicago River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001
39 Madison Street, South Branch Chicago River	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
108 Loomis Street, South Branch Chicago River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.002	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.003	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.001
86 Burnham Avenue, Grand Calumet River	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.001	0.000
76 Halsted Street, Little Calumet River	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	0.002	0.001	0.000	0.000	0.000	0.002	0.001	0.002	0.004
54 Joe Orr Road, Thorn Creek	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
97 170th Street, Thorn Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
57 Ashland Avenue, Little Calumet River	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.002	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
43 Route 83, Calumet-Sag Channel	0.005	0.003	0.002	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	0.005	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.002	0.002	0.002	0.000	0.001	0.003	0.002	0.002	0.002
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.001	0.000	0.000	0.002	0.001	0.001	0.002
111 Arlington Drive, West Branch DuPage River	0.005	0.003	0.001	0.001	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	0.002	0.002	0.001	0.000	0.000	0.002	0.001	0.002	0.002
18 Devon Avenue, Salt Creek	0.005	0.003	0.002	0.002	0.001	0.000	0.000	0.001	0.001	0.001	0.002
24 Wolf Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.005	0.002	0.001	0.001	0.001	0.000	0.001	0.001	0.001	0.001	0.001
78 Wille Road, Higgins Creek	0.005	0.003	0.001	0.001	0.001	0.000	0.001	0.002	0.001	0.001	0.001
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
17 Oakton Street, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
19 Belmont Avenue, Des Plaines River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
20 Roosevelt Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.005	0.003	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
23 Willow Springs Road, Des Plaines River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001
29 Stephen Street, Des Plaines River	ND	ND	0.001	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001
91 Material Service Road, Des Plaines River	0.005	0.003	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.001	0.001

ND = No Data.

TABLE AII-24: TOTAL FLUORIDE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.520	0.499	0.505	0.476	0.428	0.345	0.334	0.520	0.553
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.443	0.388	0.374	0.355	0.339	0.401	0.370	0.469	0.360
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.275	0.229	0.226	0.202	0.216	0.361	0.296	0.375	0.289
104 Glenview Road, North Branch Chicago River	ND	ND	0.486	0.410	0.497	0.418	0.425	0.519	0.457	0.584	0.513
32 Lake-Cook Road, Skokie River	ND	ND	0.317	0.314	0.268	0.225	0.229	0.314	0.379	0.483	0.291
105 Frontage Road, Skokie River	ND	ND	0.571	0.511	0.528	0.466	0.441	0.569	0.538	0.614	0.557
34 Dempster Street, North Branch Chicago River	ND	ND	0.486	0.405	0.395	0.383	0.398	0.485	0.438	0.539	0.473
96 Albany Avenue, North Branch Chicago River	0.398	0.367	0.533	0.381	0.417	0.392	0.332	0.478	0.436	0.516	0.439
35 Central Street, North Shore Channel	ND	ND	0.200	0.144	0.134	0.037	0.051	0.198	0.181	0.135	0.136
112 Dempster Street, North Shore Channel	0.182	0.230	0.560	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.557	0.420	0.375	0.272	0.269	0.420	0.456	0.346	0.318
36 Touhy Avenue, North Shore Channel	0.671	0.627	0.733	0.673	0.663	0.614	0.609	0.763	0.662	0.675	0.619
101 Foster Avenue, North Shore Channel	ND	ND	0.714	0.636	0.684	0.614	0.618	0.753	0.683	0.685	0.652
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.700	0.549	0.614	0.543	0.560	0.710	0.634	0.667	0.617
73 Diversey Parkway, North Branch Chicago River	0.647	0.600	0.708	0.593	0.657	0.575	0.563	0.699	0.615	0.667	0.624
46 Grand Avenue, North Branch Chicago River	ND	ND	0.686	0.573	0.623	0.529	0.533	0.688	0.623	0.720	0.601
74 Lake Shore Drive, Chicago River	ND	ND	0.283	0.298	0.208	0.066	0.116	0.229	0.196	0.196	0.229
100 Wells Street, Chicago River	0.282	0.425	0.473	0.426	0.316	0.196	0.280	0.312	0.297	0.316	0.322
39 Madison Street, South Branch Chicago River	ND	ND	0.567	0.552	0.493	0.461	0.409	0.465	0.462	0.551	0.550
108 Loomis Street, South Branch Chicago River	0.450	0.533	0.583	0.508	0.498	0.463	0.430	0.467	0.489	0.557	0.551
99 Archer Avenue, South Fork South Branch Chicago River	0.427	0.460	0.567	0.503	0.554	0.456	0.443	0.472	0.461	0.565	0.516
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.557	0.499	0.505	0.463	0.433	0.467	0.468	0.555	0.525
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.445	0.489	0.567	0.469	0.505	0.418	0.464	0.498	0.479	0.531	0.503
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.573	0.625	0.658	0.591	0.598	0.564	0.562	0.633	0.643	0.740	0.686
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.657	0.643	0.643	0.570	0.543	0.685	0.696	0.756	0.768
48 Stephen Street, Chicago Sanitary and Ship Canal	0.545	0.642	0.708	0.582	0.587	0.519	0.519	0.636	0.648	0.701	0.683
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.550	0.590	0.657	0.566	0.584	0.532	0.562	0.634	0.663	0.719	0.634
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.150	0.143	0.102	0.000	0.073	0.170	0.156	0.128	0.115
50 Burnham Avenue, Wolf Lake	ND	ND	0.557	0.365	0.362	0.354	0.338	0.334	0.247	0.275	0.228
55 130th Street, Calumet River	ND	ND	0.257	0.239	0.212	0.184	0.240	0.264	0.253	0.219	0.220
86 Burnham Avenue, Grand Calumet River	0.590	0.656	0.591	0.594	0.596	0.768	0.814	0.696	0.809	0.722	0.740
56 Indiana Avenue, Little Calumet River	0.320	0.288	0.340	0.314	0.272	0.235	0.394	0.348	0.324	0.317	0.278
76 Halsted Street, Little Calumet River	0.542	0.591	0.609	0.539	0.530	0.521	0.610	0.534	0.602	0.582	0.536
52 Wentworth Avenue, Little Calumet River	ND	ND	1.114	1.157	0.487	0.858	2.284	2.539	2.962	3.129	1.764
54 Joe Orr Road, Thorn Creek	ND	ND	0.643	0.467	0.482	0.564	0.658	0.549	0.659	0.474	0.626
97 170th Street, Thorn Creek	ND	ND	0.500	0.397	0.370	0.471	0.553	0.470	0.539	0.492	0.543
57 Ashland Avenue, Little Calumet River	0.509	0.700	0.555	0.572	0.422	0.766	0.924	0.803	1.115	1.182	0.887
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.543	0.524	0.492	0.514	0.593	0.514	0.630	0.646	0.563
59 Cicero Avenue, Calumet-Sag Channel	0.482	0.591	0.580	0.541	0.483	0.499	0.575	0.507	0.639	0.637	0.575
43 Route 83, Calumet-Sag Channel	0.455	0.536	0.564	0.484	0.509	0.457	0.534	0.511	0.562	0.662	0.590
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.200	0.179	0.144	0.155	0.150	0.231	0.208	0.209	0.198
110 Springinsguth Road, West Branch DuPage River	0.325	0.225	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.614	0.587	0.643	0.610	0.550	0.643	0.629	0.643	0.568
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.377	0.483	0.530	0.569	0.529	0.603	0.572
111 Arlington Drive, West Branch DuPage River	0.564	0.550	0.642	0.530	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.211	0.188	0.245	0.277	0.179	0.155	0.197	0.259	0.213	0.207	0.189
80 Arlington Heights Road, Salt Creek	ND	ND	0.557	0.413	0.527	0.458	0.517	0.563	0.523	0.553	0.546
18 Devon Avenue, Salt Creek	0.518	0.508	0.675	0.481	0.566	0.445	0.503	0.564	0.534	0.498	0.549
24 Wolf Road, Salt Creek	ND	ND	0.457	0.419	0.433	0.408	0.509	0.498	0.480	0.585	0.565
109 Brookfield Avenue, Salt Creek	0.422	0.391	0.525	0.397	0.424	0.395	0.522	0.474	0.459	0.467	0.511
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.200	0.175	0.263	0.204	0.130	0.085	0.244	0.296	0.220	0.190	0.223
78 Wille Road, Higgins Creek	0.692	0.692	0.764	0.654	0.661	0.627	0.715	0.897	0.959	0.879	0.812
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.217	0.184	0.120	0.044	0.099	0.234	0.191	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.371	0.331	0.365	0.325	0.401	0.424	0.425	0.438	0.400
17 Oakton Street, Des Plaines River	ND	ND	0.357	0.315	0.363	0.292	0.378	0.374	0.369	0.468	0.382
19 Belmont Avenue, Des Plaines River	0.350	0.417	0.550	0.354	0.420	0.355	0.424	0.442	0.468	0.468	0.435
20 Roosevelt Road, Des Plaines River	ND	ND	0.386	0.343	0.415	0.335	0.416	0.453	0.452	0.449	0.417
22 Ogden Avenue, Des Plaines River	0.367	0.392	0.508	0.352	0.403	0.345	0.443	0.437	0.447	0.440	0.429
23 Willow Springs Road, Des Plaines River	0.367	0.364	0.492	0.350	0.396	0.332	0.417	0.440	0.440	0.530	0.431
29 Stephen Street, Des Plaines River	ND	ND	0.357	0.338	0.383	0.328	0.390	0.470	0.453	0.510	0.427
91 Material Service Road, Des Plaines River	0.360	0.358	0.492	0.326	0.373	0.313	0.408	0.421	0.443	0.540	0.419

ND = No Data.

TABLE AII-25: TOTAL ORGANIC CARBON MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	4.60	5.24	4.89	4.75	3.97	3.90	4.58	6.43	8.88
103 Golf Road, West Fork North Branch Chicago River	ND	ND	4.29	4.79	4.70	4.53	3.53	4.05	4.08	6.88	8.40
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	5.75	6.64	6.79	6.01	5.13	6.75	6.17	9.02	10.10
104 Glenview Road, North Branch Chicago River	ND	ND	4.43	7.39	4.66	4.65	4.08	4.40	4.63	5.98	8.33
32 Lake-Cook Road, Skokie River	ND	ND	4.70	7.34	5.60	5.09	4.36	4.96	5.43	7.62	9.30
105 Frontage Road, Skokie River	ND	ND	4.29	4.69	4.58	4.37	3.73	4.29	4.43	5.64	7.17
34 Dempster Street, North Branch Chicago River	ND	ND	4.14	5.32	4.33	4.63	3.96	4.25	4.50	6.97	9.67
96 Albany Avenue, North Branch Chicago River	4.55	4.50	4.58	5.60	5.35	4.51	3.72	4.32	4.51	6.70	8.18
35 Central Street, North Shore Channel	ND	ND	3.00	3.24	3.65	2.71	1.67	1.78	1.92	2.49	4.22
112 Dempster Street, North Shore Channel	3.22	2.90	5.00	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	4.29	4.27	4.09	3.26	2.36	2.92	3.38	4.42	5.92
36 Touhy Avenue, North Shore Channel	4.75	4.55	4.63	5.18	4.95	4.16	3.39	4.03	4.12	6.41	8.08
101 Foster Avenue, North Shore Channel	ND	ND	4.57	5.21	6.04	3.98	3.37	4.07	4.26	6.48	8.25
37 Wilson Avenue, North Branch Chicago River	ND	ND	4.67	4.27	4.48	4.02	3.40	3.88	4.32	6.68	8.08
73 Diversey Parkway, North Branch Chicago River	4.67	4.83	4.92	4.57	4.68	3.89	3.32	4.10	4.08	6.26	7.83
46 Grand Avenue, North Branch Chicago River	ND	ND	4.86	4.95	4.53	4.13	3.43	4.01	4.25	6.49	7.92
74 Lake Shore Drive, Chicago River	ND	ND	2.67	2.78	2.55	2.23	1.77	1.87	1.75	2.54	4.22
100 Wells Street, Chicago River	2.73	3.83	3.55	4.01	2.93	2.53	2.39	2.25	2.27	3.55	5.17
39 Madison Street, South Branch Chicago River	ND	ND	4.17	4.97	4.04	3.60	3.09	3.03	3.29	5.03	7.00
108 Loomis Street, South Branch Chicago River	3.75	3.92	4.25	4.21	4.02	3.43	2.96	3.17	3.35	5.52	6.83
99 Archer Avenue, South Fork South Branch Chicago River	5.27	4.70	5.83	4.88	4.44	3.76	3.81	3.34	3.27	5.44	7.08
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	4.57	4.08	3.84	3.68	2.93	3.15	3.37	5.52	6.67
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	4.00	4.17	4.00	4.28	3.93	3.51	3.13	3.24	3.75	5.08	7.00
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.36	4.58	4.58	5.09	4.63	4.32	3.56	3.80	4.16	5.92	7.50
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	5.01	5.22	4.91	4.27	3.56	4.19	4.39	6.05	8.17
48 Stephen Street, Chicago Sanitary and Ship Canal	4.55	4.92	4.83	5.06	4.93	4.37	3.68	4.20	4.54	6.32	7.75
92 Lockport Forebay, Chicago Sanitary and Ship Canal	4.45	4.63	4.88	5.17	4.83	4.44	3.60	4.34	4.40	6.01	8.00
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	2.17	2.28	4.50	1.74	1.29	1.48	1.43	1.77	3.40
50 Burnham Avenue, Wolf Lake	ND	ND	6.14	5.31	6.28	4.35	3.83	4.00	3.81	5.37	6.42
55 130th Street, Calumet River	ND	ND	3.14	2.91	2.84	3.00	2.31	2.75	2.62	3.39	4.55
86 Burnham Avenue, Grand Calumet River	8.00	9.67	10.64	8.58	10.66	6.76	8.99	17.54	7.45	9.27	12.33
56 Indiana Avenue, Little Calumet River	3.40	3.13	3.50	3.84	3.64	3.70	3.08	3.47	3.39	3.77	5.11
76 Halsted Street, Little Calumet River	4.58	5.01	5.18	4.95	4.96	4.44	4.07	4.19	4.40	5.90	7.61
52 Wentworth Avenue, Little Calumet River	ND	ND	6.43	6.87	7.69	6.61	5.54	6.22	9.02	8.54	12.22
54 Joe Orr Road, Thorn Creek	ND	ND	5.43	6.24	5.96	6.41	5.09	5.04	5.33	8.00	10.43
97 170th Street, Thorn Creek	ND	ND	5.00	5.57	6.19	5.59	4.53	5.22	6.26	6.72	9.27
57 Ashland Avenue, Little Calumet River	6.09	5.10	5.18	5.98	5.60	5.99	4.89	6.68	5.67	7.46	9.60
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	5.29	4.99	5.53	4.70	4.19	4.60	4.65	6.04	8.00
59 Cicero Avenue, Calumet-Sag Channel	4.91	5.00	5.20	5.06	5.55	4.71	4.21	4.55	4.77	6.41	8.17
43 Route 83, Calumet-Sag Channel	4.82	5.00	4.73	4.85	4.92	4.70	4.03	4.64	4.77	6.54	8.00
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	5.36	5.82	5.67	5.14	4.43	5.13	5.75	7.28	8.64
110 Springinsguth Road, West Branch DuPage River	11.00	11.25	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	6.43	7.10	6.54	6.53	6.23	6.73	6.83	9.55	12.45
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	5.80	6.18	5.26	6.05	6.23	8.65	10.09
111 Arlington Drive, West Branch DuPage River	6.09	6.33	6.43	6.19	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	5.78	5.75	6.18	6.41	6.64	6.03	4.72	5.27	5.60	8.42	9.45
80 Arlington Heights Road, Salt Creek	ND	ND	5.09	5.80	5.58	5.47	3.74	4.45	5.00	7.13	9.42
18 Devon Avenue, Salt Creek	5.36	5.42	5.43	5.47	5.59	5.33	3.67	4.49	4.90	6.86	9.58
24 Wolf Road, Salt Creek	ND	ND	4.86	5.02	4.95	4.77	3.58	4.07	4.68	6.73	8.27
109 Brookfield Avenue, Salt Creek	5.11	7.82	4.92	5.07	4.87	4.83	3.72	4.29	4.65	7.30	10.82
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	4.50	5.25	4.75	4.88	3.80	5.28	3.62	4.66	5.13	7.75	11.00
78 Wille Road, Higgins Creek	4.67	5.33	5.00	4.73	5.02	5.12	4.83	5.03	5.59	7.94	10.55
12 Lake-Cook Road, Buffalo Creek	ND	ND	5.33	6.21	5.97	6.41	5.79	6.10	5.94	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	5.57	6.13	5.98	6.04	4.81	7.90	7.21	7.48	9.27
17 Oakton Street, Des Plaines River	ND	ND	5.29	6.10	5.94	6.06	4.75	5.98	5.40	7.38	8.73
19 Belmont Avenue, Des Plaines River	5.80	5.75	5.17	5.80	5.48	5.77	4.57	5.75	5.56	7.53	9.27
20 Roosevelt Road, Des Plaines River	ND	ND	5.00	5.80	5.68	5.85	4.82	5.74	5.52	7.28	9.36
22 Ogden Avenue, Des Plaines River	5.78	5.33	5.33	5.63	5.28	5.58	4.41	5.36	5.14	7.00	9.27
23 Willow Springs Road, Des Plaines River	5.67	5.36	5.25	5.59	5.23	5.55	4.29	6.02	5.20	7.11	8.82
29 Stephen Street, Des Plaines River	ND	ND	5.71	5.40	5.45	5.51	3.98	5.20	5.12	7.08	8.45
91 Material Service Road, Des Plaines River	5.30	5.25	5.08	5.28	5.19	5.41	3.99	5.45	5.09	7.19	8.45

ND = No Data.

TABLE AII-26: FECAL COLIFORM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (fcu/100mL)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	6260	4663	2364	1818	1453	2476	3196	1130	2494
103 Golf Road, West Fork North Branch Chicago River	ND	ND	546	797	466	1083	1133	660	893	727	622
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	511	488	646	586	1836	633	943	536	760
104 Glenview Road, North Branch Chicago River	ND	ND	301	723	188	372	563	827	855	649	1326
32 Lake-Cook Road, Skokie River	ND	ND	2400	2687	775	655	596	736	657	649	1042
105 Frontage Road, Skokie River	ND	ND	96	72	112	169	151	199	119	160	159
34 Dempster Street, North Branch Chicago River	ND	ND	441	987	1472	695	1069	600	1026	1121	996
96 Albany Avenue, North Branch Chicago River	1040	966	380	375	507	420	653	520	860	1119	1029
35 Central Street, North Shore Channel	ND	ND	35	124	54	80	168	66	90	144	330
112 Dempster Street, North Shore Channel	322	373	939	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	1663	915	615	343	1627	638	1181	866	963
36 Touhy Avenue, North Shore Channel	14264	11161	5642	7494	5393	8040	6892	8875	8550	11481	5518
101 Foster Avenue, North Shore Channel	ND	ND	6443	5857	5484	5021	7878	9612	7628	10290	6872
37 Wilson Avenue, North Branch Chicago River	ND	ND	5257	5823	4091	5461	5723	7479	6033	9748	5896
73 Diversey Parkway, North Branch Chicago River	7132	4117	3446	2991	3538	3818	4373	3608	4237	5799	3426
46 Grand Avenue, North Branch Chicago River	ND	ND	939	1618	971	1706	3414	1226	2054	1853	1583
74 Lake Shore Drive, Chicago River	ND	ND	81	44	28	241	90	86	31	81	46
100 Wells Street, Chicago River	587	675	320	792	182	189	947	183	190	150	65
39 Madison Street, South Branch Chicago River	ND	ND	1351	2467	415	904	2921	922	892	921	680
108 Loomis Street, South Branch Chicago River	364	333	369	589	257	334	1427	371	445	297	179
99 Archer Avenue, South Fork South Branch Chicago River	710	624	620	429	230	384	1625	294	493	156	202
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	484	378	258	283	940	349	523	223	164
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	183	344	174	314	137	202	649	347	469	129	104
41 Harlem Avenue, Chicago Sanitary and Ship Canal	2243	2153	3721	3218	1391	3321	4642	4908	3906	2668	2637
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	1217	1163	537	573	1238	1289	1303	1011	935
48 Stephen Street, Chicago Sanitary and Ship Canal	370	640	668	977	199	448	992	645	894	469	386
92 Lockport Forebay, Chicago Sanitary and Ship Canal	278	122	112	239	101	216	255	227	308	205	186
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	21	10	15	11	13	12	11	12	11
50 Burnham Avenue, Wolf Lake	ND	ND	16	43	21	26	36	70	21	77	53
55 130th Street, Calumet River	28	ND	11	32	35	9	25	19	24	37	26
86 Burnham Avenue, Grand Calumet River	2217	1332	533	3416	4613	1158	642	2448	420	2377	1104
56 Indiana Avenue, Little Calumet River	67	67	109	120	74	74	111	49	89	73	103
76 Halsted Street, Little Calumet River	2083	1402	985	1441	1926	2262	2891	3259	2159	2759	2775
52 Wentworth Avenue, Little Calumet River	6359	ND	811	5240	2585	2935	1811	1477	956	1934	1284
54 Joe Orr Road, Thorn Creek	ND	ND	1587	3859	1131	2335	1407	2411	3309	14257	1588
97 170th Street, Thorn Creek	2071	ND	1250	2497	1086	756	780	698	642	2119	1292
57 Ashland Avenue, Little Calumet River	913	582	511	1905	1346	563	783	816	431	3181	4103
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	752	1975	1280	1407	2174	2122	1580	2365	2616
59 Cicero Avenue, Calumet-Sag Channel	1566	2389	1978	1650	1060	377	945	1178	539	857	1041
43 Route 83, Calumet-Sag Channel	383	56	269	272	127	106	108	188	97	57	147
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	63	148	87	138	163	181	264	417	92
110 Springinguth Road, West Branch DuPage River	6145	12357	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	1195	972	549	451	1103	2013	857	2026	1121
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	814	538	684	2406	949	2144	967
111 Arlington Drive, West Branch DuPage River	1596	918	725	463	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	119	95	46	85	154	97	47	250	153	499	84
80 Arlington Heights Road, Salt Creek	ND	ND	466	222	273	184	377	312	417	389	529
18 Devon Avenue, Salt Creek	531	622	383	358	472	328	734	930	946	1014	1214
24 Wolf Road, Salt Creek	ND	ND	338	229	358	398	298	688	1303	1034	337
109 Brookfield Avenue, Salt Creek	538	980	567	499	560	615	663	1425	1618	1480	1499
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	761	957	361	474	210	1296	857	2370	1915	1932	488
78 Wille Road, Higgins Creek	151	438	283	173	142	475	266	514	275	382	162
12 Lake-Cook Road, Buffalo Creek	117	213	86	77	140	99	248	823	236	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	229	212	245	193	247	310	362	650	240
17 Oakton Street, Des Plaines River	ND	ND	343	298	224	208	452	313	616	639	342
19 Belmont Avenue, Des Plaines River	348	588	335	378	423	301	365	516	525	523	410
20 Roosevelt Road, Des Plaines River	ND	ND	401	353	296	511	523	634	897	950	662
22 Ogden Avenue, Des Plaines River	429	394	501	325	363	356	503	767	1509	1247	792
23 Willow Springs Road, Des Plaines River	127	184	203	261	280	217	187	302	1092	480	303
29 Stephen Street, Des Plaines River	ND	ND	226	157	162	129	129	184	617	248	202
91 Material Service Road, Des Plaines River	70	109	66	112	63	83	78	192	327	260	135

ND = No Data.

TABLE AII-27: ESCHERICHIA COLI MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (fcu/100mL)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	1133	1195	2068	1008	1800	2068	ND	2140
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	665	411	968	507	347	374	943	451
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	348	348	466	1005	921	799	243	956
104 Glenview Road, North Branch Chicago River	ND	ND	ND	6813	174	240	353	266	291	443	432
32 Lake-Cook Road, Skokie River	ND	ND	ND	4555	697	344	312	527	147	515	579
105 Frontage Road, Skokie River	ND	ND	ND	126	129	247	121	118	71	276	142
34 Dempster Street, North Branch Chicago River	ND	ND	ND	2970	2277	343	446	386	840	734	604
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	549	1244	148	559	400	470	791	337
35 Central Street, North Shore Channel	ND	ND	ND	47	81	53	231	44	222	78	267
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	1595	3345	362	2052	562	782	974	835
36 Touhy Avenue, North Shore Channel	ND	ND	ND	8437	5491	6119	6748	8540	5772	10341	3302
101 Foster Avenue, North Shore Channel	ND	ND	ND	8728	4095	4701	7533	12046	6040	10236	5652
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	9398	3511	5609	5922	9093	5411	9844	6376
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	6808	2336	4607	3816	3900	3231	7280	2569
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	2378	573	1599	3263	1197	1245	2667	1272
74 Lake Shore Drive, Chicago River	ND	ND	ND	25	17	38	55	81	16	24	49
100 Wells Street, Chicago River	ND	ND	ND	573	33	93	411	169	184	119	49
39 Madison Street, South Branch Chicago River	ND	ND	ND	1124	180	973	1683	584	1253	461	463
108 Loomis Street, South Branch Chicago River	ND	ND	ND	199	68	201	621	336	599	61	72
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	108	201	164	907	115	448	102	78
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	1113	230	260	632	ND	ND	156	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	617	58	161	488	932	403	78	177
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	5172	1106	1669	2877	5416	3330	2267	2567
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	3446	667	399	1007	867	1365	1340	553
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	4432	202	379	724	645	1049	796	407
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	357	81	175	457	251	316	148	128
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	10	23	10	10	10	10	12	10
50 Burnham Avenue, Wolf Lake	ND	ND	ND	98	26	23	29	89	19	183	37
55 130th Street, Calumet River	ND	ND	ND	20	43	14	23	12	16	57	15
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	10775	204450	1302	2342	682	262	11506	6199
56 Indiana Avenue, Little Calumet River	ND	ND	ND	1549	126	257	77	29	181	63	48
76 Halsted Street, Little Calumet River	ND	ND	ND	785	3724	2486	2012	1929	2372	2838	2420
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	2504	2785	1724	1090	2677	829	2278	3794
54 Joe Orr Road, Thorn Creek	ND	ND	ND	1650	1368	1428	699	2611	2124	16399	1508
97 170th Street, Thorn Creek	ND	ND	ND	1754	435	815	697	1138	364	2442	1631
57 Ashland Avenue, Little Calumet River	ND	ND	ND	1322	552	285	1027	1530	288	5565	5967
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	512	436	943	1738	3512	1259	2253	2454
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	1065	360	193	471	1793	396	797	1139
43 Route 83, Calumet-Sag Channel	ND	ND	ND	150	26	46	86	822	24	60	218
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	195	144	118	149	148	514	775	42
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	1793	588	399	1836	720	675	2202	727
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	1509	399	1472	1714	1451	2216	908
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	1270	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	14	209	63	109	114	22	158	89
80 Arlington Heights Road, Salt Creek	ND	ND	ND	19	280	76	443	221	427	487	370
18 Devon Avenue, Salt Creek	ND	ND	ND	9	552	134	1239	483	530	1202	1164
24 Wolf Road, Salt Creek	ND	ND	ND	85	218	232	278	286	711	1077	165
109 Brookfield Avenue, Salt Creek	ND	ND	ND	420	442	367	450	492	723	1289	2994
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	550	200	660	220	1897	1217	890	268
78 Wille Road, Higgins Creek	ND	ND	ND	295	179	315	186	221	207	1077	127
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	147	280	117	109	287	216	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	136	333	320	218	274	398	684	77
17 Oakton Street, Des Plaines River	ND	ND	ND	243	185	352	503	232	555	295	161
19 Belmont Avenue, Des Plaines River	ND	ND	ND	264	477	399	323	271	839	439	458
20 Roosevelt Road, Des Plaines River	ND	ND	ND	285	335	953	391	457	1165	480	524
22 Ogden Avenue, Des Plaines River	ND	ND	ND	370	364	579	681	667	1618	606	724
23 Willow Springs Road, Des Plaines River	ND	ND	ND	319	154	295	110	268	855	169	202
29 Stephen Street, Des Plaines River	ND	ND	ND	206	179	197	118	165	431	186	122
91 Material Service Road, Des Plaines River	ND	ND	ND	62	59	103	69	263	381	114	248

ND = No Data.

TABLE AII-28: TOTAL CALCIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	81.4	79.4	72.1	68.2	71.1	73.6	62.0	70.3	85.3
103 Golf Road, West Fork North Branch Chicago River	ND	ND	84.9	79.1	75.7	66.4	68.2	75.5	73.9	80.8	71.5
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	72.0	62.3	61.3	57.6	62.1	64.2	62.9	65.6	64.3
104 Glenview Road, North Branch Chicago River	ND	ND	71.6	62.1	64.3	61.5	65.1	62.8	62.3	61.5	64.4
32 Lake-Cook Road, Skokie River	ND	ND	77.7	69.4	67.5	62.7	66.3	75.8	68.5	70.5	74.2
105 Frontage Road, Skokie River	ND	ND	72.4	62.5	63.5	62.2	64.3	62.8	62.1	62.0	63.2
34 Dempster Street, North Branch Chicago River	ND	ND	80.3	66.2	69.8	61.2	63.0	64.2	65.9	70.6	68.7
96 Albany Avenue, North Branch Chicago River	68.0	58.6	64.8	69.2	65.4	65.4	67.6	65.5	67.9	69.4	65.1
35 Central Street, North Shore Channel	ND	ND	51.6	41.0	38.2	37.1	39.6	39.4	37.5	39.1	38.8
112 Dempster Street, North Shore Channel	43.0	45.0	48.0	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	55.4	50.9	48.9	47.2	47.6	49.3	47.7	47.8	45.8
36 Touhy Avenue, North Shore Channel	55.1	50.5	52.5	57.9	52.3	60.2	60.0	56.0	53.3	51.9	57.1
101 Foster Avenue, North Shore Channel	ND	ND	57.9	57.2	55.0	58.0	60.3	58.0	54.2	52.9	57.7
37 Wilson Avenue, North Branch Chicago River	ND	ND	59.2	58.9	59.9	57.9	61.0	59.1	56.4	55.7	59.8
73 Diversey Parkway, North Branch Chicago River	59.6	52.0	53.7	60.2	58.5	58.4	61.7	57.3	56.2	54.7	60.8
46 Grand Avenue, North Branch Chicago River	ND	ND	62.3	60.1	57.0	56.4	60.8	57.9	56.9	57.3	62.1
74 Lake Shore Drive, Chicago River	ND	ND	48.3	46.0	38.2	36.8	37.3	42.0	38.4	40.6	44.2
100 Wells Street, Chicago River	46.5	50.1	50.1	52.2	43.5	43.8	47.4	44.8	44.1	44.1	46.0
39 Madison Street, South Branch Chicago River	ND	ND	58.8	61.1	51.3	53.5	53.6	51.8	51.3	52.0	52.8
108 Loomis Street, South Branch Chicago River	54.8	53.3	53.1	56.2	52.7	55.1	53.9	52.7	53.6	54.3	52.0
99 Archer Avenue, South Fork South Branch Chicago River	54.3	51.2	49.3	56.6	54.9	52.1	56.8	50.3	51.2	51.9	53.3
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	58.4	56.6	53.4	53.5	53.9	52.3	53.8	52.9	53.1
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	56.5	52.7	52.1	57.4	53.8	52.9	56.8	53.3	51.2	54.5	55.1
41 Harlem Avenue, Chicago Sanitary and Ship Canal	59.0	54.2	54.0	59.1	59.2	56.9	58.5	56.2	54.8	54.2	54.6
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	61.1	61.4	58.5	57.0	57.5	56.0	56.3	56.4	56.5
48 Stephen Street, Chicago Sanitary and Ship Canal	59.9	57.7	59.7	62.8	60.5	56.4	60.1	58.3	59.0	60.1	59.8
92 Lockport Forebay, Chicago Sanitary and Ship Canal	60.7	56.5	58.6	61.2	60.7	57.8	60.8	59.1	58.4	59.5	59.9
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	36.5	37.9	35.2	35.9	34.9	37.3	35.9	36.5	37.1
50 Burnham Avenue, Wolf Lake	ND	ND	38.6	36.7	35.5	36.1	35.8	36.2	30.9	37.3	36.6
55 130th Street, Calumet River	ND	ND	46.4	43.9	41.8	43.3	42.6	46.3	42.6	43.4	43.2
86 Burnham Avenue, Grand Calumet River	84.2	94.6	81.4	81.2	85.3	82.4	96.3	92.0	98.0	68.3	82.5
56 Indiana Avenue, Little Calumet River	50.8	44.5	48.2	51.9	47.6	50.2	50.8	55.0	49.6	47.8	49.2
76 Halsted Street, Little Calumet River	66.3	61.6	61.9	66.5	60.8	62.5	68.1	66.3	65.8	63.1	62.1
52 Wentworth Avenue, Little Calumet River	ND	ND	88.4	68.0	72.2	75.1	89.9	79.9	88.1	74.4	86.4
54 Joe Orr Road, Thorn Creek	ND	ND	87.9	70.7	79.2	75.7	83.8	78.7	85.4	76.0	80.8
97 170th Street, Thorn Creek	ND	ND	95.3	74.0	73.9	75.8	87.0	71.6	87.7	83.0	84.0
57 Ashland Avenue, Little Calumet River	73.2	71.1	73.5	69.7	69.4	70.9	82.3	69.8	86.4	75.4	78.9
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	69.6	66.7	65.3	61.8	68.4	61.8	68.3	65.3	65.4
59 Cicero Avenue, Calumet-Sag Channel	63.5	63.0	63.1	67.7	63.9	61.8	67.9	61.8	71.3	65.4	66.4
43 Route 83, Calumet-Sag Channel	63.5	63.1	60.5	63.3	66.9	61.0	66.5	61.8	69.4	64.7	63.1
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	77.3	70.3	75.9	67.3	73.1	68.5	70.9	65.6	76.3
110 Springinguth Road, West Branch DuPage River	83.8	69.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	69.0	71.0	65.3	66.1	63.6	61.6	65.8	58.5	64.5
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	79.2	65.0	67.3	58.8	63.7	59.7	70.4
111 Arlington Drive, West Branch DuPage River	69.0	61.7	62.4	68.7	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	67.0	55.6	61.1	70.0	50.6	62.2	70.2	63.5	63.3	65.9	75.8
80 Arlington Heights Road, Salt Creek	ND	ND	75.0	61.9	65.8	61.5	69.9	62.7	64.5	66.4	64.1
18 Devon Avenue, Salt Creek	65.6	58.3	64.2	64.2	68.3	60.7	69.4	63.0	65.4	66.4	64.4
24 Wolf Road, Salt Creek	ND	ND	75.0	68.4	70.8	68.5	70.9	65.1	64.0	66.1	69.7
109 Brookfield Avenue, Salt Creek	70.0	62.4	65.2	68.9	67.8	66.0	68.2	62.6	63.1	64.2	69.9
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	68.5	56.3	64.4	53.4	63.6	51.0	62.4	44.5	54.3	60.1	73.7
78 Wille Road, Higgins Creek	68.1	68.4	69.0	83.8	75.2	79.1	76.6	71.0	69.4	69.2	70.9
12 Lake-Cook Road, Buffalo Creek	65.3	59.5	83.0	71.5	76.8	69.5	78.3	69.2	75.3	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	72.9	65.5	67.8	62.1	72.5	67.9	73.3	66.8	71.1
17 Oakton Street, Des Plaines River	ND	ND	73.0	66.4	66.3	61.2	70.7	64.2	69.1	66.6	72.2
19 Belmont Avenue, Des Plaines River	70.3	63.4	64.5	67.6	65.1	63.3	72.5	64.2	69.2	67.1	72.7
20 Roosevelt Road, Des Plaines River	ND	ND	71.0	67.4	65.1	61.6	72.4	63.9	68.6	65.8	71.0
22 Ogden Avenue, Des Plaines River	68.3	63.1	66.2	66.4	65.3	61.5	68.4	62.6	65.2	63.7	69.9
23 Willow Springs Road, Des Plaines River	69.2	61.5	66.7	67.3	63.3	61.8	69.7	62.7	64.5	66.1	69.7
29 Stephen Street, Des Plaines River	ND	ND	72.6	65.9	67.1	61.8	71.1	65.1	69.8	67.4	70.0
91 Material Service Road, Des Plaines River	69.5	61.1	67.3	66.2	67.8	63.6	69.8	66.3	71.0	68.3	71.1

ND = No Data.

TABLE AII-29: TOTAL MAGNESIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	33.8	32.6	28.5	28.2	29.7	28.1	25.7	29.0	35.4
103 Golf Road, West Fork North Branch Chicago River	ND	ND	35.0	31.0	29.1	26.4	26.3	29.7	29.7	32.2	27.6
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	33.8	26.3	26.4	25.7	28.7	28.9	33.1	29.2	
104 Glenview Road, North Branch Chicago River	ND	ND	32.6	25.7	27.0	25.8	27.0	26.9	27.1	27.7	27.3
32 Lake-Cook Road, Skokie River	ND	ND	33.8	28.6	28.1	25.4	26.9	31.3	30.3	32.4	31.6
105 Frontage Road, Skokie River	ND	ND	33.3	26.2	27.0	26.1	26.5	26.3	26.5	27.2	26.9
34 Dempster Street, North Branch Chicago River	ND	ND	35.0	27.6	28.3	25.1	25.9	27.2	27.9	30.7	28.4
96 Albany Avenue, North Branch Chicago River	28.1	24.1	27.9	28.6	26.3	26.3	27.0	27.6	28.3	29.7	26.8
35 Central Street, North Shore Channel	ND	ND	19.2	14.1	12.8	12.5	13.3	13.3	12.5	13.3	13.1
112 Dempster Street, North Shore Channel	14.9	15.9	18.6	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	20.1	17.7	16.9	16.4	16.2	16.9	16.7	16.9	15.8
36 Touhy Avenue, North Shore Channel	19.8	18.3	18.8	20.2	18.0	21.0	21.2	19.5	19.0	18.2	20.3
101 Foster Avenue, North Shore Channel	ND	ND	20.9	20.1	19.1	20.1	21.4	20.2	19.4	18.6	20.8
37 Wilson Avenue, North Branch Chicago River	ND	ND	21.8	21.4	22.0	20.8	22.4	21.3	20.9	20.1	22.2
73 Diversey Parkway, North Branch Chicago River	22.0	19.1	19.9	22.0	21.1	20.8	22.5	20.7	20.7	19.5	22.4
46 Grand Avenue, North Branch Chicago River	ND	ND	23.4	22.0	20.3	20.0	21.8	20.9	21.0	20.8	22.3
74 Lake Shore Drive, Chicago River	ND	ND	17.5	15.7	12.7	12.4	12.6	14.5	12.9	14.2	15.5
100 Wells Street, Chicago River	16.9	18.6	18.2	18.6	15.0	15.1	16.5	15.9	15.3	15.3	16.3
39 Madison Street, South Branch Chicago River	ND	ND	22.2	22.1	18.2	19.1	19.1	18.4	18.6	18.6	19.0
108 Loomis Street, South Branch Chicago River	20.3	19.9	19.3	20.3	18.7	19.8	19.4	18.7	19.6	19.8	19.0
99 Archer Avenue, South Fork South Branch Chicago River	19.2	18.5	17.1	20.2	19.4	18.1	20.1	17.7	18.4	18.5	19.2
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	21.7	20.4	19.0	19.5	19.4	18.6	19.6	19.2	19.3
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	20.9	19.6	18.9	20.9	19.4	18.7	20.7	18.9	18.3	19.7	19.9
41 Harlem Avenue, Chicago Sanitary and Ship Canal	21.4	19.7	19.1	20.8	20.9	20.0	21.0	19.8	19.9	19.6	19.9
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	21.4	21.3	20.1	20.1	20.5	20.2	20.4	20.5	20.6
48 Stephen Street, Chicago Sanitary and Ship Canal	22.0	21.3	21.6	22.3	21.1	19.9	21.4	21.2	21.5	22.2	21.9
92 Lockport Forebay, Chicago Sanitary and Ship Canal	22.0	20.7	21.2	21.6	21.2	20.6	21.6	21.3	21.3	21.8	22.0
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	12.3	12.5	11.8	11.7	11.2	12.1	11.5	12.1	12.3
50 Burnham Avenue, Wolf Lake	ND	ND	11.1	12.6	12.4	11.8	11.9	12.1	11.9	13.7	13.4
55 130th Street, Calumet River	ND	ND	15.9	14.8	14.2	14.4	14.0	15.8	14.2	15.0	14.8
86 Burnham Avenue, Grand Calumet River	35.6	42.7	26.4	28.5	28.2	36.9	39.0	39.3	48.7	44.4	53.9
56 Indiana Avenue, Little Calumet River	19.9	15.9	17.3	18.0	16.2	17.2	17.3	19.8	17.6	17.8	18.5
76 Halsted Street, Little Calumet River	23.8	21.9	21.5	22.7	20.6	21.5	23.2	22.8	22.6	22.3	22.0
52 Wentworth Avenue, Little Calumet River	ND	ND	36.1	26.5	28.6	28.4	34.3	31.4	33.9	29.7	34.3
54 Joe Orr Road, Thorn Creek	ND	ND	32.9	26.5	28.3	28.2	30.4	30.1	36.3	33.8	33.9
97 170th Street, Thorn Creek	ND	ND	40.8	31.2	29.7	29.9	33.9	28.4	37.7	36.6	36.7
57 Ashland Avenue, Little Calumet River	30.0	28.4	29.0	27.5	26.5	27.0	31.2	27.0	35.3	31.6	32.5
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	25.0	23.9	23.4	21.6	23.6	21.8	24.2	23.8	23.8
59 Cicero Avenue, Calumet-Sag Channel	23.6	23.2	22.9	24.0	22.4	22.1	23.8	21.8	25.8	23.8	24.7
43 Route 83, Calumet-Sag Channel	23.8	23.7	22.2	22.8	23.7	21.9	23.6	22.4	25.4	23.7	23.6
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	36.9	30.6	32.3	28.7	31.8	30.3	30.6	29.8	34.4
110 Springinsguth Road, West Branch DuPage River	31.5	25.8	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	27.0	27.1	24.2	25.1	24.0	23.0	24.3	22.0	23.9
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	28.3	24.4	25.1	22.3	23.6	22.3	26.2
111 Arlington Drive, West Branch DuPage River	27.1	23.6	23.8	25.8	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	29.4	23.1	27.2	28.3	20.7	26.3	28.5	26.2	26.4	29.5	31.4
80 Arlington Heights Road, Salt Creek	ND	ND	29.3	23.3	24.5	23.3	26.2	24.3	24.9	25.9	24.4
18 Devon Avenue, Salt Creek	25.7	23.0	25.1	23.9	25.6	23.0	26.0	24.5	25.2	25.7	24.5
24 Wolf Road, Salt Creek	ND	ND	31.0	26.9	27.1	26.6	27.6	26.0	25.6	27.3	28.2
109 Brookfield Avenue, Salt Creek	29.7	25.7	26.9	26.9	26.2	25.8	26.7	25.1	25.3	26.7	28.3
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	25.0	22.6	23.1	18.9	20.6	18.2	20.3	14.5	18.5	20.1	26.3
78 Wille Road, Higgins Creek	26.6	25.9	25.9	30.9	27.2	28.9	27.9	25.6	25.1	25.6	26.2
12 Lake-Cook Road, Buffalo Creek	29.3	27.0	37.5	30.4	32.6	29.5	33.4	30.4	33.1	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	33.6	29.2	29.5	27.3	31.3	30.0	32.7	29.6	31.8
17 Oakton Street, Des Plaines River	ND	ND	33.1	29.1	28.2	26.4	30.0	28.5	30.7	29.9	32.5
19 Belmont Avenue, Des Plaines River	31.5	27.4	27.6	28.8	26.8	26.8	30.1	27.7	29.7	29.1	31.1
20 Roosevelt Road, Des Plaines River	ND	ND	31.4	28.7	26.7	26.2	30.1	27.7	29.3	28.7	31.4
22 Ogden Avenue, Des Plaines River	30.6	27.0	28.3	27.7	26.5	25.7	28.1	26.6	27.3	27.5	30.1
23 Willow Springs Road, Des Plaines River	31.1	26.7	28.8	28.2	25.7	26.0	29.0	26.9	27.4	28.8	30.3
29 Stephen Street, Des Plaines River	ND	ND	31.7	27.3	27.3	25.8	29.1	28.2	29.5	29.2	30.2
91 Material Service Road, Des Plaines River	30.5	26.2	29.2	27.5	27.8	26.3	28.9	28.2	30.3	29.9	30.9

ND = No Data.

TABLE AII-30: HARDNESS MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	342	332	297	286	300	300	261	295	359
103 Golf Road, West Fork North Branch Chicago River	ND	ND	356	325	309	274	278	311	307	335	292
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	319	264	262	245	261	278	276	300	281
104 Glenview Road, North Branch Chicago River	ND	ND	313	261	272	260	274	268	267	268	273
32 Lake-Cook Road, Skokie River	ND	ND	333	291	284	261	276	318	296	310	316
105 Frontage Road, Skokie River	ND	ND	318	264	270	263	270	265	264	267	269
34 Dempster Street, North Branch Chicago River	ND	ND	345	279	291	256	264	272	279	303	289
96 Albany Avenue, North Branch Chicago River	285	246	277	291	272	272	280	277	286	296	273
35 Central Street, North Shore Channel	ND	ND	208	161	148	144	154	153	145	153	151
112 Dempster Street, North Shore Channel	169	178	196	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	221	200	192	185	186	193	188	189	179
36 Touhy Avenue, North Shore Channel	219	201	208	228	205	237	237	220	211	205	226
101 Foster Avenue, North Shore Channel	ND	ND	230	226	216	228	239	228	215	209	229
37 Wilson Avenue, North Branch Chicago River	ND	ND	238	235	240	230	244	235	227	222	241
73 Diversey Parkway, North Branch Chicago River	239	209	216	241	233	231	247	228	226	217	244
46 Grand Avenue, North Branch Chicago River	ND	ND	252	241	226	223	242	231	229	229	247
74 Lake Shore Drive, Chicago River	ND	ND	193	179	148	143	145	165	149	160	174
100 Wells Street, Chicago River	186	202	200	207	171	172	187	177	173	173	182
39 Madison Street, South Branch Chicago River	ND	ND	238	243	203	212	212	205	205	207	210
108 Loomis Street, South Branch Chicago River	220	215	212	224	209	219	214	209	214	217	208
99 Archer Avenue, South Fork South Branch Chicago River	215	204	193	224	217	205	225	198	204	206	212
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	235	225	211	214	214	207	215	211	212
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	227	212	208	229	214	209	227	211	203	217	219
41 Harlem Avenue, Chicago Sanitary and Ship Canal	235	217	213	233	234	224	233	222	219	216	218
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	241	241	229	225	228	223	225	225	226
48 Stephen Street, Chicago Sanitary and Ship Canal	240	232	238	249	238	223	238	233	236	241	240
92 Lockport Forebay, Chicago Sanitary and Ship Canal	242	226	233	242	239	229	241	236	234	238	240
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	142	146	136	138	133	143	137	141	143
50 Burnham Avenue, Wolf Lake	ND	ND	142	143	140	139	138	140	126	149	146
55 130th Street, Calumet River	ND	ND	181	171	163	167	164	181	165	170	169
86 Burnham Avenue, Grand Calumet River	357	412	312	320	329	358	401	391	445	354	428
56 Indiana Avenue, Little Calumet River	209	177	192	204	185	196	198	219	196	193	199
76 Halsted Street, Little Calumet River	263	244	243	260	237	245	266	259	258	249	246
52 Wentworth Avenue, Little Calumet River	ND	ND	370	279	298	304	366	329	360	308	357
54 Joe Orr Road, Thorn Creek	ND	ND	355	285	314	305	335	321	363	329	341
97 170th Street, Thorn Creek	ND	ND	406	314	307	312	357	296	374	358	361
57 Ashland Avenue, Little Calumet River	306	295	303	287	283	288	334	285	361	318	331
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	277	265	259	243	268	244	270	261	261
59 Cicero Avenue, Calumet-Sag Channel	256	253	252	268	252	245	268	244	284	261	268
43 Route 83, Calumet-Sag Channel	257	255	243	252	265	243	263	247	278	259	255
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	345	302	323	286	314	296	303	287	332
110 Springinguth Road, West Branch DuPage River	339	278	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	283	289	263	268	258	249	265	237	260
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	314	263	271	239	256	241	283
111 Arlington Drive, West Branch DuPage River	284	251	254	278	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	289	234	264	291	212	264	292	266	267	286	319
80 Arlington Heights Road, Salt Creek	ND	ND	308	251	265	249	282	257	263	273	261
18 Devon Avenue, Salt Creek	270	240	264	259	276	246	280	258	267	272	262
24 Wolf Road, Salt Creek	ND	ND	315	282	289	280	291	269	265	277	290
109 Brookfield Avenue, Salt Creek	297	262	274	283	277	271	280	260	262	270	291
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	274	234	256	211	244	203	239	171	212	233	292
78 Wille Road, Higgins Creek	279	278	279	336	300	317	306	283	277	278	285
12 Lake-Cook Road, Buffalo Creek	284	260	362	304	326	295	333	298	324	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	320	284	291	267	310	293	318	289	308
17 Oakton Street, Des Plaines River	ND	ND	319	286	282	261	300	278	299	289	314
19 Belmont Avenue, Des Plaines River	305	271	275	288	273	268	305	274	295	287	310
20 Roosevelt Road, Des Plaines River	ND	ND	307	287	272	262	305	273	292	283	307
22 Ogden Avenue, Des Plaines River	296	269	282	280	272	259	287	266	275	272	298
23 Willow Springs Road, Des Plaines River	301	263	285	284	264	261	293	268	274	284	299
29 Stephen Street, Des Plaines River	ND	ND	312	277	280	261	297	279	295	288	299
91 Material Service Road, Des Plaines River	299	261	288	278	284	267	293	282	302	293	305

ND = No Data.

TABLE AII-31: GROSS ALPHA RADIOACTIVITY MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (pCi/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	3.48	2.91	2.75	4.53	2.95	11.71	6.01	6.20	6.38
103 Golf Road, West Fork North Branch Chicago River	ND	ND	2.87	2.63	3.38	4.20	2.59	7.08	5.73	7.14	4.36
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.48	2.24	3.42	2.76	2.78	5.25	4.94	5.34	4.74
104 Glenview Road, North Branch Chicago River	ND	ND	2.37	2.11	3.56	3.62	2.35	5.37	5.40	5.50	4.19
32 Lake-Cook Road, Skokie River	ND	ND	2.55	2.20	3.10	2.71	2.65	5.29	5.04	5.50	4.51
105 Frontage Road, Skokie River	ND	ND	2.23	2.30	3.48	3.32	2.28	5.13	4.82	5.03	4.26
34 Dempster Street, North Branch Chicago River	ND	ND	2.53	2.08	3.68	3.61	2.38	6.56	5.01	5.91	4.84
96 Albany Avenue, North Branch Chicago River	2.34	2.14	2.32	2.23	3.67	3.93	2.71	6.03	5.04	5.43	4.01
35 Central Street, North Shore Channel	ND	ND	1.94	1.36	2.05	1.62	1.36	3.85	3.07	3.30	3.00
112 Dempster Street, North Shore Channel	1.41	1.52	1.64	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	1.69	1.72	2.67	2.57	1.60	4.29	3.56	4.07	3.23
36 Touhy Avenue, North Shore Channel	1.89	1.61	1.75	2.13	2.85	3.25	2.03	5.27	3.73	4.27	3.62
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	1.72	1.79	2.37	1.64	1.27	4.29	3.09	3.23	3.43
100 Wells Street, Chicago River	1.49	1.50	1.64	1.95	2.23	2.57	1.73	4.27	3.41	3.61	3.44
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	1.85	1.67	1.74	2.33	3.08	4.73	2.08	5.40	3.84	4.17	3.87
41 Harlem Avenue, Chicago Sanitary and Ship Canal	1.83	1.64	1.89	2.17	3.41	2.96	2.26	6.13	3.88	4.27	3.93
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	1.86	1.85	1.86	1.95	3.43	3.79	2.44	4.89	4.08	4.53	4.00
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	1.35	1.35	1.84	1.94	1.37	4.14	3.66	3.03	2.90
50 Burnham Avenue, Wolf Lake	ND	ND	1.46	1.55	1.95	1.81	1.41	4.16	3.44	3.33	2.94
55 130th Street, Calumet River	ND	ND	1.66	1.57	2.15	2.58	1.72	4.70	3.49	3.50	3.17
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	1.78	1.45	1.63	1.52	2.28	2.82	1.93	5.08	3.65	3.56	3.43
76 Halsted Street, Little Calumet River	1.80	1.85	1.79	1.88	3.07	2.77	2.35	5.28	4.08	4.66	3.68
52 Wentworth Avenue, Little Calumet River	ND	ND	2.13	1.99	2.91	2.84	2.62	5.63	4.24	4.88	3.80
54 Joe Orr Road, Thorn Creek	ND	ND	3.13	2.49	3.91	4.56	3.98	7.27	6.25	8.99	6.72
97 170th Street, Thorn Creek	ND	ND	2.95	2.35	3.98	4.30	3.13	6.27	5.38	7.46	6.43
57 Ashland Avenue, Little Calumet River	2.57	2.47	2.48	2.50	3.64	3.88	2.69	5.46	5.09	6.19	4.35
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	2.40	2.04	3.01	3.04	2.49	5.25	5.66	5.19	4.76
110 Springinguth Road, West Branch DuPage River	2.56	2.41	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	1.94	2.18	2.97	3.29	2.38	4.82	4.98	4.77	4.32
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	4.93	3.05	2.44	4.85	5.10	5.06	4.51
111 Arlington Drive, West Branch DuPage River	2.03	1.89	2.01	2.35	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.38	1.89	2.35	2.77	3.23	3.34	2.90	5.39	5.27	6.27	5.20
80 Arlington Heights Road, Salt Creek	ND	ND	2.27	2.08	3.16	2.84	2.46	5.18	5.59	5.71	4.59
18 Devon Avenue, Salt Creek	2.29	1.85	2.06	2.10	3.37	2.75	2.44	5.17	5.51	5.85	4.59
24 Wolf Road, Salt Creek	ND	ND	2.39	2.30	3.50	3.41	2.66	5.45	5.00	4.81	4.52
109 Brookfield Avenue, Salt Creek	2.06	2.04	2.08	2.48	3.30	4.66	2.77	5.46	5.20	4.76	4.55
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	2.68	2.38	2.44	2.54	2.64	2.37	2.76	5.20	6.74	7.77	5.90
78 Wille Road, Higgins Creek	2.05	1.87	2.26	2.18	2.59	3.50	2.38	5.28	4.78	4.79	4.19
12 Lake-Cook Road, Buffalo Creek	ND	ND	2.45	2.58	3.27	3.11	2.75	5.67	5.13	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	2.03	1.96	3.24	2.88	2.41	5.22	4.86	5.27	4.08
17 Oakton Street, Des Plaines River	ND	ND	2.14	2.17	2.71	2.50	2.49	5.35	4.97	5.30	4.27
19 Belmont Avenue, Des Plaines River	2.06	1.88	2.00	1.95	2.84	3.08	2.64	5.33	5.06	5.46	4.09
20 Roosevelt Road, Des Plaines River	ND	ND	2.11	2.10	4.18	2.30	2.43	5.36	5.29	5.02	4.43
22 Ogden Avenue, Des Plaines River	2.08	2.05	2.08	2.15	3.46	3.23	2.91	5.54	4.95	5.07	4.10
23 Willow Springs Road, Des Plaines River	2.02	2.01	2.11	2.44	3.65	3.10	2.47	5.25	5.06	4.93	4.21
29 Stephen Street, Des Plaines River	ND	ND	2.29	2.49	3.27	3.22	2.85	5.24	5.40	4.93	4.19
91 Material Service Road, Des Plaines River	2.21	2.07	1.98	2.42	3.48	3.43	3.50	5.11	4.84	5.70	4.72

ND = No Data.

**TABLE AII-32: GROSS BETA RADIOACTIVITY MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (pCi/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	5.08	5.64	8.10	7.18	7.85	11.96	11.59	11.58	16.75
103 Golf Road, West Fork North Branch Chicago River	ND	ND	3.73	3.69	7.99	6.97	4.53	9.70	9.95	11.05	11.05
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.30	2.62	5.51	5.56	6.34	6.66	7.40	7.15	7.41
104 Glenview Road, North Branch Chicago River	ND	ND	3.26	3.56	6.34	6.32	4.70	7.18	9.08	11.27	9.48
32 Lake-Cook Road, Skokie River	ND	ND	2.65	2.62	6.18	5.40	4.65	5.94	8.19	8.83	7.13
105 Frontage Road, Skokie River	ND	ND	3.66	4.24	7.12	6.50	4.67	8.18	9.65	10.79	9.60
34 Dempster Street, North Branch Chicago River	ND	ND	3.14	3.52	5.94	5.74	4.61	9.02	9.39	11.51	8.93
96 Albany Avenue, North Branch Chicago River	2.85	3.20	3.12	3.66	7.06	6.02	4.47	8.16	7.91	10.61	9.09
35 Central Street, North Shore Channel	ND	ND	1.74	1.71	4.87	5.08	1.92	4.89	4.50	4.28	4.48
112 Dempster Street, North Shore Channel	1.80	1.90	3.22	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	3.36	3.33	5.19	5.40	3.79	5.91	6.97	6.88	5.78
36 Touhy Avenue, North Shore Channel	3.72	3.23	3.25	4.39	6.36	6.29	4.64	7.70	7.91	7.88	8.29
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	2.18	3.31	4.55	4.94	2.06	4.73	4.54	4.29	5.52
100 Wells Street, Chicago River	1.94	2.23	2.29	3.75	5.25	5.04	3.51	5.22	5.22	5.60	6.57
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	2.60	2.66	3.21	4.53	5.97	5.64	5.86	7.36	6.87	7.38	8.91
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.09	3.19	4.26	4.74	7.47	6.32	6.55	9.43	8.29	7.98	8.92
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.72	3.95	3.86	4.23	6.85	6.81	6.23	8.06	8.21	8.70	9.03
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	1.57	1.62	4.38	4.72	2.69	5.42	5.39	4.99	4.77
50 Burnham Avenue, Wolf Lake	ND	ND	4.19	3.64	6.05	5.49	4.30	7.02	6.10	4.94	7.01
55 130th Street, Calumet River	ND	ND	2.69	2.97	4.79	5.66	4.14	7.24	6.50	6.14	6.79
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	2.83	2.24	2.49	2.71	5.82	5.59	5.31	7.77	7.82	6.63	6.99
76 Halsted Street, Little Calumet River	3.30	3.65	3.15	3.66	6.34	6.66	6.83	8.74	8.96	9.11	8.41
52 Wentworth Avenue, Little Calumet River	ND	ND	4.11	3.55	7.19	5.99	6.96	10.56	10.37	10.90	12.00
54 Joe Orr Road, Thorn Creek	ND	ND	4.49	4.05	6.83	8.36	7.63	8.90	10.91	14.81	12.20
97 170th Street, Thorn Creek	ND	ND	4.68	4.71	7.91	8.02	7.64	10.69	10.72	13.04	11.68
57 Ashland Avenue, Little Calumet River	3.54	3.65	3.85	4.04	6.80	6.86	7.82	9.52	10.20	11.25	10.88
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	2.23	2.26	5.93	5.83	3.48	6.26	7.25	6.75	5.59
110 Springinguth Road, West Branch DuPage River	2.13	3.24	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	4.77	5.46	9.15	9.31	7.04	9.37	9.90	10.62	9.17
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	9.39	8.23	7.51	9.31	10.36	10.94	10.71
111 Arlington Drive, West Branch DuPage River	4.87	4.37	5.88	5.16	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.43	2.01	1.94	3.06	4.79	5.91	4.27	7.55	7.71	8.35	8.15
80 Arlington Heights Road, Salt Creek	ND	ND	3.81	3.02	6.94	6.24	5.33	9.10	10.09	10.26	9.43
18 Devon Avenue, Salt Creek	3.50	3.12	4.21	3.54	6.89	6.61	5.24	9.40	9.35	11.03	9.86
24 Wolf Road, Salt Creek	ND	ND	3.99	4.30	6.63	7.12	6.85	9.29	11.12	11.39	9.45
109 Brookfield Avenue, Salt Creek	3.49	3.12	3.97	3.76	8.37	7.30	7.67	8.92	10.50	10.71	8.96
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	1.95	2.25	2.58	3.00	4.78	4.99	3.74	6.99	8.79	11.23	8.33
78 Wille Road, Higgins Creek	4.85	3.83	5.42	4.44	6.42	7.56	7.43	11.79	12.65	15.45	13.34
12 Lake-Cook Road, Buffalo Creek	ND	ND	2.23	3.40	5.54	5.44	3.78	8.20	7.37	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	3.29	3.50	7.23	7.12	6.05	8.94	10.05	11.41	9.53
17 Oakton Street, Des Plaines River	ND	ND	2.97	3.41	5.94	6.18	5.05	8.40	9.12	10.16	9.23
19 Belmont Avenue, Des Plaines River	3.21	3.21	4.16	3.35	6.60	5.57	5.54	9.81	10.24	11.57	9.77
20 Roosevelt Road, Des Plaines River	ND	ND	3.41	3.55	6.24	6.23	6.16	9.70	9.69	10.91	8.99
22 Ogden Avenue, Des Plaines River	3.21	3.40	4.13	4.23	7.06	7.07	8.05	9.27	9.32	11.04	9.51
23 Willow Springs Road, Des Plaines River	3.34	3.35	4.13	3.97	6.11	6.19	7.96	8.01	9.51	10.68	9.37
29 Stephen Street, Des Plaines River	ND	ND	3.21	4.50	7.00	6.25	7.55	9.48	10.39	10.87	9.16
91 Material Service Road, Des Plaines River	3.62	3.14	4.15	3.65	8.06	7.02	6.48	9.94	9.65	12.34	9.48

ND = No Data.

TABLE AII-33: CHLOROPHYLL *a* MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	19.5	14.7	8.1	7.2	14.4	6.3	10.6	14.6	29.1
103 Golf Road, West Fork North Branch Chicago River	ND	ND	12.4	14.5	14.0	7.5	9.1	12.4	13.4	29.3	21.1
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	3.0	8.2	5.0	5.1	10.6	7.7	12.0	8.0	6.7
104 Glenview Road, North Branch Chicago River	ND	ND	11.2	8.0	7.0	5.9	10.6	12.2	19.7	10.1	12.1
32 Lake-Cook Road, Skokie River	ND	ND	8.2	7.9	7.0	6.2	8.3	8.9	7.6	12.0	22.5
105 Frontage Road, Skokie River	ND	ND	16.5	10.5	10.1	9.7	18.4	18.1	32.9	15.6	20.4
34 Dempster Street, North Branch Chicago River	ND	ND	16.3	12.2	7.7	5.6	8.7	9.7	16.7	24.2	15.8
96 Albany Avenue, North Branch Chicago River	14.3	10.9	9.1	9.5	8.8	7.1	7.8	9.0	14.0	35.6	21.5
35 Central Street, North Shore Channel	ND	ND	29.6	15.3	17.7	9.9	6.3	6.2	4.5	3.6	2.9
112 Dempster Street, North Shore Channel	66.7	12.4	12.4	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	18.7	4.6	16.8	11.3	12.6	16.2	22.6	8.1	12.5
36 Touhy Avenue, North Shore Channel	1.5	6.1	3.0	1.5	2.1	2.0	2.1	1.3	2.0	1.6	1.4
101 Foster Avenue, North Shore Channel	ND	ND	1.8	5.1	1.5	1.9	1.4	1.1	1.6	2.2	1.9
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.9	2.8	2.5	2.8	3.2	2.9	4.7	2.8	4.0
73 Diversey Parkway, North Branch Chicago River	3.0	3.7	4.0	3.5	2.8	2.2	3.6	2.4	4.3	2.6	3.8
46 Grand Avenue, North Branch Chicago River	ND	ND	7.7	4.3	2.6	2.7	3.5	4.9	6.1	4.3	5.8
74 Lake Shore Drive, Chicago River	ND	ND	1.5	1.5	1.3	1.3	1.6	2.2	1.4	3.3	4.7
100 Wells Street, Chicago River	2.8	3.4	4.2	2.2	1.9	1.6	2.5	2.2	2.5	2.8	3.0
39 Madison Street, South Branch Chicago River	ND	ND	4.9	3.4	3.8	1.9	3.5	4.0	4.4	4.2	4.1
108 Loomis Street, South Branch Chicago River	4.4	4.1	4.5	3.7	2.3	2.0	3.0	3.7	6.0	5.4	7.2
99 Archer Avenue, South Fork South Branch Chicago River	28.5	18.2	13.8	28.6	13.3	8.9	10.5	7.4	5.7	21.5	27.4
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	6.6	3.8	5.8	7.7	3.4	4.5	5.4	14.1	7.9
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	8.5	7.4	6.9	4.4	4.7	3.0	4.1	5.4	4.7	6.5	6.0
41 Harlem Avenue, Chicago Sanitary and Ship Canal	4.3	5.6	5.7	2.7	4.0	1.9	2.3	2.6	2.8	3.6	3.4
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	9.8	3.4	5.5	2.9	4.1	5.2	4.1	6.4	4.2
48 Stephen Street, Chicago Sanitary and Ship Canal	5.0	5.9	6.4	3.9	4.7	5.2	5.6	6.1	3.7	5.3	3.5
92 Lockport Forebay, Chicago Sanitary and Ship Canal	5.0	5.0	4.4	4.3	4.7	5.6	5.4	5.5	4.0	5.2	3.9
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	4.9	1.1	0.9	2.1	1.7	1.1	1.4	0.9	1.4
50 Burnham Avenue, Wolf Lake	ND	ND	6.9	6.4	4.5	5.4	6.7	6.2	4.7	6.8	4.8
55 130th Street, Calumet River	ND	ND	2.6	3.0	3.7	6.3	4.6	4.0	3.3	2.9	4.0
86 Burnham Avenue, Grand Calumet River	17.7	30.3	33.3	17.4	75.6	30.8	142.5	101.0	27.4	57.7	61.9
56 Indiana Avenue, Little Calumet River	18.7	7.3	10.9	4.0	14.1	27.0	20.6	14.0	25.8	16.4	7.2
76 Halsted Street, Little Calumet River	9.2	4.7	9.0	3.1	4.1	12.6	7.8	6.6	8.1	7.1	3.8
52 Wentworth Avenue, Little Calumet River	ND	ND	4.4	8.3	8.2	7.7	5.5	13.0	4.3	6.0	5.5
54 Joe Orr Road, Thorn Creek	ND	ND	3.4	3.7	4.7	4.8	4.1	3.0	3.7	12.4	6.7
97 170th Street, Thorn Creek	ND	ND	6.7	8.3	11.2	9.4	8.5	9.2	5.3	8.2	8.8
57 Ashland Avenue, Little Calumet River	10.4	17.3	10.8	7.9	8.0	10.5	8.2	7.1	4.7	9.2	7.5
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	9.4	5.4	7.0	11.3	8.0	7.2	9.5	10.4	4.8
59 Cicero Avenue, Calumet-Sag Channel	8.3	4.8	4.6	3.5	4.0	12.4	7.9	7.8	9.0	7.5	5.2
43 Route 83, Calumet-Sag Channel	7.3	4.3	6.9	4.5	5.2	9.0	10.0	6.5	6.3	8.8	4.4
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	8.8	7.8	10.0	9.0	8.9	10.9	13.9	12.5	8.1
110 Springinsguth Road, West Branch DuPage River	15.0	25.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	6.4	7.0	4.8	5.9	6.6	7.3	5.4	9.1	3.7
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	15.9	18.8	19.4	23.2	20.2	24.6	15.4
111 Arlington Drive, West Branch DuPage River	18.4	18.1	15.5	13.7	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	24.4	32.2	20.2	22.5	26.3	21.3	33.9	39.0	33.9	31.0	36.4
80 Arlington Heights Road, Salt Creek	ND	ND	9.2	15.2	15.6	13.6	11.7	13.8	16.5	12.4	11.2
18 Devon Avenue, Salt Creek	13.3	12.1	8.3	11.7	13.6	15.0	13.6	14.3	17.6	14.8	15.7
24 Wolf Road, Salt Creek	ND	ND	6.9	5.5	8.6	8.0	8.9	7.4	12.0	11.0	6.4
109 Brookfield Avenue, Salt Creek	10.5	4.7	4.5	6.9	8.2	9.5	6.1	7.3	16.1	11.3	9.9
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	22.0	13.3	12.5	8.8	28.3	8.4	25.7	14.7	11.9	14.1	8.5
78 Wille Road, Higgins Creek	2.6	2.7	2.2	2.3	2.6	2.2	2.4	3.8	3.0	2.5	2.6
12 Lake-Cook Road, Buffalo Creek	ND	ND	11.1	16.8	14.1	18.6	19.7	23.2	20.2	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	7.6	14.4	12.3	10.7	18.8	13.7	16.9	27.5	21.0
17 Oakton Street, Des Plaines River	ND	ND	6.7	26.9	14.2	19.2	35.1	12.3	13.0	34.3	18.3
19 Belmont Avenue, Des Plaines River	9.5	10.1	4.4	20.1	13.7	13.7	22.0	6.1	12.3	23.2	13.0
20 Roosevelt Road, Des Plaines River	ND	ND	6.3	23.8	12.6	20.1	23.3	6.7	11.4	23.4	14.2
22 Ogden Avenue, Des Plaines River	13.1	9.1	19.1	20.0	11.5	19.7	20.7	6.1	15.8	19.1	14.1
23 Willow Springs Road, Des Plaines River	15.1	9.8	6.0	15.8	12.6	27.5	22.5	5.1	13.5	29.0	15.9
29 Stephen Street, Des Plaines River	ND	ND	26.0	14.7	16.9	29.9	22.4	9.5	17.5	49.0	25.5
91 Material Service Road, Des Plaines River	18.3	18.4	10.6	16.3	26.3	24.1	26.3	11.9	23.8	34.6	40.4

ND = No Data.

TABLE AII-34: BENZENE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.000	2.000	2.500	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-35: ETHYLBENZENE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.200	3.200	2.667	2.120	0.000	0.000	0.400	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-36: TOLUENE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	2.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	1.267	0.000	0.000	0.500
36 Touhy Avenue, North Shore Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.333	0.667
37 Wilson Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000
73 Diversey Parkway, North Branch Chicago River	2.950	2.000	2.000	2.183	0.000	0.333	0.000	1.067	0.000	2.200	1.000
46 Grand Avenue, North Branch Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.967	0.640	0.000	0.400	0.000
74 Lake Shore Drive, Chicago River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	2.000	2.000	2.000	2.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	2.000	3.033	0.000	0.000	0.383	0.625	0.000	0.333	0.000
108 Loomis Street, South Branch Chicago River	2.000	2.000	2.000	2.000	0.000	0.000	0.383	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	3.000	2.000	5.500	2.000	1.200	0.000	0.000	0.000	0.000	0.800	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	7.250	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	2.000	6.167	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	2.120	2.000	2.333	2.460	0.000	1.033	0.000	0.000	0.000	0.400	0.000
56 Indiana Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	2.000	2.167	2.000	2.000	0.000	0.483	0.433	0.000	0.000	0.667	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	2.000	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.400	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	2.000	2.000	0.000	0.467	0.000	0.000	0.000	0.857	0.000
59 Cicero Avenue, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	2.000	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	2.000	2.000	2.000	2.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-37: XYLENE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	3.000	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	3.000	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	3.000	3.000	3.000	3.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-38: META AND/OR PARA XYLENES MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
112 Dempster Street, North Shore Channel	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-39: ORTHO XYLENE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
105 Frontage Road, Skokie River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
96 Albany Avenue, North Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
35 Central Street, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
112 Dempster Street, North Shore Channel	ND	3.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
36 Touhy Avenue, North Shore Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
100 Wells Street, Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
55 130th Street, Calumet River	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
86 Burnham Avenue, Grand Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	3.000	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	3.000	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
18 Devon Avenue, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
24 Wolf Road, Salt Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
109 Brookfield Avenue, Salt Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
78 Wille Road, Higgins Creek	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
19 Belmont Avenue, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
22 Ogden Avenue, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
23 Willow Springs Road, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	3.000	3.000	ND	ND	ND	ND	ND	ND	ND
91 Material Service Road, Des Plaines River	3.000	3.000	3.000	3.000	ND	ND	ND	ND	ND	ND	ND

ND = No Data.

TABLE AII-40: TOTAL SILVER MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
32 Lake-Cook Road, Skokie River	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
36 Touhy Avenue, North Shore Channel	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.001	0.000	0.000	0.000
100 Wells Street, Chicago River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.001	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.001	0.000
43 Route 83, Calumet-Sag Channel	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	0.001	0.001	0.001	0.004	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.001
12 Lake-Cook Road, Buffalo Creek	0.001	ND	0.002	0.004	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.001	0.001	0.001	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-41: TOTAL ARSENIC MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
32 Lake-Cook Road, Skokie River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
105 Frontage Road, Skokie River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
35 Central Street, North Shore Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000
55 130th Street, Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
111 Arlington Drive, West Branch DuPage River	ND	ND	0.050	0.050	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
109 Brookfield Avenue, Salt Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
78 Wille Road, Higgins Creek	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.050	0.050	0.000	0.000	0.545	0.000	0.001	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
19 Belmont Avenue, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.000
22 Ogden Avenue, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.000
23 Willow Springs Road, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
91 Material Service Road, Des Plaines River	ND	ND	0.050	0.050	0.000	0.000	0.000	0.000	0.000	0.002	0.001	0.001

ND = No Data.

TABLE AII-42: TOTAL BARIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.072	0.079	0.064	0.060	0.063	0.062	0.056	0.051	0.069
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.056	0.055	0.054	0.048	0.048	0.052	0.052	0.055	0.048
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.039	0.037	0.039	0.036	0.042	0.041	0.045	0.042	0.040
104 Glenview Road, North Branch Chicago River	ND	ND	0.034	0.036	0.033	0.032	0.037	0.034	0.037	0.032	0.034
32 Lake-Cook Road, Skokie River	ND	ND	0.046	0.043	0.042	0.038	0.042	0.048	0.043	0.041	0.046
105 Frontage Road, Skokie River	ND	ND	0.032	0.031	0.030	0.030	0.035	0.032	0.030	0.030	0.033
34 Dempster Street, North Branch Chicago River	ND	ND	0.046	0.039	0.040	0.035	0.039	0.038	0.040	0.041	0.040
96 Albany Avenue, North Branch Chicago River	0.044	0.038	0.036	0.041	0.038	0.037	0.042	0.039	0.041	0.040	0.037
35 Central Street, North Shore Channel	ND	ND	0.029	0.024	0.023	0.021	0.024	0.023	0.022	0.025	0.023
112 Dempster Street, North Shore Channel	0.026	0.027	0.030	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.027	0.026	0.026	0.023	0.025	0.025	0.023	0.025	0.023
36 Touhy Avenue, North Shore Channel	0.025	0.022	0.023	0.026	0.022	0.026	0.026	0.024	0.021	0.022	0.023
101 Foster Avenue, North Shore Channel	ND	ND	0.025	0.025	0.023	0.025	0.027	0.024	0.021	0.022	0.023
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.027	0.029	0.028	0.027	0.030	0.027	0.025	0.024	0.026
73 Diversey Parkway, North Branch Chicago River	0.029	0.025	0.024	0.028	0.026	0.027	0.030	0.026	0.025	0.024	0.026
46 Grand Avenue, North Branch Chicago River	ND	ND	0.028	0.028	0.026	0.027	0.030	0.028	0.026	0.025	0.028
74 Lake Shore Drive, Chicago River	ND	ND	0.026	0.026	0.023	0.022	0.023	0.024	0.022	0.023	0.025
100 Wells Street, Chicago River	0.027	0.026	0.025	0.026	0.023	0.024	0.026	0.024	0.023	0.023	0.024
39 Madison Street, South Branch Chicago River	ND	ND	0.029	0.030	0.026	0.027	0.028	0.027	0.025	0.024	0.024
108 Loomis Street, South Branch Chicago River	0.030	0.026	0.025	0.028	0.026	0.027	0.030	0.028	0.026	0.025	0.025
99 Archer Avenue, South Fork South Branch Chicago River	0.031	0.027	0.026	0.029	0.026	0.026	0.030	0.025	0.025	0.025	0.025
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.029	0.028	0.027	0.027	0.029	0.028	0.027	0.025	0.025
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.030	0.025	0.024	0.030	0.026	0.027	0.030	0.027	0.026	0.025	0.026
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.024	0.020	0.020	0.025	0.022	0.023	0.024	0.024	0.021	0.020	0.020
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.022	0.021	0.022	0.024	0.022	0.020	0.020	0.020
48 Stephen Street, Chicago Sanitary and Ship Canal	0.025	0.021	0.022	0.025	0.023	0.023	0.026	0.025	0.023	0.023	0.023
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.025	0.022	0.020	0.024	0.023	0.024	0.026	0.023	0.023	0.023	0.024
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.023	0.024	0.022	0.022	0.022	0.023	0.022	0.022	0.023
50 Burnham Avenue, Wolf Lake	ND	ND	0.045	0.036	0.035	0.034	0.034	0.036	0.028	0.033	0.032
55 130th Street, Calumet River	ND	ND	0.032	0.030	0.028	0.029	0.030	0.032	0.031	0.030	0.030
86 Burnham Avenue, Grand Calumet River	0.032	0.036	0.034	0.033	0.037	0.028	0.031	0.034	0.029	0.043	0.027
56 Indiana Avenue, Little Calumet River	0.029	0.027	0.028	0.031	0.029	0.033	0.034	0.033	0.031	0.030	0.030
76 Halsted Street, Little Calumet River	0.026	0.022	0.021	0.025	0.021	0.025	0.027	0.024	0.022	0.022	0.022
52 Wentworth Avenue, Little Calumet River	ND	ND	0.039	0.043	0.044	0.039	0.040	0.039	0.043	0.037	0.042
54 Joe Orr Road, Thorn Creek	ND	ND	0.025	0.032	0.035	0.029	0.031	0.028	0.031	0.042	0.034
97 170th Street, Thorn Creek	ND	ND	0.046	0.043	0.041	0.037	0.038	0.035	0.041	0.042	0.042
57 Ashland Avenue, Little Calumet River	0.043	0.035	0.034	0.042	0.039	0.037	0.038	0.036	0.042	0.040	0.043
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.025	0.030	0.029	0.027	0.026	0.026	0.024	0.026	0.025
59 Cicero Avenue, Calumet-Sag Channel	0.031	0.026	0.023	0.029	0.026	0.027	0.027	0.027	0.028	0.024	0.027
43 Route 83, Calumet-Sag Channel	0.030	0.025	0.023	0.028	0.026	0.027	0.027	0.027	0.028	0.025	0.026
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.071	0.064	0.069	0.062	0.071	0.078	0.095	0.112	0.102
110 Springinguth Road, West Branch DuPage River	0.053	0.048	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.035	0.035	0.031	0.029	0.032	0.029	0.030	0.026	0.028
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.046	0.034	0.039	0.031	0.035	0.033	0.035
111 Arlington Drive, West Branch DuPage River	0.039	0.036	0.037	0.037	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.045	0.039	0.041	0.043	0.038	0.041	0.051	0.045	0.044	0.053	0.052
80 Arlington Heights Road, Salt Creek	ND	ND	0.035	0.032	0.031	0.027	0.031	0.027	0.033	0.033	0.030
18 Devon Avenue, Salt Creek	0.032	0.029	0.026	0.030	0.034	0.028	0.031	0.028	0.033	0.031	0.029
24 Wolf Road, Salt Creek	ND	ND	0.036	0.035	0.037	0.034	0.037	0.034	0.035	0.033	0.034
109 Brookfield Avenue, Salt Creek	0.036	0.033	0.031	0.036	0.036	0.034	0.038	0.034	0.036	0.033	0.036
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.060	0.053	0.057	0.047	0.061	0.043	0.064	0.043	0.056	0.056	0.067
78 Wille Road, Higgins Creek	0.024	0.025	0.025	0.029	0.026	0.029	0.026	0.024	0.024	0.020	0.024
12 Lake-Cook Road, Buffalo Creek	0.036	ND	0.043	0.043	0.050	0.042	0.049	0.044	0.047	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.046	0.038	0.042	0.033	0.040	0.040	0.045	0.038	0.038
17 Oakton Street, Des Plaines River	ND	ND	0.043	0.041	0.044	0.035	0.041	0.040	0.046	0.040	0.040
19 Belmont Avenue, Des Plaines River	0.043	0.038	0.038	0.039	0.040	0.034	0.040	0.038	0.043	0.037	0.038
20 Roosevelt Road, Des Plaines River	ND	ND	0.039	0.039	0.040	0.034	0.042	0.038	0.044	0.037	0.038
22 Ogden Avenue, Des Plaines River	0.039	0.037	0.038	0.038	0.038	0.034	0.039	0.037	0.042	0.036	0.038
23 Willow Springs Road, Des Plaines River	0.039	0.036	0.036	0.038	0.037	0.033	0.039	0.036	0.039	0.036	0.037
29 Stephen Street, Des Plaines River	ND	ND	0.039	0.037	0.038	0.033	0.039	0.037	0.041	0.035	0.037
91 Material Service Road, Des Plaines River	0.038	0.034	0.034	0.038	0.037	0.033	0.039	0.037	0.041	0.035	0.038

ND = No Data.

**TABLE AII-43: TOTAL BORON MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.138	0.145	0.138	0.160	0.150	0.135	0.129	0.178	0.203
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.121	0.125	0.124	0.113	0.104	0.149	0.145	0.191	0.139
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.090	0.073	0.067	0.074	0.085	0.121	0.118	0.176	0.170
104 Glenview Road, North Branch Chicago River	ND	ND	0.113	0.103	0.126	0.107	0.115	0.142	0.142	0.182	0.155
32 Lake-Cook Road, Skokie River	ND	ND	0.095	0.093	0.092	0.093	0.097	0.120	0.135	0.161	0.129
105 Frontage Road, Skokie River	ND	ND	0.126	0.121	0.137	0.124	0.121	0.149	0.161	0.188	0.172
34 Dempster Street, North Branch Chicago River	ND	ND	0.116	0.114	0.107	0.103	0.113	0.139	0.143	0.192	0.153
96 Albany Avenue, North Branch Chicago River	0.112	0.098	0.117	0.114	0.118	0.112	0.109	0.138	0.151	0.185	0.150
35 Central Street, North Shore Channel	ND	ND	0.052	0.060	0.000	0.011	0.012	0.036	0.037	0.039	0.037
112 Dempster Street, North Shore Channel	0.059	0.067	0.115	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.129	0.100	0.060	0.070	0.060	0.087	0.117	0.093	0.076
36 Touhy Avenue, North Shore Channel	0.151	0.127	0.158	0.150	0.160	0.151	0.173	0.185	0.193	0.180	0.172
101 Foster Avenue, North Shore Channel	ND	ND	0.150	0.132	0.151	0.147	0.167	0.182	0.192	0.177	0.174
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.138	0.125	0.138	0.128	0.146	0.160	0.173	0.168	0.161
73 Diversey Parkway, North Branch Chicago River	0.140	0.118	0.148	0.128	0.143	0.123	0.142	0.166	0.166	0.160	0.162
46 Grand Avenue, North Branch Chicago River	ND	ND	0.141	0.121	0.132	0.116	0.132	0.154	0.163	0.172	0.160
74 Lake Shore Drive, Chicago River	ND	ND	0.077	0.077	0.024	0.023	0.040	0.092	0.067	0.061	0.073
100 Wells Street, Chicago River	0.066	0.083	0.104	0.093	0.044	0.045	0.069	0.079	0.081	0.082	0.092
39 Madison Street, South Branch Chicago River	ND	ND	0.117	0.117	0.103	0.102	0.109	0.107	0.128	0.132	0.144
108 Loomis Street, South Branch Chicago River	0.096	0.101	0.125	0.108	0.107	0.103	0.109	0.109	0.131	0.135	0.143
99 Archer Avenue, South Fork South Branch Chicago River	0.104	0.101	0.111	0.110	0.118	0.099	0.125	0.111	0.117	0.134	0.139
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.120	0.108	0.108	0.101	0.111	0.106	0.130	0.133	0.141
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.102	0.104	0.124	0.109	0.114	0.095	0.125	0.117	0.124	0.133	0.144
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.167	0.147	0.163	0.154	0.152	0.145	0.166	0.168	0.183	0.176	0.207
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.256	0.213	0.221	0.164	0.168	0.208	0.223	0.219	0.261
48 Stephen Street, Chicago Sanitary and Ship Canal	0.194	0.208	0.235	0.195	0.204	0.153	0.175	0.192	0.208	0.216	0.221
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.190	0.191	0.215	0.191	0.203	0.162	0.185	0.196	0.218	0.223	0.206
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.050	0.060	0.000	0.017	0.017	0.046	0.049	0.042	0.046
50 Burnham Avenue, Wolf Lake	ND	ND	0.217	0.244	0.242	0.238	0.181	0.171	0.115	0.147	0.144
55 130th Street, Calumet River	ND	ND	0.151	0.114	0.089	0.111	0.119	0.146	0.107	0.113	0.111
86 Burnham Avenue, Grand Calumet River	0.549	0.687	0.615	0.805	0.774	0.345	0.682	0.583	0.601	0.287	0.429
56 Indiana Avenue, Little Calumet River	0.140	0.091	0.133	0.132	0.111	0.122	0.145	0.165	0.137	0.116	0.127
76 Halsted Street, Little Calumet River	0.177	0.175	0.189	0.187	0.173	0.171	0.205	0.194	0.224	0.205	0.189
52 Wentworth Avenue, Little Calumet River	ND	ND	0.254	0.140	0.179	0.169	0.262	0.231	0.240	0.224	0.242
54 Joe Orr Road, Thorn Creek	ND	ND	0.293	0.203	0.221	0.256	0.324	0.313	0.404	0.269	0.320
97 170th Street, Thorn Creek	ND	ND	0.238	0.182	0.194	0.207	0.246	0.222	0.297	0.251	0.269
57 Ashland Avenue, Little Calumet River	0.176	0.212	0.223	0.171	0.180	0.191	0.241	0.202	0.258	0.232	0.223
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.193	0.171	0.176	0.163	0.202	0.173	0.230	0.206	0.194
59 Cicero Avenue, Calumet-Sag Channel	0.161	0.172	0.189	0.174	0.172	0.154	0.201	0.165	0.224	0.199	0.193
43 Route 83, Calumet-Sag Channel	0.157	0.161	0.190	0.157	0.181	0.148	0.187	0.168	0.204	0.207	0.187
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.054	0.060	0.025	0.024	0.047	0.058	0.061	0.071	0.056
110 Springinsguth Road, West Branch DuPage River	0.088	0.081	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.181	0.169	0.216	0.203	0.218	0.248	0.247	0.278	0.274
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.102	0.149	0.183	0.187	0.190	0.238	0.225
111 Arlington Drive, West Branch DuPage River	0.155	0.139	0.169	0.146	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.090	0.084	0.081	0.099	0.051	0.079	0.082	0.085	0.091	0.098	0.089
80 Arlington Heights Road, Salt Creek	ND	ND	0.170	0.134	0.190	0.145	0.176	0.198	0.191	0.205	0.197
18 Devon Avenue, Salt Creek	0.208	0.162	0.218	0.150	0.189	0.135	0.172	0.196	0.196	0.207	0.189
24 Wolf Road, Salt Creek	ND	ND	0.166	0.163	0.162	0.145	0.178	0.182	0.188	0.233	0.193
109 Brookfield Avenue, Salt Creek	0.198	0.153	0.196	0.155	0.181	0.150	0.188	0.183	0.210	0.262	0.195
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.090	0.078	0.106	0.080	0.000	0.055	0.110	0.089	0.083	0.081	0.084
78 Wille Road, Higgins Creek	0.225	0.204	0.245	0.224	0.202	0.193	0.245	0.260	0.289	0.366	0.303
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.073	0.081	0.073	0.091	0.100	0.088	0.107	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.121	0.114	0.141	0.117	0.157	0.155	0.181	0.221	0.191
17 Oakton Street, Des Plaines River	ND	ND	0.124	0.113	0.141	0.101	0.144	0.137	0.155	0.215	0.167
19 Belmont Avenue, Des Plaines River	0.130	0.128	0.177	0.125	0.149	0.112	0.154	0.154	0.170	0.236	0.181
20 Roosevelt Road, Des Plaines River	ND	ND	0.133	0.126	0.155	0.107	0.168	0.151	0.172	0.237	0.182
22 Ogden Avenue, Des Plaines River	0.146	0.136	0.188	0.130	0.151	0.121	0.169	0.155	0.183	0.236	0.194
23 Willow Springs Road, Des Plaines River	0.148	0.134	0.183	0.129	0.155	0.116	0.170	0.161	0.185	0.243	0.182
29 Stephen Street, Des Plaines River	ND	ND	0.134	0.120	0.145	0.110	0.160	0.167	0.192	0.243	0.177
91 Material Service Road, Des Plaines River	0.150	0.133	0.173	0.124	0.148	0.116	0.162	0.173	0.198	0.249	0.179

ND = No Data.

TABLE AII-44: TOTAL CADMIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
105 Frontage Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
96 Albany Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
100 Wells Street, Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
56 Indiana Avenue, Little Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.001	0.001
97 170th Street, Thorn Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.001
57 Ashland Avenue, Little Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.001	0.001	0.001	0.000	0.000	0.001
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.001
111 Arlington Drive, West Branch DuPage River	ND	ND	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
18 Devon Avenue, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.003
78 Wille Road, Higgins Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.001	0.001	0.002	0.000	0.000	0.000	0.000	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
22 Ogden Avenue, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
23 Willow Springs Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000
91 Material Service Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001

ND = No Data.

TABLE AII-45: TOTAL COPPER MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.014	0.020	0.004	0.003	0.005	0.006	0.012	0.028	0.025
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.007	0.020	0.000	0.001	0.000	0.002	0.004	0.017	0.013
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.007	0.020	0.000	0.000	0.000	0.001	0.005	0.021	0.012
104 Glenview Road, North Branch Chicago River	ND	ND	0.007	0.021	0.000	0.001	0.000	0.002	0.005	0.016	0.013
32 Lake-Cook Road, Skokie River	ND	ND	0.006	0.021	0.000	0.001	0.000	0.001	0.006	0.017	0.012
105 Frontage Road, Skokie River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.003	0.018	0.014
34 Dempster Street, North Branch Chicago River	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.004	0.018	0.013
96 Albany Avenue, North Branch Chicago River	ND	ND	0.006	0.020	0.001	0.000	0.000	0.002	0.004	0.017	0.016
35 Central Street, North Shore Channel	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.001	0.014	0.011
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.006	0.020	0.001	0.000	0.000	0.001	0.003	0.013	0.012
36 Touhy Avenue, North Shore Channel	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.004	0.017	0.012
101 Foster Avenue, North Shore Channel	ND	ND	0.006	0.020	0.000	0.000	0.000	0.003	0.003	0.016	0.014
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.006	0.020	0.000	0.000	0.000	0.002	0.003	0.016	0.013
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.006	0.020	0.000	0.001	0.000	0.002	0.003	0.017	0.011
46 Grand Avenue, North Branch Chicago River	ND	ND	0.007	0.020	0.003	0.000	0.000	0.003	0.004	0.017	0.015
74 Lake Shore Drive, Chicago River	ND	ND	0.006	0.020	0.000	0.000	0.000	0.003	0.002	0.015	0.013
100 Wells Street, Chicago River	ND	ND	0.009	0.020	0.001	0.000	0.000	0.004	0.004	0.016	0.015
39 Madison Street, South Branch Chicago River	ND	ND	0.007	0.020	0.000	0.000	0.000	0.005	0.004	0.017	0.015
108 Loomis Street, South Branch Chicago River	ND	ND	0.007	0.020	0.000	0.000	0.001	0.007	0.005	0.018	0.018
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.008	0.020	0.000	0.000	0.000	0.003	0.004	0.015	0.014
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.008	0.020	0.000	0.000	0.001	0.005	0.006	0.018	0.015
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.009	0.020	0.000	0.000	0.000	0.005	0.005	0.019	0.015
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.007	0.020	0.000	0.000	0.000	0.003	0.003	0.013	0.012
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.020	0.000	0.000	0.001	0.005	0.002	0.015	0.016
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.008	0.020	0.000	0.000	0.001	0.004	0.002	0.015	0.020
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.020	0.000	0.000	0.001	0.002	0.003	0.016	0.013
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.004	0.013	0.010
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.002	0.014	0.011
55 130th Street, Calumet River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.006	0.013	0.013
86 Burnham Avenue, Grand Calumet River	ND	ND	0.005	0.020	0.001	0.000	0.000	0.004	0.006	0.038	0.016
56 Indiana Avenue, Little Calumet River	ND	ND	0.006	0.020	0.000	0.002	0.000	0.005	0.004	0.015	0.013
76 Halsted Street, Little Calumet River	ND	ND	0.005	0.020	0.000	0.028	0.001	0.001	0.002	0.015	0.010
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.020	0.001	0.000	0.000	0.002	0.003	0.015	0.015
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.020	0.000	0.000	0.000	0.000	0.001	0.020	0.014
97 170th Street, Thorn Creek	ND	ND	0.005	0.020	0.001	0.000	0.000	0.003	0.002	0.017	0.016
57 Ashland Avenue, Little Calumet River	ND	ND	0.017	0.020	0.001	0.007	0.000	0.004	0.002	0.019	0.014
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.029	0.020	0.000	0.013	0.000	0.001	0.002	0.020	0.011
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.014	0.011
43 Route 83, Calumet-Sag Channel	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.014	0.012
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.001	0.015	0.009
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.008	0.020	0.002	0.003	0.003	0.006	0.007	0.021	0.018
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.005	0.006	0.022	0.016
111 Arlington Drive, West Branch DuPage River	ND	ND	0.006	0.020	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.001	0.017	0.011
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.003	0.018	0.013
18 Devon Avenue, Salt Creek	ND	ND	0.005	0.020	0.000	0.001	0.000	0.002	0.003	0.021	0.012
24 Wolf Road, Salt Creek	ND	ND	0.005	0.020	0.001	0.000	0.001	0.005	0.006	0.020	0.013
109 Brookfield Avenue, Salt Creek	ND	ND	0.005	0.020	0.003	0.001	0.001	0.005	0.007	0.020	0.014
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.005	0.020	0.000	0.000	0.003	0.005	0.006	0.016	0.017
78 Wille Road, Higgins Creek	ND	ND	0.008	0.020	0.000	0.000	0.001	0.001	0.001	0.017	0.012
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.001	0.002	0.017	0.013
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.002	0.002	0.016	0.012
19 Belmont Avenue, Des Plaines River	ND	ND	0.006	0.020	0.000	0.000	0.001	0.002	0.003	0.019	0.014
20 Roosevelt Road, Des Plaines River	ND	ND	0.006	0.020	0.001	0.000	0.001	0.003	0.003	0.017	0.011
22 Ogden Avenue, Des Plaines River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.004	0.004	0.020	0.012
23 Willow Springs Road, Des Plaines River	ND	ND	0.005	0.020	0.000	0.000	0.000	0.003	0.004	0.021	0.012
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.026	0.001	0.000	0.000	0.003	0.004	0.019	0.011
91 Material Service Road, Des Plaines River	ND	ND	0.005	0.021	0.000	0.000	0.000	0.003	0.003	0.017	0.014

ND = No Data.

TABLE AII-46: TOTAL CHROMIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.005	0.010	0.001	0.002	0.002	0.003	0.004	0.000	0.001
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.002	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.010	0.000	0.001	0.001	0.002	0.003	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.010	0.000	0.002	0.001	0.001	0.003	0.000	0.001
32 Lake-Cook Road, Skokie River	ND	ND	0.005	0.010	0.001	0.001	0.001	0.001	0.003	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.005	0.010	0.001	0.000	0.000	0.001	0.001	0.000	0.001
34 Dempster Street, North Branch Chicago River	ND	ND	0.005	0.010	0.000	0.002	0.001	0.002	0.002	0.000	0.000
96 Albany Avenue, North Branch Chicago River	ND	ND	0.005	0.010	0.001	0.001	0.002	0.002	0.002	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	0.005	0.010	0.000	0.000	0.000	0.001	0.001	0.002	0.000
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.000	0.000
36 Touhy Avenue, North Shore Channel	ND	ND	0.006	0.010	0.000	0.000	0.000	0.001	0.001	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.005	0.010	0.000	0.000	0.001	0.001	0.001	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.010	0.000	0.000	0.001	0.001	0.001	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.005	0.020	0.000	0.001	0.000	0.001	0.001	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.005	0.010	0.000	0.002	0.003	0.003	0.002	0.000	0.001
74 Lake Shore Drive, Chicago River	ND	ND	0.005	0.010	0.000	0.000	0.001	0.002	0.001	0.000	0.000
100 Wells Street, Chicago River	ND	ND	0.005	0.010	0.000	0.000	0.001	0.003	0.001	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.007	0.010	0.001	0.001	0.002	0.004	0.001	0.000	0.001
108 Loomis Street, South Branch Chicago River	ND	ND	0.008	0.010	0.001	0.001	0.004	0.004	0.002	0.000	0.001
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.005	0.010	0.000	0.001	0.002	0.002	0.001	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.010	0.001	0.002	0.004	0.003	0.002	0.000	0.001
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.013	0.010	0.001	0.003	0.005	0.003	0.002	0.001	0.001
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.010	0.000	0.002	0.008	0.003	0.002	0.000	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.045	0.001	0.002	0.002	0.004	0.002	0.000	0.003
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.022	0.001	0.003	0.002	0.004	0.002	0.002	0.002
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.010	0.001	0.003	0.003	0.002	0.002	0.001	0.002
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.010	0.001	0.000	0.001	0.002	0.001	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.010	0.000	0.001	0.000	0.001	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.005	0.010	0.000	0.001	0.000	0.001	0.002	0.000	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	0.005	0.010	0.000	0.002	0.001	0.003	0.003	0.009	0.002
56 Indiana Avenue, Little Calumet River	ND	ND	0.005	0.010	0.000	0.004	0.002	0.003	0.002	0.000	0.000
76 Halsted Street, Little Calumet River	ND	ND	0.005	0.010	0.000	0.001	0.002	0.002	0.002	0.000	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.010	0.003	0.003	0.001	0.002	0.002	0.001	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.010	0.001	0.001	0.000	0.001	0.001	0.004	0.000
97 170th Street, Thorn Creek	ND	ND	0.005	0.010	0.002	0.001	0.001	0.002	0.002	0.001	0.002
57 Ashland Avenue, Little Calumet River	ND	ND	0.005	0.010	0.002	0.003	0.001	0.004	0.002	0.002	0.002
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.010	0.001	0.001	0.002	0.003	0.001	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.005	0.010	0.001	0.001	0.003	0.002	0.002	0.000	0.002
43 Route 83, Calumet-Sag Channel	ND	ND	0.005	0.010	0.000	0.001	0.001	0.002	0.002	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.010	0.002	0.001	0.003	0.001	0.001	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.006	0.012	0.002	0.002	0.003	0.001	0.001	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.001	0.001	0.002	0.002	0.002	0.000	0.000
111 Arlington Drive, West Branch DuPage River	ND	ND	0.005	0.010	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.005	0.010	0.001	0.001	0.001	0.002	0.002	0.001	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.010	0.000	0.002	0.000	0.001	0.001	0.000	0.000
18 Devon Avenue, Salt Creek	ND	ND	0.005	0.010	0.000	0.002	0.000	0.001	0.001	0.001	0.000
24 Wolf Road, Salt Creek	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.003	0.001	0.000
109 Brookfield Avenue, Salt Creek	ND	ND	0.005	0.010	0.001	0.001	0.002	0.002	0.007	0.003	0.003
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.005	0.010	0.000	0.002	0.004	0.003	0.003	0.000	0.000
78 Wille Road, Higgins Creek	ND	ND	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.000	0.001
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.005	0.010	0.002	0.004	0.001	0.002	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.010	0.000	0.001	0.001	0.001	0.001	0.001	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.010	0.000	0.002	0.001	0.001	0.001	0.000	0.000
19 Belmont Avenue, Des Plaines River	ND	ND	0.005	0.013	0.001	0.006	0.002	0.002	0.002	0.013	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.010	0.002	0.002	0.002	0.002	0.002	0.004	0.000
22 Ogden Avenue, Des Plaines River	ND	ND	0.005	0.010	0.002	0.002	0.002	0.002	0.003	0.002	0.002
23 Willow Springs Road, Des Plaines River	ND	ND	0.005	0.010	0.013	0.002	0.002	0.002	0.003	0.005	0.001
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.010	0.001	0.002	0.001	0.002	0.004	0.003	0.001
91 Material Service Road, Des Plaines River	ND	ND	0.005	0.010	0.001	0.001	0.003	0.002	0.002	0.002	0.001

ND = No Data.

TABLE AII-47: TOTAL HEXAVALENT CHROMIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.500	1.800	3.500	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.500	1.400	0.500
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.182	1.300	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.667	1.500	0.167
32 Lake-Cook Road, Skokie River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.600	0.333	0.909	0.000
105 Frontage Road, Skokie River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.750	1.250	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	1.000	1.909	0.167
96 Albany Avenue, North Branch Chicago River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.636	0.333	1.273	0.364
35 Central Street, North Shore Channel	ND	ND	6.000	10.000	0.000	0.000	0.000	0.333	0.889	1.750	0.000
112 Dempster Street, North Shore Channel	6.000	6.000	6.000	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.333	1.750	0.167
36 Touhy Avenue, North Shore Channel	6.000	6.091	6.000	10.000	0.000	0.000	0.000	1.083	0.500	1.333	0.583
101 Foster Avenue, North Shore Channel	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.667	1.846	0.417
37 Wilson Avenue, North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.167	0.667	1.833	0.333
73 Diversey Parkway, North Branch Chicago River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.333	0.750	1.583	0.750
46 Grand Avenue, North Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.333	1.667	0.667
74 Lake Shore Drive, Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.909	0.364	0.400	0.222
100 Wells Street, Chicago River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	1.000	0.417	0.417	0.333
39 Madison Street, South Branch Chicago River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.750	0.667	0.417
108 Loomis Street, South Branch Chicago River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.167	0.667	0.500	0.333
99 Archer Avenue, South Fork South Branch Chicago River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.364	0.286	0.909	0.417
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	6.000	10.000	0.000	0.000	0.000	0.583	0.500	0.833	0.333
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	6.000	6.000	6.000	10.000	0.000	0.000	1.417	1.083	0.583	0.750	0.333
41 Harlem Avenue, Chicago Sanitary and Ship Canal	6.000	6.000	6.000	10.000	0.000	0.000	2.909	0.333	0.500	0.667	0.333
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.667	0.818	0.333
48 Stephen Street, Chicago Sanitary and Ship Canal	6.000	6.083	6.000	10.000	0.000	0.000	0.000	0.636	0.667	0.909	0.333
92 Lockport Forebay, Chicago Sanitary and Ship Canal	6.000	6.059	6.078	10.000	0.000	0.000	0.000	0.540	0.627	1.442	0.404
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.400	0.364	0.818	0.400
50 Burnham Avenue, Wolf Lake	ND	ND	6.000	10.000	0.000	0.000	0.000	0.545	0.636	1.167	0.167
55 130th Street, Calumet River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.400	0.818	1.091	0.182
86 Burnham Avenue, Grand Calumet River	6.100	6.000	6.000	10.000	0.000	0.000	0.000	0.200	0.818	1.700	0.444
56 Indiana Avenue, Little Calumet River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.500	0.818	1.000	0.444
76 Halsted Street, Little Calumet River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.909	0.818	1.583	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.727	1.364	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	0.200	0.667	2.500	0.000
97 170th Street, Thorn Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	1.000	0.818	1.636	0.000
57 Ashland Avenue, Little Calumet River	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.364	1.091	1.545	0.200
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	6.000	10.000	0.000	0.000	0.000	0.727	0.909	1.500	0.167
59 Cicero Avenue, Calumet-Sag Channel	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.273	0.727	1.583	0.167
43 Route 83, Calumet-Sag Channel	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.273	1.000	1.273	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.417	1.455	1.091
110 Springinsguth Road, West Branch DuPage River	6.125	6.000	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.417	0.417	1.250	1.091
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.750	0.833	1.583	1.167
111 Arlington Drive, West Branch DuPage River	6.000	6.000	6.000	10.000	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.200	0.778	1.778	1.091
80 Arlington Heights Road, Salt Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	0.167	0.167	2.250	1.000
18 Devon Avenue, Salt Creek	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.417	0.333	1.667	1.167
24 Wolf Road, Salt Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.417	2.333	0.636
109 Brookfield Avenue, Salt Creek	6.111	6.000	6.250	10.000	0.000	0.000	0.000	0.182	3.500	1.917	2.364
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	6.000	6.000	6.000	10.000	0.000	0.000	0.000	0.400	0.714	1.000	0.667
78 Wille Road, Higgins Creek	6.083	6.083	6.000	10.000	0.000	0.000	0.000	0.167	0.500	1.333	0.364
12 Lake-Cook Road, Buffalo Creek	ND	ND	6.000	10.000	0.000	0.000	0.000	0.333	0.778	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.833	0.000	1.583	0.909
17 Oakton Street, Des Plaines River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.182	0.167	1.417	1.000
19 Belmont Avenue, Des Plaines River	6.000	6.000	38.417	10.000	0.000	0.000	0.000	0.000	0.583	10.333	1.000
20 Roosevelt Road, Des Plaines River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.364	0.417	3.833	0.636
22 Ogden Avenue, Des Plaines River	6.000	9.500	12.583	10.000	0.000	0.000	0.000	0.364	0.667	1.500	0.727
23 Willow Springs Road, Des Plaines River	6.000	8.545	6.000	10.000	11.583	0.000	0.000	0.182	0.833	3.083	1.273
29 Stephen Street, Des Plaines River	ND	ND	6.000	10.000	0.000	0.000	0.000	0.000	0.750	1.500	0.727
91 Material Service Road, Des Plaines River	6.000	6.000	6.333	10.000	0.000	0.000	0.000	0.273	0.750	1.417	0.545

ND = No Data.

TABLE AII-48: TOTAL IRON MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	2.150	1.310	0.991	1.346	1.915	1.138	2.559	1.173	1.846
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.850	0.664	0.571	1.029	0.838	0.573	1.142	0.864	0.698
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.350	0.589	0.698	0.894	1.080	0.853	1.924	0.817	0.917
104 Glenview Road, North Branch Chicago River	ND	ND	0.525	0.967	0.614	0.885	0.909	0.617	1.421	0.598	0.705
32 Lake-Cook Road, Skokie River	ND	ND	0.700	0.830	0.602	0.976	1.095	0.846	1.756	0.867	0.922
105 Frontage Road, Skokie River	ND	ND	0.300	0.575	0.459	0.631	0.711	0.584	0.591	0.476	0.856
34 Dempster Street, North Branch Chicago River	ND	ND	0.725	0.618	0.469	0.828	0.921	0.693	1.091	0.697	0.703
96 Albany Avenue, North Branch Chicago River	ND	ND	0.375	0.636	0.605	0.797	1.098	0.595	0.917	0.646	0.722
35 Central Street, North Shore Channel	ND	ND	0.250	0.225	0.174	0.278	0.300	0.209	0.322	0.329	0.297
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.225	0.433	0.553	0.340	0.490	0.388	0.394	0.358	0.393
36 Touhy Avenue, North Shore Channel	ND	ND	0.150	0.200	0.134	0.173	0.198	0.158	0.180	0.209	0.241
101 Foster Avenue, North Shore Channel	ND	ND	0.175	0.250	0.171	0.182	0.259	0.185	0.214	0.306	0.320
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.200	0.333	0.309	0.458	0.484	0.322	0.361	0.306	0.385
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.250	0.500	0.274	0.478	0.459	0.373	0.401	0.319	0.384
46 Grand Avenue, North Branch Chicago River	ND	ND	0.325	0.375	0.320	0.546	0.479	0.552	0.506	0.386	0.637
74 Lake Shore Drive, Chicago River	ND	ND	0.125	0.200	0.090	0.103	0.148	0.161	0.099	0.127	0.136
100 Wells Street, Chicago River	ND	ND	0.400	0.275	0.126	0.182	0.292	0.172	0.178	0.171	0.180
39 Madison Street, South Branch Chicago River	ND	ND	0.450	0.417	0.336	0.410	0.477	0.527	0.294	0.326	0.394
108 Loomis Street, South Branch Chicago River	ND	ND	0.425	0.433	0.360	0.437	0.566	0.543	0.397	0.327	0.382
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.725	0.467	0.394	0.460	0.483	0.379	0.384	0.393	0.462
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.450	0.408	0.393	0.460	0.513	0.495	0.465	0.360	0.488
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.625	0.692	0.389	0.523	0.473	0.509	0.494	0.401	0.484
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.275	0.375	0.207	0.340	0.286	0.418	0.295	0.256	0.270
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.225	0.475	0.209	0.307	0.364	0.425	0.247	0.247	0.293
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.575	0.625	0.345	0.506	0.630	0.641	0.511	0.473	0.509
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.288	0.404	0.338	0.561	0.593	0.454	0.477	0.443	0.445
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.400	0.383	0.067	0.173	0.210	0.355	0.308	0.202	0.293
50 Burnham Avenue, Wolf Lake	ND	ND	0.150	0.200	0.082	0.117	0.065	0.165	0.065	0.148	0.100
55 130th Street, Calumet River	ND	ND	0.150	0.270	0.103	0.183	0.234	0.339	0.479	0.257	0.244
86 Burnham Avenue, Grand Calumet River	ND	ND	1.275	1.210	1.404	1.010	1.108	1.567	1.217	2.100	1.194
56 Indiana Avenue, Little Calumet River	ND	ND	0.233	0.380	0.288	0.650	0.861	0.701	0.587	0.684	0.576
76 Halsted Street, Little Calumet River	ND	ND	0.200	0.282	0.222	0.381	0.698	0.390	0.380	0.321	0.382
52 Wentworth Avenue, Little Calumet River	ND	ND	1.525	3.360	3.213	1.980	1.189	1.842	1.676	1.388	1.469
54 Joe Orr Road, Thorn Creek	ND	ND	0.625	1.760	1.170	0.739	0.332	0.489	0.317	2.309	0.681
97 170th Street, Thorn Creek	ND	ND	1.050	3.330	2.409	1.223	0.825	1.459	1.217	1.516	1.468
57 Ashland Avenue, Little Calumet River	ND	ND	1.150	2.440	2.236	1.307	0.785	1.423	1.126	1.514	1.678
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.375	1.282	0.906	0.606	0.549	0.757	0.461	0.548	0.543
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.500	0.909	0.665	0.643	0.782	0.830	0.780	0.524	0.664
43 Route 83, Calumet-Sag Channel	ND	ND	0.450	0.855	0.430	0.784	0.578	0.706	0.722	0.514	0.505
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.525	0.800	0.796	0.750	0.959	0.672	1.105	1.031	0.619
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.275	0.358	0.446	0.334	0.607	0.363	0.333	0.383	0.423
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.913	0.807	1.035	0.879	1.017	1.009	0.863
111 Arlington Drive, West Branch DuPage River	ND	ND	1.000	0.717	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.933	1.100	1.280	1.223	1.264	1.286	1.306	1.534	0.869
80 Arlington Heights Road, Salt Creek	ND	ND	0.275	0.391	0.298	0.538	0.333	0.447	0.397	0.344	0.420
18 Devon Avenue, Salt Creek	ND	ND	0.350	0.391	0.374	0.619	0.427	0.533	0.488	0.421	0.539
24 Wolf Road, Salt Creek	ND	ND	0.400	0.655	0.785	0.909	0.929	1.071	1.287	0.875	0.732
109 Brookfield Avenue, Salt Creek	ND	ND	0.325	0.645	0.716	0.934	0.908	0.941	1.371	0.903	0.701
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.500	1.100	0.780	0.770	1.844	0.960	1.375	0.866	1.061
78 Wille Road, Higgins Creek	ND	ND	0.175	0.200	0.078	0.137	0.236	0.177	0.153	0.160	0.184
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.600	0.800	1.391	1.227	1.054	1.261	1.086	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.600	0.582	0.682	0.976	0.788	0.863	0.920	0.892	0.757
17 Oakton Street, Des Plaines River	ND	ND	0.525	0.618	0.525	1.019	0.902	0.812	0.875	0.722	0.726
19 Belmont Avenue, Des Plaines River	ND	ND	0.450	0.609	0.681	0.971	0.975	0.883	0.892	0.682	0.673
20 Roosevelt Road, Des Plaines River	ND	ND	0.500	0.582	0.698	1.030	0.979	0.865	0.871	0.766	0.688
22 Ogden Avenue, Des Plaines River	ND	ND	0.425	0.591	0.773	1.055	0.916	1.081	1.161	0.850	0.710
23 Willow Springs Road, Des Plaines River	ND	ND	0.400	0.636	0.634	0.992	0.872	0.880	0.932	0.727	0.702
29 Stephen Street, Des Plaines River	ND	ND	0.400	0.609	0.715	1.074	0.796	0.849	0.907	0.756	0.805
91 Material Service Road, Des Plaines River	ND	ND	0.450	0.700	0.713	0.862	0.762	0.765	0.966	0.790	0.810

ND = No Data.

TABLE AII-49: TOTAL LEAD MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.022	0.010	0.005	0.007	0.006	0.006
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.012	0.004	0.005	0.006	0.005	0.007
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.020	0.030	0.000	0.009	0.004	0.006	0.007	0.004	0.006
104 Glenview Road, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.019	0.007	0.005	0.008	0.003	0.006
32 Lake-Cook Road, Skokie River	ND	ND	0.020	0.030	0.000	0.011	0.006	0.007	0.007	0.003	0.008
105 Frontage Road, Skokie River	ND	ND	0.020	0.030	0.000	0.018	0.005	0.006	0.006	0.003	0.007
34 Dempster Street, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.016	0.007	0.005	0.007	0.005	0.006
96 Albany Avenue, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.018	0.009	0.006	0.007	0.005	0.008
35 Central Street, North Shore Channel	ND	ND	0.020	0.030	0.000	0.009	0.004	0.002	0.003	0.002	0.005
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.020	0.030	0.000	0.010	0.007	0.005	0.004	0.004	0.004
36 Touhy Avenue, North Shore Channel	ND	ND	0.020	0.030	0.000	0.020	0.005	0.004	0.004	0.003	0.005
101 Foster Avenue, North Shore Channel	ND	ND	0.020	0.030	0.000	0.017	0.006	0.004	0.004	0.003	0.005
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.016	0.007	0.005	0.005	0.003	0.006
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.016	0.006	0.005	0.005	0.004	0.006
46 Grand Avenue, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.016	0.007	0.008	0.007	0.005	0.008
74 Lake Shore Drive, Chicago River	ND	ND	0.020	0.030	0.000	0.003	0.006	0.008	0.004	0.004	0.006
100 Wells Street, Chicago River	ND	ND	0.020	0.030	0.000	0.004	0.006	0.006	0.010	0.004	0.005
39 Madison Street, South Branch Chicago River	ND	ND	0.020	0.030	0.000	0.004	0.007	0.010	0.010	0.006	0.007
108 Loomis Street, South Branch Chicago River	ND	ND	0.020	0.030	0.001	0.013	0.009	0.010	0.011	0.006	0.007
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.020	0.030	0.002	0.006	0.006	0.008	0.007	0.007	0.008
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.001	0.007	0.008	0.009	0.011	0.007	0.009
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.001	0.011	0.008	0.010	0.011	0.007	0.009
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.000	0.010	0.007	0.008	0.008	0.004	0.006
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.001	0.013	0.009	0.008	0.007	0.005	0.007
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.000	0.013	0.007	0.009	0.008	0.007	0.009
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.000	0.013	0.008	0.006	0.007	0.006	0.007
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.020	0.030	0.000	0.000	0.004	0.010	0.004	0.003	0.005
50 Burnham Avenue, Wolf Lake	ND	ND	0.020	0.030	0.000	0.002	0.004	0.007	0.003	0.004	0.003
55 130th Street, Calumet River	ND	ND	0.020	0.030	0.000	0.000	0.002	0.006	0.008	0.004	0.005
86 Burnham Avenue, Grand Calumet River	ND	ND	0.020	0.030	0.000	0.004	0.007	0.012	0.013	0.034	0.015
56 Indiana Avenue, Little Calumet River	ND	ND	0.020	0.030	0.002	0.000	0.005	0.027	0.006	0.006	0.006
76 Halsted Street, Little Calumet River	ND	ND	0.020	0.030	0.000	0.009	0.010	0.042	0.006	0.005	0.007
52 Wentworth Avenue, Little Calumet River	ND	ND	0.020	0.030	0.000	0.006	0.005	0.005	0.006	0.005	0.007
54 Joe Orr Road, Thorn Creek	ND	ND	0.020	0.031	0.000	0.004	0.002	0.004	0.004	0.016	0.005
97 170th Street, Thorn Creek	ND	ND	0.020	0.030	0.000	0.004	0.004	0.007	0.006	0.007	0.010
57 Ashland Avenue, Little Calumet River	ND	ND	0.020	0.030	0.002	0.002	0.005	0.007	0.006	0.008	0.011
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.020	0.030	0.002	0.008	0.006	0.007	0.006	0.010	0.007
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.020	0.030	0.000	0.002	0.005	0.006	0.007	0.005	0.009
43 Route 83, Calumet-Sag Channel	ND	ND	0.020	0.030	0.001	0.003	0.004	0.006	0.008	0.008	0.007
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.020	0.030	0.000	0.013	0.007	0.003	0.004	0.003	0.008
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.020	0.030	0.000	0.015	0.006	0.004	0.005	0.003	0.010
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.014	0.007	0.004	0.005	0.012	0.008
111 Arlington Drive, West Branch DuPage River	ND	ND	0.020	0.030	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.020	0.030	0.000	0.002	0.005	0.005	0.006	0.005	0.009
80 Arlington Heights Road, Salt Creek	ND	ND	0.020	0.030	0.000	0.015	0.007	0.003	0.005	0.003	0.007
18 Devon Avenue, Salt Creek	ND	ND	0.020	0.030	0.000	0.011	0.013	0.003	0.004	0.004	0.006
24 Wolf Road, Salt Creek	ND	ND	0.020	0.030	0.000	0.014	0.006	0.006	0.007	0.004	0.008
109 Brookfield Avenue, Salt Creek	ND	ND	0.020	0.030	0.000	0.015	0.007	0.006	0.007	0.005	0.009
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.020	0.030	0.000	0.000	0.006	0.009	0.008	0.004	0.011
78 Wille Road, Higgins Creek	ND	ND	0.020	0.030	0.000	0.016	0.007	0.004	0.004	0.004	0.007
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.020	0.030	0.002	0.019	0.008	0.006	0.005	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.020	0.030	0.000	0.014	0.007	0.005	0.004	0.003	0.022
17 Oakton Street, Des Plaines River	ND	ND	0.020	0.030	0.000	0.012	0.007	0.005	0.005	0.004	0.007
19 Belmont Avenue, Des Plaines River	ND	ND	0.020	0.030	0.000	0.015	0.007	0.005	0.006	0.005	0.008
20 Roosevelt Road, Des Plaines River	ND	ND	0.020	0.030	0.000	0.014	0.007	0.005	0.007	0.005	0.008
22 Ogden Avenue, Des Plaines River	ND	ND	0.020	0.030	0.000	0.012	0.008	0.006	0.008	0.005	0.008
23 Willow Springs Road, Des Plaines River	ND	ND	0.020	0.030	0.000	0.012	0.008	0.006	0.007	0.005	0.012
29 Stephen Street, Des Plaines River	ND	ND	0.020	0.030	0.000	0.012	0.008	0.005	0.006	0.005	0.009
91 Material Service Road, Des Plaines River	ND	ND	0.020	0.030	0.000	0.014	0.007	0.007	0.007	0.005	0.009

ND = No Data.

TABLE AII-50: TOTAL NICKEL MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.005	0.008	0.002	0.000	0.000	0.003	0.003	0.003	0.003
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.008	0.001	0.001	0.000	0.001	0.002	0.003	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.002
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.003
32 Lake-Cook Road, Skokie River	ND	ND	0.005	0.008	0.002	0.000	0.000	0.001	0.002	0.001	0.001
105 Frontage Road, Skokie River	ND	ND	0.005	0.011	0.001	0.000	0.000	0.001	0.001	0.001	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.002	0.001
96 Albany Avenue, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.004
35 Central Street, North Shore Channel	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.010	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.001
36 Touhy Avenue, North Shore Channel	ND	ND	0.011	0.008	0.000	0.000	0.000	0.001	0.002	0.002	0.002
101 Foster Avenue, North Shore Channel	ND	ND	0.010	0.008	0.000	0.001	0.000	0.002	0.002	0.003	0.002
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.003	0.003
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.011	0.013	0.000	0.001	0.000	0.002	0.002	0.003	0.002
46 Grand Avenue, North Branch Chicago River	ND	ND	0.012	0.008	0.000	0.002	0.000	0.004	0.004	0.004	0.004
74 Lake Shore Drive, Chicago River	ND	ND	0.006	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001
100 Wells Street, Chicago River	ND	ND	0.007	0.008	0.001	0.000	0.000	0.002	0.001	0.002	0.002
39 Madison Street, South Branch Chicago River	ND	ND	0.008	0.008	0.000	0.000	0.000	0.012	0.003	0.004	0.003
108 Loomis Street, South Branch Chicago River	ND	ND	0.010	0.008	0.000	0.000	0.000	0.004	0.003	0.004	0.003
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.008	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.008	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.016	0.008	0.000	0.000	0.000	0.003	0.003	0.004	0.003
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.009	0.008	0.001	0.000	0.000	0.004	0.005	0.006	0.005
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.010	0.027	0.001	0.000	0.000	0.006	0.005	0.006	0.007
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.008	0.016	0.000	0.000	0.000	0.005	0.004	0.006	0.006
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.007	0.009	0.000	0.000	0.000	0.004	0.005	0.006	0.005
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.009	0.000	0.000	0.000	0.001	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.008	0.002	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.001	0.001
86 Burnham Avenue, Grand Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.005	0.004
56 Indiana Avenue, Little Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.004	0.002	0.002	0.002
76 Halsted Street, Little Calumet River	ND	ND	0.006	0.008	0.000	0.000	0.000	0.003	0.002	0.004	0.002
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.008	0.002	0.000	0.000	0.002	0.002	0.003	0.003
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.004	0.001
97 170th Street, Thorn Creek	ND	ND	0.006	0.010	0.004	0.000	0.000	0.003	0.004	0.007	0.005
57 Ashland Avenue, Little Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.004	0.003	0.005	0.004
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.002	0.003	0.003
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.003	0.003
43 Route 83, Calumet-Sag Channel	ND	ND	0.005	0.008	0.001	0.000	0.000	0.003	0.003	0.004	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.008	0.000	0.000	0.002	0.000	0.001	0.002	0.000
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.006	0.009	0.001	0.003	0.001	0.002	0.003	0.003	0.001
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.004	0.000	0.003	0.004	0.004	0.002
111 Arlington Drive, West Branch DuPage River	ND	ND	0.005	0.008	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.004	0.002
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.008	0.003	0.000	0.000	0.003	0.002	0.003	0.002
18 Devon Avenue, Salt Creek	ND	ND	0.005	0.008	0.004	0.000	0.000	0.003	0.002	0.003	0.002
24 Wolf Road, Salt Creek	ND	ND	0.006	0.008	0.003	0.000	0.000	0.004	0.004	0.005	0.005
109 Brookfield Avenue, Salt Creek	ND	ND	0.006	0.012	0.002	0.000	0.000	0.004	0.004	0.006	0.005
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.002	0.002	0.002
78 Wille Road, Higgins Creek	ND	ND	0.007	0.008	0.004	0.000	0.002	0.007	0.007	0.014	0.006
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.006	0.008	0.000	0.001	0.000	0.002	0.002	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.006	0.002	0.002	0.005	0.003
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.008	0.000	0.002	0.000	0.001	0.002	0.004	0.002
19 Belmont Avenue, Des Plaines River	ND	ND	0.005	0.010	0.000	0.002	0.000	0.003	0.003	0.006	0.003
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.002	0.003	0.006	0.003
22 Ogden Avenue, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.004	0.006	0.003
23 Willow Springs Road, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.006	0.003
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.003	0.003	0.005	0.003
91 Material Service Road, Des Plaines River	ND	ND	0.006	0.008	0.000	0.500	0.000	0.003	0.003	0.005	0.004

ND = No Data.

TABLE AII-51: TOTAL MANGANESE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.069	0.082	0.094	0.080	0.089	0.075	0.087	0.083	0.097
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.096	0.069	0.066	0.076	0.069	0.074	0.068	0.087	0.067
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.076	0.081	0.171	0.078	0.084	0.148	0.084	0.128	0.092
104 Glenview Road, North Branch Chicago River	ND	ND	0.059	0.081	0.072	0.087	0.073	0.062	0.072	0.080	0.060
32 Lake-Cook Road, Skokie River	ND	ND	0.103	0.096	0.120	0.085	0.095	0.120	0.086	0.124	0.137
105 Frontage Road, Skokie River	ND	ND	0.039	0.054	0.069	0.056	0.059	0.055	0.038	0.045	0.086
34 Dempster Street, North Branch Chicago River	ND	ND	0.076	0.081	0.069	0.067	0.072	0.068	0.064	0.072	0.065
96 Albany Avenue, North Branch Chicago River	0.068	0.068	0.052	0.069	0.058	0.060	0.085	0.068	0.060	0.059	0.062
35 Central Street, North Shore Channel	ND	ND	0.022	0.022	0.020	0.019	0.037	0.015	0.019	0.045	0.017
112 Dempster Street, North Shore Channel	0.021	0.039	0.041	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.039	0.035	0.041	0.024	0.032	0.021	0.024	0.021	0.025
36 Touhy Avenue, North Shore Channel	0.027	0.026	0.032	0.030	0.027	0.016	0.023	0.019	0.014	0.021	0.019
101 Foster Avenue, North Shore Channel	ND	ND	0.027	0.030	0.023	0.024	0.024	0.020	0.015	0.021	0.023
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.035	0.030	0.033	0.028	0.033	0.026	0.022	0.026	0.027
73 Diversey Parkway, North Branch Chicago River	0.045	0.056	0.037	0.092	0.034	0.034	0.043	0.029	0.026	0.026	0.027
46 Grand Avenue, North Branch Chicago River	ND	ND	0.046	0.041	0.032	0.036	0.045	0.054	0.031	0.033	0.037
74 Lake Shore Drive, Chicago River	ND	ND	0.021	0.025	0.017	0.013	0.017	0.018	0.008	0.012	0.018
100 Wells Street, Chicago River	0.029	0.037	0.039	0.058	0.019	0.018	0.037	0.024	0.013	0.020	0.022
39 Madison Street, South Branch Chicago River	ND	ND	0.054	0.049	0.036	0.026	0.038	0.030	0.022	0.069	0.028
108 Loomis Street, South Branch Chicago River	0.044	0.032	0.040	0.118	0.036	0.032	0.048	0.042	0.027	0.036	0.028
99 Archer Avenue, South Fork South Branch Chicago River	0.045	0.052	0.049	0.044	0.034	0.046	0.049	0.033	0.026	0.038	0.034
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.042	0.039	0.034	0.030	0.045	0.032	0.029	0.031	0.029
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.044	0.035	0.051	0.040	0.033	0.029	0.037	0.034	0.029	0.029	0.029
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.037	0.028	0.026	0.037	0.039	0.034	0.029	0.031	0.031	0.019	0.019
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.032	0.038	0.024	0.022	0.027	0.023	0.020	0.021	0.022
48 Stephen Street, Chicago Sanitary and Ship Canal	0.036	0.039	0.047	0.045	0.065	0.041	0.036	0.032	0.039	0.039	0.042
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.049	0.048	0.041	0.090	0.042	0.041	0.066	0.039	0.036	0.037	0.047
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.022	0.033	0.023	0.030	0.018	0.023	0.017	0.016	0.053
50 Burnham Avenue, Wolf Lake	ND	ND	0.058	0.045	0.058	0.047	0.052	0.081	0.029	0.054	0.040
55 130th Street, Calumet River	ND	ND	0.021	0.035	0.026	0.031	0.050	0.028	0.040	0.033	0.030
86 Burnham Avenue, Grand Calumet River	0.158	0.345	0.238	0.228	0.221	0.088	0.169	0.176	0.144	0.093	0.096
56 Indiana Avenue, Little Calumet River	0.023	0.031	0.021	0.037	0.085	0.052	0.059	0.046	0.029	0.037	0.028
76 Halsted Street, Little Calumet River	0.044	0.043	0.040	0.043	0.049	0.037	0.050	0.078	0.041	0.037	0.036
52 Wentworth Avenue, Little Calumet River	ND	ND	0.111	0.137	0.147	0.119	0.121	0.131	0.112	0.115	0.138
54 Joe Orr Road, Thorn Creek	ND	ND	0.074	0.089	0.073	0.062	0.064	0.066	0.050	0.131	0.073
97 170th Street, Thorn Creek	ND	ND	0.088	0.126	0.115	0.092	0.081	0.097	0.080	0.095	0.111
57 Ashland Avenue, Little Calumet River	0.126	0.072	0.094	0.109	0.108	0.116	0.085	0.114	0.087	0.123	0.128
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.052	0.069	0.081	0.053	0.058	0.061	0.048	0.052	0.048
59 Cicero Avenue, Calumet-Sag Channel	0.059	0.054	0.046	0.063	0.064	0.049	0.100	0.056	0.056	0.050	0.071
43 Route 83, Calumet-Sag Channel	0.137	0.045	0.054	0.067	0.065	0.053	0.065	0.057	0.054	0.065	0.059
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.114	0.076	0.105	0.076	0.126	0.080	0.080	0.147	0.097
110 Springinguth Road, West Branch DuPage River	0.082	0.134	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.049	0.035	0.066	0.035	0.059	0.036	0.033	0.044	0.044
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.101	0.099	0.075	0.073	0.065	0.087	0.071
111 Arlington Drive, West Branch DuPage River	0.057	0.054	0.066	0.061	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.083	0.109	0.081	0.120	0.112	0.104	0.119	0.110	0.089	0.138	0.124
80 Arlington Heights Road, Salt Creek	ND	ND	0.054	0.056	0.061	0.046	0.068	0.059	0.046	0.063	0.057
18 Devon Avenue, Salt Creek	0.050	0.054	0.050	0.052	0.079	0.056	0.071	0.057	0.048	0.053	0.052
24 Wolf Road, Salt Creek	ND	ND	0.067	0.055	0.061	0.061	0.065	0.065	0.061	0.059	0.055
109 Brookfield Avenue, Salt Creek	0.052	0.076	0.060	0.058	0.066	0.059	0.069	0.059	0.061	0.065	0.055
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.116	0.103	0.151	0.098	0.090	0.092	0.149	0.112	0.107	0.106	0.125
78 Wille Road, Higgins Creek	0.018	0.040	0.026	0.021	0.070	0.032	0.060	0.040	0.030	0.023	0.025
12 Lake-Cook Road, Buffalo Creek	0.035	ND	0.242	0.093	0.143	0.117	0.145	0.142	0.107	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.066	0.061	0.084	0.064	0.079	0.067	0.067	0.086	0.084
17 Oakton Street, Des Plaines River	ND	ND	0.051	0.065	0.064	0.068	0.084	0.065	0.062	0.080	0.067
19 Belmont Avenue, Des Plaines River	0.057	0.057	0.046	0.094	0.084	0.062	0.075	0.060	0.061	0.079	0.061
20 Roosevelt Road, Des Plaines River	ND	ND	0.054	0.064	0.066	0.062	0.082	0.061	0.061	0.073	0.062
22 Ogden Avenue, Des Plaines River	0.044	0.090	0.066	0.054	0.059	0.051	0.074	0.076	0.058	0.068	0.058
23 Willow Springs Road, Des Plaines River	0.053	0.053	0.053	0.063	0.058	0.055	0.068	0.050	0.054	0.064	0.075
29 Stephen Street, Des Plaines River	ND	ND	0.079	0.075	0.059	0.058	0.085	0.055	0.051	0.066	0.059
91 Material Service Road, Des Plaines River	0.038	0.058	0.059	0.080	0.060	0.054	0.068	0.058	0.054	0.068	0.065

ND = No Data.

**TABLE AII-52: TOTAL MERCURY MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.015	0.000	0.000	0.179
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.039	0.080
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.012	0.013	0.121
104 Glenview Road, North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.024	0.034	0.111
32 Lake-Cook Road, Skokie River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.022	0.029	0.113
105 Frontage Road, Skokie River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.011	0.062	0.160
34 Dempster Street, North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.011	0.010	0.034	0.125
96 Albany Avenue, North Branch Chicago River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.027	0.006	0.064	0.028
35 Central Street, North Shore Channel	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.007	0.016	0.000
112 Dempster Street, North Shore Channel	0.200	0.200	0.200	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.009	0.068	0.076
36 Touhy Avenue, North Shore Channel	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.011	0.040	0.077
101 Foster Avenue, North Shore Channel	ND	ND	0.200	0.200	0.000	0.000	0.000	0.008	0.011	0.046	0.067
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.024	0.041	0.095
73 Diversey Parkway, North Branch Chicago River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.011	0.022	0.016
46 Grand Avenue, North Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.017	0.009	0.018	0.039
74 Lake Shore Drive, Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.015	0.005	0.000	0.122
100 Wells Street, Chicago River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.012	0.016	0.030	0.061
39 Madison Street, South Branch Chicago River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.016	0.011	0.021
108 Loomis Street, South Branch Chicago River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.013	0.024	0.017	0.034
99 Archer Avenue, South Fork South Branch Chicago River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.029	0.020	0.053
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.200	0.200	0.000	0.000	0.000	0.004	0.023	0.007	0.021
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.022	0.029	0.049
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.017	0.000	0.022
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.200	0.200	0.000	0.000	0.000	0.018	0.016	0.010	0.087
48 Stephen Street, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.018	0.016	0.093
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.010	0.015	0.017	0.079
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.008	0.000	0.110
50 Burnham Avenue, Wolf Lake	ND	ND	0.200	0.200	0.000	0.000	0.000	0.010	0.015	0.005	0.020
55 130th Street, Calumet River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.017	0.051
86 Burnham Avenue, Grand Calumet River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.049	0.034	0.148	0.068
56 Indiana Avenue, Little Calumet River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.019	0.000
76 Halsted Street, Little Calumet River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.021	0.018	0.029
52 Wentworth Avenue, Little Calumet River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.015	0.036	0.017
54 Joe Orr Road, Thorn Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.033	0.000
97 170th Street, Thorn Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.015	0.031	0.025
57 Ashland Avenue, Little Calumet River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.012	0.015	0.044	0.052
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.015	0.010	0.032
59 Cicero Avenue, Calumet-Sag Channel	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.018	0.019	0.050
43 Route 83, Calumet-Sag Channel	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.010	0.023	0.017
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.019	0.008	0.045	0.051
110 Springinguth Road, West Branch DuPage River	0.200	0.200	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.008	0.007	0.042
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.015	0.009	0.013	0.044
111 Arlington Drive, West Branch DuPage River	0.200	0.200	0.200	0.200	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.200	0.213	0.209	0.200	0.000	0.000	0.000	0.012	0.000	0.008	0.014
80 Arlington Heights Road, Salt Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.000	0.013	0.023	0.025
18 Devon Avenue, Salt Creek	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.018	0.044	0.058
24 Wolf Road, Salt Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.013	0.011	0.027
109 Brookfield Avenue, Salt Creek	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.005	0.013	0.000	0.075
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.010	0.000	0.000	0.040
78 Wille Road, Higgins Creek	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.013	0.013	0.032
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.200	0.200	0.000	0.000	0.000	0.007	0.010	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.006	0.020	0.014	0.035
17 Oakton Street, Des Plaines River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.009	0.013	0.017	0.025
19 Belmont Avenue, Des Plaines River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.000	0.014	0.000	0.037
20 Roosevelt Road, Des Plaines River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.005	0.013	0.013	0.032
22 Ogden Avenue, Des Plaines River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.006	0.018	0.013	0.050
23 Willow Springs Road, Des Plaines River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.013	0.013	0.016
29 Stephen Street, Des Plaines River	ND	ND	0.200	0.200	0.000	0.000	0.000	0.013	0.047	0.011	0.037
91 Material Service Road, Des Plaines River	0.200	0.200	0.200	0.200	0.000	0.000	0.000	0.007	0.012	0.021	0.017

ND = No Data.

TABLE AII-53: LOW LEVEL MERCURY MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (ng/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	3.5	3.6	7.0	6.9	3.7	2.4	5.6	ND	ND
103 Golf Road, West Fork North Branch Chicago River	ND	ND	6.7	3.3	9.7	11.0	6.9	3.6	9.5	ND	ND
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	3.8	2.1	1.9	3.2	2.9	2.0	3.6	ND	ND
104 Glenview Road, North Branch Chicago River	ND	ND	3.8	3.3	3.0	3.8	3.9	1.8	6.8	ND	ND
32 Lake-Cook Road, Skokie River	ND	ND	4.0	2.8	5.2	6.5	6.3	2.8	6.2	ND	ND
105 Frontage Road, Skokie River	ND	ND	3.8	2.1	2.4	3.7	3.6	1.4	3.1	ND	ND
34 Dempster Street, North Branch Chicago River	ND	ND	5.7	2.6	3.3	5.3	5.5	2.9	5.8	ND	ND
96 Albany Avenue, North Branch Chicago River	5.1	11.0	5.9	2.6	4.3	6.3	8.0	3.4	5.7	ND	ND
35 Central Street, North Shore Channel	ND	ND	4.6	2.2	1.8	2.3	2.3	0.7	1.6	ND	ND
112 Dempster Street, North Shore Channel	4.0	10.0	7.4	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	4.5	3.0	7.2	4.9	5.4	2.7	4.7	ND	ND
36 Touhy Avenue, North Shore Channel	ND	ND	5.0	ND	ND	ND	ND	ND	ND	ND	ND
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	4.4	ND	ND	ND	ND	ND
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	4.5	ND	ND	ND	ND	ND
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	5.9	ND	ND	ND	ND	ND
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	12.0	ND	ND	ND	ND	ND
74 Lake Shore Drive, Chicago River	ND	ND	3.7	2.1	1.0	1.7	1.9	1.4	1.3	ND	ND
100 Wells Street, Chicago River	9.0	12.5	8.3	8.5	2.2	2.9	2.7	1.6	2.1	ND	ND
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	1.1	ND	ND	ND	ND	ND
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	3.1	ND	ND	ND	ND	ND
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	6.1	0.0	ND	ND	ND	ND
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	4.4	2.5	0.6	2.1	1.4	0.7	3.1	ND	ND
50 Burnham Avenue, Wolf Lake	ND	ND	3.9	1.9	0.9	1.9	1.6	0.2	1.8	ND	ND
55 130th Street, Calumet River	ND	ND	3.9	2.5	2.2	2.1	1.7	1.6	4.2	ND	ND
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
52 Wentworth Avenue, Little Calumet River	ND	ND	3.9	7.1	6.4	8.3	2.7	3.0	6.1	ND	ND
54 Joe Orr Road, Thorn Creek	ND	ND	5.2	4.6	3.1	4.9	1.6	2.8	2.5	ND	ND
97 170th Street, Thorn Creek	ND	ND	4.4	13.0	15.1	8.3	5.4	5.7	10.5	ND	ND
57 Ashland Avenue, Little Calumet River	3.7	10.0	6.8	7.3	9.2	8.1	3.6	4.2	7.6	ND	ND
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	1.8	ND	ND	ND	ND	ND
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	4.6	ND	ND	ND	ND	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	3.9	2.7	1.5	2.0	1.5	2.6	2.9	ND	ND
110 Springinsguth Road, West Branch DuPage River	4.4	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	5.5	3.1	5.1	3.4	3.7	1.6	4.4	ND	ND
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	3.0	3.3	2.6	2.3	4.0	ND	ND
111 Arlington Drive, West Branch DuPage River	5.3	10.0	4.9	2.9	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	10.0	10.0	5.9	4.6	3.3	3.4	2.5	1.5	4.1	ND	ND
80 Arlington Heights Road, Salt Creek	ND	ND	3.9	2.5	2.5	2.5	1.6	0.5	2.3	ND	ND
18 Devon Avenue, Salt Creek	5.3	9.8	5.5	3.2	2.1	2.7	1.4	0.9	2.2	ND	ND
24 Wolf Road, Salt Creek	ND	ND	5.0	4.4	4.8	4.9	3.1	2.7	6.2	ND	ND
109 Brookfield Avenue, Salt Creek	3.5	10.0	7.1	2.5	3.9	7.3	3.9	2.5	8.6	ND	ND
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	6.1	10.0	5.9	4.7	5.2	5.8	4.6	2.2	7.8	ND	ND
78 Wille Road, Higgins Creek	5.7	10.0	6.3	3.5	0.8	2.3	1.7	0.7	2.0	ND	ND
12 Lake-Cook Road, Buffalo Creek	ND	ND	3.3	3.9	2.3	4.0	2.1	2.1	3.3	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	4.4	3.3	1.9	2.8	1.5	1.4	3.1	ND	ND
17 Oakton Street, Des Plaines River	ND	ND	3.6	3.3	2.4	3.5	2.2	1.7	3.6	ND	ND
19 Belmont Avenue, Des Plaines River	4.6	9.8	5.2	3.0	2.8	3.4	2.7	1.8	3.9	ND	ND
20 Roosevelt Road, Des Plaines River	ND	ND	4.4	3.4	3.7	4.4	2.9	2.0	4.2	ND	ND
22 Ogden Avenue, Des Plaines River	4.0	9.8	8.7	2.8	3.7	5.5	3.3	2.5	6.9	ND	ND
23 Willow Springs Road, Des Plaines River	3.6	10.2	5.9	2.4	3.6	5.2	3.4	2.4	5.3	ND	ND
29 Stephen Street, Des Plaines River	ND	ND	4.7	3.0	4.2	5.1	3.3	2.1	6.4	ND	ND
91 Material Service Road, Des Plaines River	3.2	9.8	5.4	3.4	3.9	4.9	3.0	2.6	6.2	ND	ND

ND = No Data.

TABLE AII-54: TOTAL ZINC MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.040	0.060	0.013	0.027	0.040	0.030	0.045	0.039	0.052
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.023	0.060	0.006	0.012	0.014	0.022	0.026	0.028	0.032
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.010	0.060	0.002	0.005	0.017	0.019	0.029	0.019	0.021
104 Glenview Road, North Branch Chicago River	ND	ND	0.025	0.062	0.021	0.053	0.028	0.039	0.049	0.038	0.033
32 Lake-Cook Road, Skokie River	ND	ND	0.017	0.065	0.007	0.009	0.021	0.021	0.036	0.027	0.021
105 Frontage Road, Skokie River	ND	ND	0.020	0.060	0.015	0.023	0.021	0.026	0.029	0.035	0.042
34 Dempster Street, North Branch Chicago River	ND	ND	0.023	0.060	0.012	0.015	0.028	0.021	0.025	0.031	0.034
96 Albany Avenue, North Branch Chicago River	ND	ND	0.020	0.060	0.007	0.018	0.020	0.023	0.024	0.030	0.032
35 Central Street, North Shore Channel	ND	ND	0.010	0.060	0.002	0.009	0.004	0.010	0.011	0.019	0.020
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.035	0.060	0.012	0.013	0.018	0.030	0.027	0.030	0.026
36 Touhy Avenue, North Shore Channel	ND	ND	0.035	0.060	0.020	0.027	0.034	0.038	0.035	0.042	0.040
101 Foster Avenue, North Shore Channel	ND	ND	0.030	0.060	0.019	0.026	0.033	0.039	0.035	0.039	0.047
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.033	0.060	0.018	0.025	0.028	0.036	0.032	0.039	0.042
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.030	0.063	0.020	0.025	0.030	0.036	0.032	0.037	0.036
46 Grand Avenue, North Branch Chicago River	ND	ND	0.038	0.060	0.019	0.029	0.033	0.040	0.041	0.049	0.051
74 Lake Shore Drive, Chicago River	ND	ND	0.020	0.060	0.001	0.007	0.010	0.030	0.018	0.029	0.023
100 Wells Street, Chicago River	ND	ND	0.033	0.060	0.013	0.012	0.018	0.026	0.021	0.030	0.028
39 Madison Street, South Branch Chicago River	ND	ND	0.043	0.060	0.013	0.028	0.031	0.046	0.029	0.043	0.046
108 Loomis Street, South Branch Chicago River	ND	ND	0.045	0.060	0.011	0.030	0.037	0.043	0.033	0.038	0.042
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.035	0.060	0.010	0.023	0.033	0.032	0.028	0.039	0.040
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.038	0.060	0.015	0.030	0.036	0.043	0.042	0.045	0.047
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.048	0.062	0.014	0.026	0.034	0.046	0.035	0.040	0.042
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.033	0.060	0.020	0.029	0.035	0.046	0.035	0.041	0.037
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.030	0.060	0.015	0.028	0.031	0.045	0.032	0.038	0.045
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.035	0.060	0.015	0.028	0.033	0.045	0.033	0.044	0.056
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.028	0.060	0.016	0.029	0.035	0.038	0.038	0.049	0.047
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.010	0.060	0.000	0.008	0.016	0.021	0.016	0.014	0.019
50 Burnham Avenue, Wolf Lake	ND	ND	0.010	0.060	0.003	0.009	0.007	0.047	0.008	0.015	0.016
55 130th Street, Calumet River	ND	ND	0.010	0.060	0.004	0.005	0.008	0.019	0.053	0.022	0.026
86 Burnham Avenue, Grand Calumet River	ND	ND	0.023	0.060	0.021	0.049	0.039	0.053	0.055	0.154	0.062
56 Indiana Avenue, Little Calumet River	ND	ND	0.013	0.060	0.007	0.015	0.025	0.033	0.021	0.030	0.032
76 Halsted Street, Little Calumet River	ND	ND	0.028	0.073	0.016	0.032	0.059	0.053	0.041	0.051	0.052
52 Wentworth Avenue, Little Calumet River	ND	ND	0.020	0.060	0.014	0.027	0.022	0.026	0.027	0.035	0.047
54 Joe Orr Road, Thorn Creek	ND	ND	0.033	0.063	0.027	0.042	0.046	0.050	0.050	0.103	0.059
97 170th Street, Thorn Creek	ND	ND	0.023	0.066	0.025	0.029	0.031	0.038	0.031	0.046	0.060
57 Ashland Avenue, Little Calumet River	ND	ND	0.018	0.060	0.018	0.033	0.027	0.035	0.027	0.059	0.052
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.028	0.062	0.015	0.033	0.059	0.048	0.040	0.069	0.060
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.025	0.064	0.012	0.024	0.038	0.032	0.037	0.044	0.055
43 Route 83, Calumet-Sag Channel	ND	ND	0.025	0.060	0.010	0.026	0.030	0.035	0.034	0.055	0.046
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.013	0.060	0.002	0.003	0.014	0.013	0.014	0.035	0.017
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.040	0.060	0.030	0.038	0.045	0.042	0.039	0.051	0.062
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.032	0.035	0.038	0.034	0.044	0.051	0.048
111 Arlington Drive, West Branch DuPage River	ND	ND	0.030	0.060	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.010	0.060	0.004	0.008	0.010	0.020	0.015	0.028	0.022
80 Arlington Heights Road, Salt Creek	ND	ND	0.018	0.060	0.011	0.023	0.019	0.036	0.025	0.039	0.078
18 Devon Avenue, Salt Creek	ND	ND	0.018	0.060	0.011	0.023	0.020	0.024	0.024	0.042	0.034
24 Wolf Road, Salt Creek	ND	ND	0.025	0.060	0.016	0.030	0.035	0.034	0.040	0.049	0.050
109 Brookfield Avenue, Salt Creek	ND	ND	0.030	0.060	0.016	0.028	0.032	0.032	0.040	0.050	0.040
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.010	0.060	0.020	0.021	0.051	0.035	0.042	0.041	0.053
78 Wille Road, Higgins Creek	ND	ND	0.040	0.060	0.026	0.036	0.050	0.047	0.049	0.076	0.066
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.015	0.060	0.014	0.017	0.016	0.019	0.017	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.010	0.060	0.007	0.019	0.032	0.025	0.024	0.036	0.034
17 Oakton Street, Des Plaines River	ND	ND	0.010	0.060	0.003	0.016	0.019	0.023	0.024	0.037	0.032
19 Belmont Avenue, Des Plaines River	ND	ND	0.020	0.061	0.012	0.020	0.028	0.029	0.033	0.054	0.040
20 Roosevelt Road, Des Plaines River	ND	ND	0.020	0.060	0.015	0.023	0.033	0.031	0.034	0.046	0.037
22 Ogden Avenue, Des Plaines River	ND	ND	0.010	0.060	0.017	0.021	0.036	0.037	0.037	0.046	0.036
23 Willow Springs Road, Des Plaines River	ND	ND	0.013	0.060	0.010	0.020	0.028	0.028	0.034	0.043	0.037
29 Stephen Street, Des Plaines River	ND	ND	0.018	0.060	0.015	0.021	0.027	0.033	0.033	0.042	0.035
91 Material Service Road, Des Plaines River	ND	ND	0.013	0.060	0.014	0.020	0.027	0.027	0.033	0.040	0.039

ND = No Data.

TABLE AII-55: TOTAL SELENIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.006	0.006	0.000	0.011	0.000	0.000	0.003	0.007	0.010
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.015
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.006	0.006	0.000	0.000	0.000	0.000	0.001	0.005	0.014
104 Glenview Road, North Branch Chicago River	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.004	0.011
32 Lake-Cook Road, Skokie River	ND	ND	0.007	0.005	0.000	0.000	0.000	0.000	0.001	0.005	0.012
105 Frontage Road, Skokie River	ND	ND	0.007	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.012
34 Dempster Street, North Branch Chicago River	ND	ND	0.006	0.006	0.000	0.000	0.000	0.000	0.001	0.006	0.012
96 Albany Avenue, North Branch Chicago River	0.015	0.024	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.004	0.009
35 Central Street, North Shore Channel	ND	ND	0.006	0.006	0.000	0.013	0.000	0.000	0.000	0.007	0.008
112 Dempster Street, North Shore Channel	0.012	0.024	0.005	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.005	0.005	0.000	0.012	0.000	0.000	0.002	0.004	0.011
36 Touhy Avenue, North Shore Channel	0.016	0.027	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.010
101 Foster Avenue, North Shore Channel	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.006	0.010
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.001	0.007	0.011
73 Diversey Parkway, North Branch Chicago River	0.016	0.025	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.005	0.010
46 Grand Avenue, North Branch Chicago River	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.009	0.010
74 Lake Shore Drive, Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.009
100 Wells Street, Chicago River	0.014	0.018	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.008
39 Madison Street, South Branch Chicago River	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.000	0.007	0.009
108 Loomis Street, South Branch Chicago River	0.016	0.017	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.007
99 Archer Avenue, South Fork South Branch Chicago River	0.016	0.019	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.009
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.008
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.018	0.016	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.010	0.008
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.015	0.019	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.010
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.008
48 Stephen Street, Chicago Sanitary and Ship Canal	0.015	0.020	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.008
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.016	0.024	0.006	0.005	0.000	0.004	0.000	0.000	0.000	0.007	0.011
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.005	0.000	0.014	0.000	0.000	0.000	0.004	0.008
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.004	0.007
55 130th Street, Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.011
86 Burnham Avenue, Grand Calumet River	0.014	0.025	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.005	0.015
56 Indiana Avenue, Little Calumet River	0.010	0.023	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.005	0.008
76 Halsted Street, Little Calumet River	0.018	0.023	0.005	0.006	0.000	0.010	0.000	0.000	0.000	0.006	0.011
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.004	0.012
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.006
97 170th Street, Thorn Creek	ND	ND	0.006	0.005	0.000	0.011	0.000	0.000	0.000	0.005	0.008
57 Ashland Avenue, Little Calumet River	0.013	0.025	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.012
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.010
59 Cicero Avenue, Calumet-Sag Channel	0.014	0.024	0.006	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.013
43 Route 83, Calumet-Sag Channel	0.017	0.026	0.005	0.005	0.000	0.013	0.000	0.000	0.000	0.005	0.010
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.013
110 Springinsguth Road, West Branch DuPage River	0.012	0.022	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.012
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.008	0.013
111 Arlington Drive, West Branch DuPage River	0.015	0.022	0.005	0.005	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.009	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.002	0.007	0.013
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.009	0.010
18 Devon Avenue, Salt Creek	0.015	0.022	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.011
24 Wolf Road, Salt Creek	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.009	0.012
109 Brookfield Avenue, Salt Creek	0.012	0.022	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.011
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.015	0.021	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.010	0.014
78 Wille Road, Higgins Creek	0.012	0.023	0.006	0.005	0.000	0.000	0.000	0.000	0.001	0.008	0.011
12 Lake-Cook Road, Buffalo Creek	0.005	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.014
17 Oakton Street, Des Plaines River	ND	ND	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.006	0.011
19 Belmont Avenue, Des Plaines River	0.014	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.010
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.007	0.013
22 Ogden Avenue, Des Plaines River	0.011	0.023	0.005	0.005	0.000	0.009	0.000	0.000	0.000	0.010	0.011
23 Willow Springs Road, Des Plaines River	0.010	0.025	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.010
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.008	0.011
91 Material Service Road, Des Plaines River	0.013	0.023	0.005	0.005	0.000	0.000	0.000	0.000	0.002	0.010	0.013

ND = No Data.

**TABLE AII-56: SOLUBLE CALCIUM MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	84.3	76.7	75.3	65.8	68.8	70.9	57.9	65.7	81.4
103 Golf Road, West Fork North Branch Chicago River	ND	ND	92.8	74.9	72.4	65.2	65.8	72.2	70.4	74.0	69.0
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	79.5	60.2	63.8	55.7	59.0	63.4	58.4	59.4	62.4
104 Glenview Road, North Branch Chicago River	ND	ND	79.5	59.8	65.0	59.7	63.2	61.4	58.1	55.5	62.9
32 Lake-Cook Road, Skokie River	ND	ND	84.3	66.8	72.2	61.4	62.6	72.8	63.1	64.0	70.5
105 Frontage Road, Skokie River	ND	ND	79.5	60.2	63.7	60.5	63.6	60.2	59.9	55.7	61.7
34 Dempster Street, North Branch Chicago River	ND	ND	91.0	63.7	71.7	59.5	61.7	62.6	62.8	61.6	65.7
96 Albany Avenue, North Branch Chicago River	ND	ND	88.3	67.0	65.8	62.6	65.2	64.7	64.7	63.7	64.1
35 Central Street, North Shore Channel	ND	ND	63.5	38.9	38.1	35.3	38.1	38.6	35.3	32.8	36.4
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	61.0	48.6	48.4	46.1	45.8	47.0	45.2	42.7	44.4
36 Touhy Avenue, North Shore Channel	ND	ND	59.3	55.6	51.7	58.3	57.9	53.7	49.8	46.8	54.6
101 Foster Avenue, North Shore Channel	ND	ND	60.8	54.8	55.2	56.0	59.0	56.6	51.5	47.4	54.7
37 Wilson Avenue, North Branch Chicago River	ND	ND	63.3	56.8	60.0	56.4	60.1	56.8	53.4	49.6	57.6
73 Diversey Parkway, North Branch Chicago River	ND	ND	65.0	57.3	57.9	56.7	60.8	56.4	53.7	49.1	58.1
46 Grand Avenue, North Branch Chicago River	ND	ND	66.8	58.1	55.5	54.8	58.8	56.4	54.0	52.7	57.5
74 Lake Shore Drive, Chicago River	ND	ND	54.5	44.5	37.3	36.0	37.5	40.6	36.7	37.9	40.1
100 Wells Street, Chicago River	ND	ND	61.5	50.5	43.0	42.6	47.0	44.5	42.3	41.8	43.5
39 Madison Street, South Branch Chicago River	ND	ND	63.5	59.3	49.7	51.7	52.8	49.1	49.0	49.0	50.2
108 Loomis Street, South Branch Chicago River	ND	ND	63.8	54.2	51.2	52.3	53.1	49.8	50.7	51.2	50.4
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	52.3	54.4	54.6	50.6	56.2	49.4	49.3	48.5	50.7
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	63.8	54.3	51.9	52.8	52.7	50.4	49.6	49.8	50.5
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	64.8	54.5	52.8	50.9	57.0	50.9	48.2	51.1	51.6
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	62.5	56.9	58.1	56.2	57.7	53.0	47.5	51.4	53.5
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	62.5	59.2	57.4	54.4	57.3	54.1	52.8	53.6	54.7
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	69.3	60.2	58.5	54.4	58.8	55.7	55.9	56.1	59.0
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	70.0	58.7	59.0	56.3	59.2	56.9	55.0	54.9	56.8
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	36.7	35.3	34.4	34.2	34.3	35.1	32.2	34.4	35.1
50 Burnham Avenue, Wolf Lake	ND	ND	42.8	34.5	36.0	34.8	35.0	34.7	28.7	34.8	35.1
55 130th Street, Calumet River	ND	ND	49.8	41.2	41.5	41.2	41.5	45.6	38.4	40.9	40.5
86 Burnham Avenue, Grand Calumet River	ND	ND	110.3	75.3	78.8	80.8	91.4	86.4	92.8	64.3	77.0
56 Indiana Avenue, Little Calumet River	ND	ND	59.3	48.6	47.5	47.4	49.4	51.5	45.1	44.7	45.7
76 Halsted Street, Little Calumet River	ND	ND	75.0	62.7	61.6	61.1	65.8	63.3	58.2	60.7	60.4
52 Wentworth Avenue, Little Calumet River	ND	ND	84.0	61.3	65.1	71.7	88.8	74.3	80.9	70.9	82.2
54 Joe Orr Road, Thorn Creek	ND	ND	89.5	65.7	77.0	74.1	84.4	74.9	79.6	66.9	77.3
97 170th Street, Thorn Creek	ND	ND	89.5	67.8	68.6	75.3	85.3	68.0	80.8	78.0	81.3
57 Ashland Avenue, Little Calumet River	ND	ND	83.3	65.0	68.2	69.2	80.5	66.1	77.8	68.9	74.3
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	75.3	62.2	59.7	59.3	65.7	59.6	61.7	63.2	61.9
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	71.8	63.5	62.5	60.8	66.3	58.3	65.2	61.6	62.8
43 Route 83, Calumet-Sag Channel	ND	ND	77.0	59.0	64.9	59.3	65.4	59.4	63.0	60.7	59.9
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	85.0	68.1	69.9	65.5	70.4	66.6	67.0	60.5	70.9
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	78.8	68.7	62.0	64.9	60.4	60.5	63.2	54.8	58.7
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	75.0	64.0	64.7	56.5	61.2	56.7	63.0
111 Arlington Drive, West Branch DuPage River	ND	ND	84.0	66.7	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	91.7	67.8	47.1	60.4	68.4	61.9	60.6	60.1	69.8
80 Arlington Heights Road, Salt Creek	ND	ND	79.5	59.8	63.4	59.0	68.9	61.6	61.9	62.7	61.9
18 Devon Avenue, Salt Creek	ND	ND	79.8	62.4	67.5	58.2	67.4	61.5	62.0	61.9	61.9
24 Wolf Road, Salt Creek	ND	ND	88.0	66.2	70.4	66.4	69.0	61.9	60.7	59.7	66.4
109 Brookfield Avenue, Salt Creek	ND	ND	88.3	66.8	66.1	63.6	65.3	60.7	59.6	58.2	66.2
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	85.7	52.3	46.1	50.2	58.8	40.9	52.5	52.2	70.0
78 Wille Road, Higgins Creek	ND	ND	84.5	81.8	71.9	76.9	75.0	68.0	66.7	64.0	67.1
12 Lake-Cook Road, Buffalo Creek	ND	ND	89.3	69.7	72.7	66.9	76.2	68.6	70.9	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	75.3	64.2	64.8	59.7	70.8	64.4	69.4	63.4	66.9
17 Oakton Street, Des Plaines River	ND	ND	77.5	64.7	62.9	58.9	68.2	62.6	67.1	62.6	68.1
19 Belmont Avenue, Des Plaines River	ND	ND	78.5	65.4	62.1	61.1	69.4	61.6	66.5	62.5	67.8
20 Roosevelt Road, Des Plaines River	ND	ND	79.5	64.9	61.6	59.2	69.5	60.4	65.2	60.7	67.6
22 Ogden Avenue, Des Plaines River	ND	ND	81.5	64.8	63.3	59.3	65.7	59.5	62.8	58.0	65.6
23 Willow Springs Road, Des Plaines River	ND	ND	81.5	64.7	61.9	59.5	67.3	59.4	62.1	59.2	66.9
29 Stephen Street, Des Plaines River	ND	ND	80.8	64.2	64.2	59.1	68.5	63.2	66.1	62.3	67.1
91 Material Service Road, Des Plaines River	ND	ND	80.8	63.5	66.7	60.5	67.9	62.4	67.2	61.8	67.1

ND = No Data.

TABLE AII-57: SOLUBLE MAGNESIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	33.7	31.9	30.8	27.8	29.2	28.1	23.9	27.3	33.3
103 Golf Road, West Fork North Branch Chicago River	ND	ND	37.8	30.0	29.2	26.3	26.0	29.2	28.7	29.9	26.5
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	37.5	25.9	28.2	24.3	25.0	28.9	27.0	30.8	28.1
104 Glenview Road, North Branch Chicago River	ND	ND	35.8	25.0	28.5	25.6	26.7	26.8	25.5	25.4	26.5
32 Lake-Cook Road, Skokie River	ND	ND	37.0	27.8	31.5	25.5	26.0	30.9	28.3	30.2	30.0
105 Frontage Road, Skokie River	ND	ND	36.8	25.5	27.9	26.0	26.8	26.0	26.0	25.0	26.1
34 Dempster Street, North Branch Chicago River	ND	ND	39.0	26.9	29.9	24.8	25.5	27.0	26.8	27.2	26.9
96 Albany Avenue, North Branch Chicago River	ND	ND	38.3	28.0	27.4	26.1	26.4	27.8	27.3	27.7	26.4
35 Central Street, North Shore Channel	ND	ND	24.5	13.5	13.1	12.3	13.0	13.3	11.9	11.3	12.1
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	22.0	17.0	17.2	16.3	15.8	16.5	15.9	15.2	15.0
36 Touhy Avenue, North Shore Channel	ND	ND	21.0	19.7	18.5	20.8	21.0	19.2	18.0	16.8	19.1
101 Foster Avenue, North Shore Channel	ND	ND	21.5	19.5	19.8	19.8	21.4	20.1	18.7	16.9	19.4
37 Wilson Avenue, North Branch Chicago River	ND	ND	23.0	20.9	22.7	20.7	22.4	20.9	20.1	18.2	20.9
73 Diversey Parkway, North Branch Chicago River	ND	ND	25.0	21.1	21.3	20.6	22.6	20.9	20.0	17.8	21.0
46 Grand Avenue, North Branch Chicago River	ND	ND	25.3	21.5	20.4	19.9	21.5	20.8	20.1	19.5	20.5
74 Lake Shore Drive, Chicago River	ND	ND	20.3	15.4	12.9	12.3	12.8	14.3	12.6	13.4	14.1
100 Wells Street, Chicago River	ND	ND	23.0	18.1	15.2	15.0	16.7	15.7	15.0	14.7	15.3
39 Madison Street, South Branch Chicago River	ND	ND	24.3	21.6	18.0	18.9	19.1	17.8	18.2	17.8	17.9
108 Loomis Street, South Branch Chicago River	ND	ND	24.3	19.7	18.6	19.0	19.0	18.0	18.8	18.9	18.0
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	17.5	19.5	19.7	17.8	20.2	17.6	18.1	17.4	18.0
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	23.8	19.8	18.8	19.1	19.2	18.1	18.4	18.3	18.0
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	24.0	19.7	19.3	18.4	20.8	18.4	17.6	18.8	18.5
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	22.5	20.2	21.0	20.2	21.2	19.0	17.6	18.9	19.1
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	22.5	20.7	20.3	19.6	20.7	19.7	19.5	19.8	19.7
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	25.5	21.4	20.9	19.5	21.2	20.6	20.7	21.0	21.4
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	25.8	20.8	21.2	20.4	21.2	21.0	20.3	20.4	20.6
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	12.0	11.8	11.7	11.3	11.4	11.7	10.5	11.5	11.6
50 Burnham Avenue, Wolf Lake	ND	ND	13.3	12.1	12.6	11.5	12.0	11.7	11.3	13.1	13.0
55 130th Street, Calumet River	ND	ND	16.3	14.2	14.5	14.0	14.0	15.7	13.0	14.2	13.9
86 Burnham Avenue, Grand Calumet River	ND	ND	40.0	27.3	27.1	37.1	36.8	38.6	47.6	43.0	50.1
56 Indiana Avenue, Little Calumet River	ND	ND	21.3	17.2	16.6	16.5	17.2	19.1	16.3	16.7	17.2
76 Halsted Street, Little Calumet River	ND	ND	26.5	21.8	21.3	21.2	23.0	22.3	20.7	21.7	21.1
52 Wentworth Avenue, Little Calumet River	ND	ND	33.8	23.8	26.3	27.4	34.6	29.7	32.0	28.6	32.1
54 Joe Orr Road, Thorn Creek	ND	ND	34.5	24.9	28.3	28.0	31.7	29.6	34.8	30.2	32.5
97 170th Street, Thorn Creek	ND	ND	36.5	28.9	28.2	29.9	34.4	27.3	35.7	35.0	35.2
57 Ashland Avenue, Little Calumet River	ND	ND	33.3	25.7	26.5	26.9	31.4	25.9	32.8	29.1	30.1
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	27.3	22.6	21.6	21.4	23.4	21.5	22.4	23.2	22.3
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	26.3	22.8	22.7	22.0	23.8	20.9	24.1	22.7	23.1
43 Route 83, Calumet-Sag Channel	ND	ND	28.8	21.5	23.8	21.9	23.8	21.9	23.6	22.7	22.1
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	37.8	29.6	31.9	28.6	31.6	30.1	29.5	28.2	32.3
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	31.0	26.4	23.7	25.1	23.1	23.0	23.9	20.9	21.8
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	28.0	24.4	24.3	21.8	22.9	21.8	23.3
111 Arlington Drive, West Branch DuPage River	ND	ND	32.5	25.0	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	38.7	27.3	19.5	25.7	28.4	26.0	25.4	27.6	29.4
80 Arlington Heights Road, Salt Creek	ND	ND	31.3	22.5	24.4	22.5	26.4	24.3	24.3	25.0	23.6
18 Devon Avenue, Salt Creek	ND	ND	31.5	23.1	25.8	22.6	25.8	24.3	24.4	24.6	23.6
24 Wolf Road, Salt Creek	ND	ND	35.8	26.0	27.2	26.3	27.4	25.3	24.6	25.3	26.9
109 Brookfield Avenue, Salt Creek	ND	ND	35.8	26.0	26.0	25.2	26.2	24.8	24.1	24.6	26.8
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	32.0	18.4	15.7	18.1	19.1	13.9	17.7	17.8	25.4
78 Wille Road, Higgins Creek	ND	ND	33.3	30.5	26.7	29.0	28.0	25.3	24.9	24.3	24.7
12 Lake-Cook Road, Buffalo Creek	ND	ND	40.5	29.8	31.6	28.7	33.3	30.2	31.8	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	35.0	28.7	29.0	26.7	31.4	29.4	31.7	28.9	30.1
17 Oakton Street, Des Plaines River	ND	ND	35.8	28.4	27.3	25.9	29.7	28.5	30.3	28.6	30.7
19 Belmont Avenue, Des Plaines River	ND	ND	35.8	28.0	26.1	26.4	29.5	27.3	29.0	27.7	30.0
20 Roosevelt Road, Des Plaines River	ND	ND	36.3	27.7	25.8	25.6	29.7	27.0	28.4	27.2	30.0
22 Ogden Avenue, Des Plaines River	ND	ND	36.0	26.9	26.3	25.1	27.6	25.8	26.7	25.6	28.5
23 Willow Springs Road, Des Plaines River	ND	ND	35.8	27.1	25.7	25.5	28.5	26.1	26.8	26.4	29.3
29 Stephen Street, Des Plaines River	ND	ND	35.5	26.6	26.7	25.1	28.8	27.8	28.4	27.6	29.2
91 Material Service Road, Des Plaines River	ND	ND	35.5	26.4	28.0	25.6	28.7	27.5	29.1	27.7	29.3

ND = No Data.

**TABLE AII-58: SOLUBLE SILVER MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.001	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
43 Route 83, Calumet-Sag Channel	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	0.001	0.001	0.001	0.002	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.001	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-59: SOLUBLE ARSENIC MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)											
	14	13	12	11	10	09	08	07	06	05	04	
Chicago River System												
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.020	0.021	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.020	0.020	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.035	0.029	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.026	0.025	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.035	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.034	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	0.033	0.028	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.037	0.030	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.035	0.032	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.036	0.031	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.035	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.038	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.038	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System												
49 Ewing Avenue, Calumet River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.036	0.041	0.025	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.031	0.030	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.041	0.035	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.034	0.037	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.036	0.035	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.000
43 Route 83, Calumet-Sag Channel	0.035	0.037	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Des Plaines River System												
90 Route 19, Poplar Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.037	0.036	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	0.039	0.035	0.020	0.020	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.034	0.034	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.039	0.031	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.034	0.035	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.040	0.025	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
78 Wille Road, Higgins Creek	0.038	0.036	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.001
17 Oakton Street, Des Plaines River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	0.036	0.032	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.033	0.034	0.021	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.033	0.033	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.038	0.032	0.020	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-60: SOLUBLE BARIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.066	0.067	0.060	0.051	0.052	0.054	0.042	0.043	0.054
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.058	0.049	0.046	0.042	0.043	0.046	0.044	0.046	0.042
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.040	0.034	0.037	0.032	0.035	0.037	0.035	0.034	0.034
104 Glenview Road, North Branch Chicago River	ND	ND	0.036	0.030	0.029	0.028	0.032	0.030	0.028	0.026	0.028
32 Lake-Cook Road, Skokie River	ND	ND	0.046	0.037	0.041	0.034	0.036	0.042	0.035	0.035	0.040
105 Frontage Road, Skokie River	ND	ND	0.033	0.027	0.027	0.026	0.030	0.027	0.026	0.025	0.025
34 Dempster Street, North Branch Chicago River	ND	ND	0.049	0.035	0.037	0.030	0.034	0.033	0.033	0.032	0.033
96 Albany Avenue, North Branch Chicago River	ND	ND	0.044	0.036	0.035	0.033	0.037	0.035	0.034	0.033	0.032
35 Central Street, North Shore Channel	ND	ND	0.033	0.022	0.022	0.019	0.022	0.022	0.020	0.019	0.020
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.024	0.023	0.022	0.021	0.022	0.022	0.020	0.021	0.020
36 Touhy Avenue, North Shore Channel	ND	ND	0.024	0.024	0.020	0.024	0.024	0.022	0.019	0.018	0.019
101 Foster Avenue, North Shore Channel	ND	ND	0.025	0.023	0.022	0.023	0.025	0.023	0.020	0.018	0.019
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.027	0.026	0.026	0.025	0.027	0.024	0.022	0.020	0.021
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.026	0.025	0.024	0.024	0.027	0.023	0.021	0.019	0.021
46 Grand Avenue, North Branch Chicago River	ND	ND	0.027	0.025	0.022	0.023	0.026	0.023	0.021	0.020	0.020
74 Lake Shore Drive, Chicago River	ND	ND	0.027	0.025	0.022	0.021	0.022	0.022	0.021	0.021	0.020
100 Wells Street, Chicago River	ND	ND	0.027	0.024	0.022	0.023	0.024	0.022	0.021	0.020	0.020
39 Madison Street, South Branch Chicago River	ND	ND	0.026	0.026	0.022	0.023	0.024	0.022	0.021	0.020	0.019
108 Loomis Street, South Branch Chicago River	ND	ND	0.027	0.024	0.023	0.023	0.024	0.022	0.022	0.021	0.019
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.025	0.025	0.023	0.023	0.026	0.022	0.021	0.020	0.018
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.026	0.024	0.022	0.024	0.024	0.022	0.021	0.020	0.019
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.025	0.023	0.021	0.022	0.025	0.022	0.020	0.020	0.019
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.022	0.021	0.020	0.020	0.022	0.019	0.016	0.016	0.016
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.018	0.019	0.018	0.019	0.020	0.017	0.017	0.016	0.016
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.021	0.020	0.019	0.019	0.021	0.018	0.018	0.017	0.017
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.021	0.021	0.020	0.020	0.021	0.019	0.018	0.017	0.018
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.021	0.022	0.021	0.020	0.021	0.020	0.019	0.020	0.020
50 Burnham Avenue, Wolf Lake	ND	ND	0.035	0.033	0.034	0.032	0.033	0.034	0.025	0.030	0.029
55 130th Street, Calumet River	ND	ND	0.031	0.029	0.027	0.028	0.029	0.030	0.026	0.027	0.027
86 Burnham Avenue, Grand Calumet River	ND	ND	0.033	0.025	0.025	0.023	0.025	0.022	0.019	0.016	0.016
56 Indiana Avenue, Little Calumet River	ND	ND	0.030	0.028	0.026	0.029	0.030	0.029	0.026	0.025	0.026
76 Halsted Street, Little Calumet River	ND	ND	0.020	0.022	0.018	0.021	0.021	0.021	0.017	0.018	0.018
52 Wentworth Avenue, Little Calumet River	ND	ND	0.032	0.028	0.030	0.030	0.034	0.029	0.033	0.028	0.033
54 Joe Orr Road, Thorn Creek	ND	ND	0.026	0.026	0.031	0.026	0.030	0.025	0.029	0.026	0.030
97 170th Street, Thorn Creek	ND	ND	0.033	0.029	0.029	0.031	0.034	0.028	0.033	0.032	0.034
57 Ashland Avenue, Little Calumet River	ND	ND	0.034	0.031	0.031	0.030	0.034	0.029	0.033	0.029	0.032
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.022	0.023	0.022	0.022	0.022	0.022	0.019	0.020	0.020
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.023	0.023	0.022	0.023	0.023	0.021	0.021	0.019	0.021
43 Route 83, Calumet-Sag Channel	ND	ND	0.024	0.022	0.023	0.022	0.024	0.023	0.021	0.019	0.021
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.064	0.059	0.062	0.059	0.065	0.071	0.085	0.095	0.091
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.035	0.033	0.027	0.028	0.028	0.027	0.027	0.022	0.022
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.038	0.030	0.031	0.026	0.029	0.026	0.026
111 Arlington Drive, West Branch DuPage River	ND	ND	0.038	0.033	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.047	0.038	0.030	0.034	0.042	0.039	0.037	0.041	0.045
80 Arlington Heights Road, Salt Creek	ND	ND	0.036	0.028	0.027	0.024	0.028	0.024	0.028	0.028	0.024
18 Devon Avenue, Salt Creek	ND	ND	0.036	0.028	0.028	0.024	0.028	0.024	0.028	0.027	0.024
24 Wolf Road, Salt Creek	ND	ND	0.036	0.031	0.031	0.029	0.032	0.029	0.027	0.025	0.028
109 Brookfield Avenue, Salt Creek	ND	ND	0.037	0.032	0.031	0.029	0.032	0.029	0.027	0.026	0.029
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.058	0.041	0.040	0.038	0.051	0.036	0.048	0.049	0.059
78 Wille Road, Higgins Creek	ND	ND	0.033	0.028	0.022	0.027	0.023	0.022	0.021	0.018	0.019
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.041	0.038	0.042	0.037	0.043	0.039	0.041	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.035	0.035	0.035	0.028	0.034	0.034	0.038	0.031	0.031
17 Oakton Street, Des Plaines River	ND	ND	0.036	0.037	0.038	0.029	0.035	0.035	0.041	0.033	0.033
19 Belmont Avenue, Des Plaines River	ND	ND	0.036	0.034	0.034	0.029	0.035	0.033	0.037	0.031	0.032
20 Roosevelt Road, Des Plaines River	ND	ND	0.037	0.035	0.034	0.028	0.035	0.033	0.037	0.031	0.033
22 Ogden Avenue, Des Plaines River	ND	ND	0.038	0.033	0.033	0.028	0.033	0.031	0.033	0.028	0.031
23 Willow Springs Road, Des Plaines River	ND	ND	0.037	0.033	0.032	0.028	0.034	0.031	0.033	0.029	0.031
29 Stephen Street, Des Plaines River	ND	ND	0.037	0.032	0.031	0.028	0.033	0.032	0.034	0.028	0.031
91 Material Service Road, Des Plaines River	ND	ND	0.036	0.032	0.032	0.028	0.034	0.032	0.033	0.027	0.030

ND = No Data.

**TABLE AII-61: SOLUBLE BORON MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.120	0.147	0.156	0.147	0.146	0.143	0.126	0.176	0.195
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.113	0.127	0.125	0.122	0.103	0.149	0.138	0.178	0.130
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.070	0.076	0.088	0.074	0.079	0.110	0.111	0.163	0.162
104 Glenview Road, North Branch Chicago River	ND	ND	0.103	0.108	0.131	0.115	0.111	0.141	0.133	0.170	0.146
32 Lake-Cook Road, Skokie River	ND	ND	0.090	0.091	0.109	0.105	0.093	0.115	0.128	0.151	0.123
105 Frontage Road, Skokie River	ND	ND	0.115	0.124	0.136	0.129	0.118	0.150	0.151	0.175	0.161
34 Dempster Street, North Branch Chicago River	ND	ND	0.110	0.115	0.113	0.111	0.113	0.139	0.135	0.174	0.143
96 Albany Avenue, North Branch Chicago River	ND	ND	0.115	0.115	0.123	0.120	0.105	0.139	0.141	0.177	0.141
35 Central Street, North Shore Channel	ND	ND	0.060	0.070	0.013	0.036	0.033	0.035	0.035	0.030	0.032
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.178	0.108	0.077	0.083	0.074	0.088	0.109	0.085	0.071
36 Touhy Avenue, North Shore Channel	ND	ND	0.170	0.153	0.161	0.156	0.164	0.186	0.180	0.168	0.158
101 Foster Avenue, North Shore Channel	ND	ND	0.170	0.137	0.156	0.148	0.162	0.183	0.184	0.164	0.159
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.150	0.124	0.142	0.136	0.144	0.160	0.162	0.155	0.147
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.168	0.128	0.145	0.131	0.138	0.166	0.155	0.150	0.148
46 Grand Avenue, North Branch Chicago River	ND	ND	0.158	0.123	0.134	0.123	0.129	0.155	0.152	0.161	0.142
74 Lake Shore Drive, Chicago River	ND	ND	0.093	0.087	0.040	0.041	0.054	0.057	0.055	0.053	0.060
100 Wells Street, Chicago River	ND	ND	0.120	0.101	0.064	0.061	0.077	0.070	0.074	0.073	0.082
39 Madison Street, South Branch Chicago River	ND	ND	0.138	0.122	0.109	0.106	0.107	0.107	0.118	0.126	0.130
108 Loomis Street, South Branch Chicago River	ND	ND	0.138	0.109	0.114	0.106	0.111	0.110	0.121	0.126	0.125
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.110	0.110	0.129	0.104	0.122	0.114	0.114	0.128	0.125
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.135	0.108	0.115	0.106	0.108	0.108	0.119	0.126	0.129
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.148	0.110	0.121	0.099	0.128	0.119	0.117	0.126	0.126
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.173	0.154	0.160	0.154	0.155	0.168	0.161	0.165	0.187
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.253	0.211	0.232	0.171	0.166	0.212	0.205	0.207	0.236
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.248	0.193	0.212	0.161	0.168	0.196	0.198	0.201	0.199
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.237	0.191	0.203	0.167	0.179	0.198	0.209	0.209	0.185
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.050	0.070	0.032	0.038	0.036	0.042	0.044	0.036	0.030
50 Burnham Avenue, Wolf Lake	ND	ND	0.238	0.238	0.236	0.239	0.172	0.169	0.108	0.142	0.131
55 130th Street, Calumet River	ND	ND	0.183	0.116	0.096	0.123	0.117	0.152	0.103	0.109	0.094
86 Burnham Avenue, Grand Calumet River	ND	ND	1.000	0.767	0.686	0.357	0.642	0.528	0.578	0.271	0.403
56 Indiana Avenue, Little Calumet River	ND	ND	0.203	0.131	0.115	0.134	0.146	0.167	0.131	0.111	0.109
76 Halsted Street, Little Calumet River	ND	ND	0.210	0.185	0.172	0.176	0.197	0.195	0.218	0.193	0.170
52 Wentworth Avenue, Little Calumet River	ND	ND	0.175	0.132	0.175	0.175	0.250	0.228	0.231	0.216	0.220
54 Joe Orr Road, Thorn Creek	ND	ND	0.260	0.196	0.220	0.263	0.316	0.314	0.391	0.252	0.288
97 170th Street, Thorn Creek	ND	ND	0.193	0.178	0.185	0.214	0.237	0.222	0.290	0.235	0.242
57 Ashland Avenue, Little Calumet River	ND	ND	0.178	0.168	0.188	0.199	0.227	0.200	0.247	0.222	0.196
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.198	0.166	0.159	0.167	0.191	0.174	0.219	0.199	0.173
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.193	0.168	0.174	0.163	0.192	0.167	0.214	0.189	0.177
43 Route 83, Calumet-Sag Channel	ND	ND	0.203	0.153	0.183	0.158	0.176	0.168	0.198	0.195	0.165
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.050	0.070	0.037	0.050	0.051	0.055	0.057	0.061	0.049
110 Springinguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.193	0.172	0.215	0.211	0.214	0.248	0.242	0.267	0.245
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.119	0.157	0.183	0.188	0.186	0.222	0.209
111 Arlington Drive, West Branch DuPage River	ND	ND	0.140	0.144	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.070	0.099	0.075	0.085	0.083	0.084	0.088	0.092	0.081
80 Arlington Heights Road, Salt Creek	ND	ND	0.158	0.132	0.190	0.147	0.168	0.196	0.186	0.192	0.179
18 Devon Avenue, Salt Creek	ND	ND	0.148	0.146	0.197	0.143	0.165	0.199	0.190	0.198	0.172
24 Wolf Road, Salt Creek	ND	ND	0.165	0.161	0.164	0.150	0.176	0.183	0.184	0.227	0.175
109 Brookfield Avenue, Salt Creek	ND	ND	0.165	0.155	0.184	0.156	0.180	0.181	0.199	0.254	0.178
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.177	0.082	0.055	0.067	0.113	0.089	0.078	0.074	0.077
78 Wille Road, Higgins Creek	ND	ND	0.230	0.224	0.202	0.201	0.235	0.254	0.285	0.341	0.284
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.075	0.081	0.091	0.083	0.088	0.093	0.099	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.088	0.115	0.141	0.121	0.150	0.153	0.170	0.211	0.168
17 Oakton Street, Des Plaines River	ND	ND	0.090	0.115	0.144	0.111	0.141	0.138	0.151	0.204	0.158
19 Belmont Avenue, Des Plaines River	ND	ND	0.103	0.124	0.152	0.121	0.151	0.152	0.166	0.225	0.168
20 Roosevelt Road, Des Plaines River	ND	ND	0.103	0.124	0.157	0.116	0.163	0.152	0.166	0.230	0.165
22 Ogden Avenue, Des Plaines River	ND	ND	0.120	0.128	0.152	0.128	0.162	0.156	0.184	0.229	0.162
23 Willow Springs Road, Des Plaines River	ND	ND	0.115	0.129	0.158	0.125	0.166	0.158	0.182	0.234	0.165
29 Stephen Street, Des Plaines River	ND	ND	0.115	0.121	0.146	0.119	0.157	0.167	0.189	0.235	0.161
91 Material Service Road, Des Plaines River	ND	ND	0.118	0.124	0.151	0.122	0.158	0.170	0.196	0.241	0.161

ND = No Data.

**TABLE AII-62: SOLUBLE CADMIUM MEAN HISTORY
2004 THROUGH 2014**

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.000
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.001	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
32 Lake-Cook Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
96 Albany Avenue, North Branch Chicago River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
36 Touhy Avenue, North Shore Channel	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
101 Foster Avenue, North Shore Channel	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
73 Diversey Parkway, North Branch Chicago River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
74 Lake Shore Drive, Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
100 Wells Street, Chicago River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
39 Madison Street, South Branch Chicago River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
108 Loomis Street, South Branch Chicago River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
99 Archer Avenue, South Fork South Branch Chicago River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
48 Stephen Street, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.001	0.000
56 Indiana Avenue, Little Calumet River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.001	0.000	0.000	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
54 Joe Orr Road, Thorn Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
57 Ashland Avenue, Little Calumet River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.001	0.001	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.001	0.001	0.000	0.001	0.000	0.000	0.001	0.000	0.000
59 Cicero Avenue, Calumet-Sag Channel	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
43 Route 83, Calumet-Sag Channel	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.001	0.001	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.000	0.000	0.000	0.000
111 Arlington Drive, West Branch DuPage River	0.001	0.001	0.001	0.001	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.001	0.001	0.002	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
18 Devon Avenue, Salt Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
24 Wolf Road, Salt Creek	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
109 Brookfield Avenue, Salt Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.001
78 Wille Road, Higgins Creek	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.001	0.001	0.002	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.001	0.000	0.000
17 Oakton Street, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
19 Belmont Avenue, Des Plaines River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
20 Roosevelt Road, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
22 Ogden Avenue, Des Plaines River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
23 Willow Springs Road, Des Plaines River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
91 Material Service Road, Des Plaines River	0.001	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000

ND = No Data.

TABLE AII-63: SOLUBLE COPPER MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.007	0.008	0.005	0.001	0.000	0.004	0.003	0.003	0.009
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002
32 Lake-Cook Road, Skokie River	ND	ND	0.005	0.006	0.000	0.000	0.000	0.000	0.001	0.001	0.002
105 Frontage Road, Skokie River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.002	0.002
34 Dempster Street, North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002
35 Central Street, North Shore Channel	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.005	0.000	0.002	0.000	0.001	0.000	0.000	0.001
101 Foster Avenue, North Shore Channel	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.002	0.000	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.000	0.000	0.001
46 Grand Avenue, North Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
74 Lake Shore Drive, Chicago River	ND	ND	0.006	0.006	0.001	0.000	0.000	0.001	0.001	0.001	0.003
100 Wells Street, Chicago River	0.005	0.005	0.006	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.002
39 Madison Street, South Branch Chicago River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.002
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.005	0.002	0.000	0.000	0.002	0.002	0.002	0.002
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.005	0.000	0.000	0.001	0.000	0.000	0.001	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.007	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.006	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.000	0.001
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.006
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.005	0.006	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	0.001
97 170th Street, Thorn Creek	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.005	0.002	0.000	0.000	0.000	0.000	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.001
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.006	0.006	0.002	0.001	0.001	0.004	0.003	0.004	0.005
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.003	0.003	0.003	0.003
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.000	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.005	0.001	0.000	0.000	0.002	0.002	0.002	0.003
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.005	0.001	0.000	0.000	0.001	0.002	0.003	0.003
24 Wolf Road, Salt Creek	ND	ND	0.005	0.005	0.002	0.000	0.000	0.002	0.002	0.003	0.003
109 Brookfield Avenue, Salt Creek	0.006	0.005	0.005	0.005	0.000	0.000	0.000	0.002	0.001	0.002	0.003
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.006	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.001	0.002
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.002	0.002
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.005	0.001	0.000	0.000	0.000	0.001	0.001	0.002
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.000	0.001	0.002
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.001
22 Ogden Avenue, Des Plaines River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.001	0.002	0.002
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.000	0.001	0.001	0.002
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.001	0.002
91 Material Service Road, Des Plaines River	0.005	0.005	0.005	0.005	0.000	0.000	0.000	0.001	0.000	0.001	0.002

ND = No Data.

TABLE AII-64: SOLUBLE CHROMIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
32 Lake-Cook Road, Skokie River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
105 Frontage Road, Skokie River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
101 Foster Avenue, North Shore Channel	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
46 Grand Avenue, North Branch Chicago River	ND	ND	0.006	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.001
74 Lake Shore Drive, Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
100 Wells Street, Chicago River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
39 Madison Street, South Branch Chicago River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.000	0.001
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.003	0.000	0.000	0.002	0.001	0.000	0.000	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.003	0.000	0.000	0.004	0.001	0.001	0.001	0.002
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.001	0.002
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.006	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.003	0.001	0.000	0.000	0.001	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.000
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.001	0.001
97 170th Street, Thorn Creek	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.001	0.000
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.001
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.005	0.004	0.000	0.000	0.000	0.001	0.001	0.000	0.001
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.001	0.001	0.000	0.001
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.003	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.001
18 Devon Avenue, Salt Creek	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.000	0.001	0.000	0.001
24 Wolf Road, Salt Creek	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001
109 Brookfield Avenue, Salt Creek	0.005	0.005	0.006	0.003	0.000	0.000	0.000	0.001	0.004	0.002	0.004
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.005	0.005	0.005	0.003	0.000	0.001	0.000	0.001	0.002	0.000	0.001
78 Wille Road, Higgins Creek	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.002
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.005	0.003	0.000	0.001	0.000	0.001	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.000	0.000	0.001
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.000	0.001
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.036	0.003	0.000	0.000	0.000	0.001	0.001	0.014	0.001
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.003	0.001	0.000	0.000	0.001	0.001	0.004	0.001
22 Ogden Avenue, Des Plaines River	0.005	0.009	0.011	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.002
23 Willow Springs Road, Des Plaines River	0.005	0.007	0.005	0.003	0.012	0.000	0.000	0.001	0.002	0.004	0.001
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.003	0.000	0.000	0.000	0.001	0.002	0.002	0.001
91 Material Service Road, Des Plaines River	0.005	0.005	0.005	0.003	0.000	0.000	0.000	0.001	0.001	0.001	0.001

ND = No Data.

TABLE AII-65: SOLUBLE IRON MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.100	0.200	0.025	0.057	0.054	0.055	0.046	0.041	0.042
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.100	0.200	0.023	0.041	0.049	0.024	0.037	0.029	0.031
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.100	0.200	0.073	0.074	0.086	0.081	0.063	0.072	0.052
104 Glenview Road, North Branch Chicago River	ND	ND	0.100	0.208	0.021	0.051	0.054	0.037	0.033	0.029	0.035
32 Lake-Cook Road, Skokie River	ND	ND	0.100	0.200	0.032	0.077	0.073	0.060	0.062	0.040	0.052
105 Frontage Road, Skokie River	ND	ND	0.100	0.200	0.079	0.042	0.042	0.047	0.026	0.023	0.027
34 Dempster Street, North Branch Chicago River	ND	ND	0.100	0.200	0.041	0.048	0.058	0.042	0.033	0.025	0.035
96 Albany Avenue, North Branch Chicago River	0.100	0.100	0.100	0.200	0.023	0.042	0.061	0.032	0.050	0.027	0.028
35 Central Street, North Shore Channel	ND	ND	0.100	0.200	0.014	0.048	0.015	0.015	0.024	0.022	0.040
112 Dempster Street, North Shore Channel	0.100	0.110	0.100	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.100	0.200	0.025	0.027	0.024	0.026	0.023	0.025	0.036
36 Touhy Avenue, North Shore Channel	0.100	0.100	0.100	0.200	0.021	0.031	0.030	0.028	0.031	0.025	0.029
101 Foster Avenue, North Shore Channel	ND	ND	0.100	0.200	0.024	0.032	0.032	0.035	0.029	0.030	0.033
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.100	0.200	0.025	0.047	0.042	0.034	0.032	0.035	0.041
73 Diversey Parkway, North Branch Chicago River	0.100	0.100	0.100	0.200	0.028	0.044	0.045	0.039	0.035	0.036	0.043
46 Grand Avenue, North Branch Chicago River	ND	ND	0.100	0.200	0.026	0.041	0.048	0.038	0.033	0.033	0.042
74 Lake Shore Drive, Chicago River	ND	ND	0.100	0.200	0.000	0.005	0.014	0.014	0.009	0.008	0.015
100 Wells Street, Chicago River	0.100	0.100	0.100	0.200	0.011	0.017	0.029	0.017	0.014	0.014	0.020
39 Madison Street, South Branch Chicago River	ND	ND	0.100	0.200	0.026	0.033	0.043	0.024	0.023	0.025	0.031
108 Loomis Street, South Branch Chicago River	0.100	0.100	0.100	0.200	0.027	0.031	0.045	0.024	0.021	0.033	0.032
99 Archer Avenue, South Fork South Branch Chicago River	0.136	0.110	0.108	0.200	0.045	0.043	0.056	0.025	0.019	0.019	0.034
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.100	0.200	0.032	0.039	0.043	0.024	0.021	0.023	0.034
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.100	0.100	0.100	0.200	0.026	0.032	0.038	0.020	0.020	0.026	0.022
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.100	0.100	0.100	0.200	0.033	0.037	0.034	0.027	0.027	0.027	0.033
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.100	0.317	0.049	0.037	0.037	0.028	0.033	0.028	0.046
48 Stephen Street, Chicago Sanitary and Ship Canal	0.100	0.100	0.117	0.233	0.025	0.043	0.038	0.030	0.033	0.025	0.041
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.100	0.100	0.100	0.204	0.026	0.044	0.035	0.028	0.031	0.025	0.033
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.100	0.200	0.000	0.000	0.000	0.006	0.004	0.004	0.005
50 Burnham Avenue, Wolf Lake	ND	ND	0.129	0.200	0.014	0.014	0.006	0.024	0.007	0.008	0.014
55 130th Street, Calumet River	ND	ND	0.100	0.200	0.002	0.014	0.007	0.016	0.008	0.007	0.004
86 Burnham Avenue, Grand Calumet River	0.138	0.182	0.318	0.210	0.110	0.107	0.101	0.128	0.034	0.070	0.057
56 Indiana Avenue, Little Calumet River	0.100	0.100	0.100	0.200	0.003	0.007	0.005	0.009	0.007	0.006	0.006
76 Halsted Street, Little Calumet River	0.100	0.100	0.100	0.200	0.022	0.030	0.034	0.030	0.032	0.038	0.038
52 Wentworth Avenue, Little Calumet River	ND	ND	0.100	0.200	0.071	0.069	0.067	0.072	0.061	0.082	0.084
54 Joe Orr Road, Thorn Creek	ND	ND	0.100	0.200	0.089	0.084	0.090	0.063	0.056	0.078	0.069
97 170th Street, Thorn Creek	ND	ND	0.100	0.200	0.076	0.051	0.051	0.051	0.036	0.040	0.049
57 Ashland Avenue, Little Calumet River	0.109	0.100	0.100	0.200	0.052	0.055	0.051	0.062	0.031	0.046	0.081
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.100	0.200	0.047	0.043	0.043	0.040	0.032	0.032	0.053
59 Cicero Avenue, Calumet-Sag Channel	0.100	0.100	0.100	0.200	0.045	0.043	0.036	0.051	0.038	0.029	0.033
43 Route 83, Calumet-Sag Channel	0.100	0.100	0.100	0.200	0.035	0.039	0.029	0.073	0.020	0.017	0.020
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.100	0.200	0.058	0.080	0.084	0.054	0.050	0.055	0.042
110 Springinsguth Road, West Branch DuPage River	0.271	0.213	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.100	0.200	0.033	0.051	0.065	0.061	0.050	0.054	0.054
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.045	0.048	0.051	0.037	0.037	0.042	0.038
111 Arlington Drive, West Branch DuPage River	0.100	0.100	0.100	0.200	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.100	0.100	0.100	0.200	0.039	0.052	0.051	0.041	0.027	0.043	0.054
80 Arlington Heights Road, Salt Creek	ND	ND	0.100	0.200	0.056	0.073	0.056	0.048	0.039	0.044	0.050
18 Devon Avenue, Salt Creek	0.100	0.100	0.100	0.200	0.045	0.070	0.056	0.044	0.038	0.037	0.050
24 Wolf Road, Salt Creek	ND	ND	0.100	0.200	0.030	0.051	0.049	0.036	0.032	0.051	0.032
109 Brookfield Avenue, Salt Creek	0.100	0.100	0.100	0.200	0.032	0.049	0.053	0.037	0.034	0.039	0.035
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.100	0.100	0.100	0.200	0.035	0.063	0.070	0.059	0.048	0.052	0.060
78 Wille Road, Higgins Creek	0.100	0.100	0.100	0.200	0.032	0.051	0.051	0.044	0.045	0.046	0.051
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.100	0.200	0.037	0.059	0.048	0.036	0.027	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.100	0.200	0.036	0.056	0.048	0.055	0.026	0.027	0.031
17 Oakton Street, Des Plaines River	ND	ND	0.100	0.200	0.046	0.052	0.045	0.047	0.035	0.028	0.030
19 Belmont Avenue, Des Plaines River	0.100	0.100	0.100	0.200	0.031	0.056	0.045	0.064	0.031	0.033	0.033
20 Roosevelt Road, Des Plaines River	ND	ND	0.100	0.200	0.025	0.052	0.042	0.052	0.027	0.035	0.032
22 Ogden Avenue, Des Plaines River	0.100	0.100	0.100	0.200	0.036	0.053	0.046	0.046	0.035	0.037	0.042
23 Willow Springs Road, Des Plaines River	0.100	0.100	0.100	0.200	0.035	0.048	0.032	0.051	0.046	0.029	0.047
29 Stephen Street, Des Plaines River	ND	ND	0.100	0.200	0.031	0.058	0.036	0.035	0.021	0.019	0.039
91 Material Service Road, Des Plaines River	0.100	0.100	0.100	0.200	0.027	0.043	0.035	0.032	0.023	0.020	0.040

ND = No Data.

TABLE AII-66: SOLUBLE LEAD MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.007	0.006	0.004	0.002	0.002	0.004
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.000	0.002	0.002	0.003	0.001	0.004
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.020	0.030	0.000	0.000	0.002	0.002	0.003	0.002	0.004
104 Glenview Road, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.007	0.006	0.002	0.003	0.002	0.003
32 Lake-Cook Road, Skokie River	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.004	0.001	0.005
105 Frontage Road, Skokie River	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003
34 Dempster Street, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.007	0.006	0.002	0.004	0.001	0.004
96 Albany Avenue, North Branch Chicago River	0.020	0.020	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.004
35 Central Street, North Shore Channel	ND	ND	0.020	0.030	0.000	0.000	0.000	0.001	0.003	0.001	0.003
112 Dempster Street, North Shore Channel	0.020	0.020	0.020	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.003	0.001	0.003
36 Touhy Avenue, North Shore Channel	0.020	0.020	0.020	0.030	0.000	0.007	0.005	0.002	0.003	0.001	0.003
101 Foster Avenue, North Shore Channel	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003
73 Diversey Parkway, North Branch Chicago River	0.020	0.020	0.020	0.030	0.000	0.007	0.005	0.002	0.003	0.001	0.003
46 Grand Avenue, North Branch Chicago River	ND	ND	0.020	0.030	0.000	0.006	0.005	0.002	0.003	0.001	0.003
74 Lake Shore Drive, Chicago River	ND	ND	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.001	0.003
100 Wells Street, Chicago River	0.020	0.020	0.020	0.030	0.000	0.000	0.005	0.002	0.003	0.001	0.002
39 Madison Street, South Branch Chicago River	ND	ND	0.020	0.030	0.000	0.000	0.005	0.002	0.004	0.001	0.003
108 Loomis Street, South Branch Chicago River	0.020	0.020	0.020	0.030	0.000	0.005	0.006	0.002	0.003	0.001	0.003
99 Archer Avenue, South Fork South Branch Chicago River	0.020	0.020	0.020	0.030	0.000	0.000	0.004	0.001	0.003	0.001	0.003
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.000	0.000	0.005	0.001	0.003	0.001	0.003
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.030	0.000	0.005	0.005	0.002	0.003	0.001	0.003
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.030	0.000	0.006	0.004	0.001	0.003	0.001	0.003
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.020	0.030	0.000	0.007	0.007	0.001	0.003	0.002	0.003
48 Stephen Street, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.030	0.002	0.007	0.005	0.001	0.003	0.002	0.003
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.020	0.020	0.020	0.030	0.000	0.005	0.005	0.002	0.003	0.002	0.003
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.020	0.030	0.004	0.000	0.000	0.001	0.002	0.001	0.002
50 Burnham Avenue, Wolf Lake	ND	ND	0.020	0.030	0.002	0.000	0.003	0.001	0.002	0.001	0.002
55 130th Street, Calumet River	ND	ND	0.020	0.030	0.002	0.000	0.002	0.001	0.003	0.001	0.002
86 Burnham Avenue, Grand Calumet River	0.020	0.020	0.020	0.030	0.000	0.000	0.003	0.002	0.003	0.002	0.003
56 Indiana Avenue, Little Calumet River	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.002	0.002	0.003
76 Halsted Street, Little Calumet River	0.020	0.020	0.020	0.030	0.000	0.006	0.006	0.001	0.003	0.002	0.003
52 Wentworth Avenue, Little Calumet River	ND	ND	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.001	0.004
54 Joe Orr Road, Thorn Creek	ND	ND	0.020	0.030	0.000	0.000	0.000	0.002	0.003	0.002	0.004
97 170th Street, Thorn Creek	ND	ND	0.020	0.030	0.000	0.000	0.003	0.002	0.003	0.002	0.004
57 Ashland Avenue, Little Calumet River	0.020	0.020	0.020	0.030	0.000	0.000	0.003	0.001	0.003	0.002	0.004
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.020	0.030	0.000	0.007	0.005	0.001	0.003	0.002	0.003
59 Cicero Avenue, Calumet-Sag Channel	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.003	0.002	0.003
43 Route 83, Calumet-Sag Channel	0.020	0.020	0.020	0.030	0.000	0.000	0.002	0.001	0.003	0.002	0.003
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.020	0.030	0.000	0.008	0.004	0.001	0.003	0.002	0.004
110 Springinsguth Road, West Branch DuPage River	0.020	0.020	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.020	0.030	0.000	0.007	0.003	0.002	0.003	0.001	0.004
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.009	0.003	0.002	0.004	0.001	0.003
111 Arlington Drive, West Branch DuPage River	0.020	0.020	0.020	0.030	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.020	0.020	0.020	0.030	0.000	0.000	0.000	0.002	0.003	0.002	0.005
80 Arlington Heights Road, Salt Creek	ND	ND	0.020	0.030	0.002	0.006	0.003	0.003	0.003	0.001	0.004
18 Devon Avenue, Salt Creek	0.020	0.020	0.020	0.030	0.002	0.007	0.003	0.002	0.003	0.001	0.004
24 Wolf Road, Salt Creek	ND	ND	0.020	0.030	0.000	0.007	0.004	0.001	0.003	0.002	0.004
109 Brookfield Avenue, Salt Creek	0.020	0.020	0.020	0.030	0.002	0.006	0.003	0.002	0.003	0.001	0.005
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.020	0.020	0.020	0.030	0.000	0.000	0.006	0.002	0.004	0.002	0.005
78 Wille Road, Higgins Creek	0.020	0.020	0.020	0.030	0.005	0.006	0.003	0.001	0.003	0.002	0.004
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.020	0.030	0.003	0.009	0.004	0.003	0.003	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.020	0.030	0.002	0.006	0.003	0.002	0.004	0.002	0.005
17 Oakton Street, Des Plaines River	ND	ND	0.020	0.030	0.000	0.006	0.003	0.001	0.004	0.002	0.004
19 Belmont Avenue, Des Plaines River	0.020	0.020	0.020	0.030	0.000	0.006	0.003	0.002	0.003	0.002	0.004
20 Roosevelt Road, Des Plaines River	ND	ND	0.020	0.030	0.000	0.006	0.003	0.001	0.003	0.002	0.004
22 Ogden Avenue, Des Plaines River	0.020	0.020	0.020	0.030	0.002	0.006	0.003	0.002	0.004	0.001	0.004
23 Willow Springs Road, Des Plaines River	0.020	0.020	0.020	0.030	0.002	0.006	0.004	0.003	0.003	0.002	0.004
29 Stephen Street, Des Plaines River	ND	ND	0.020	0.030	0.000	0.006	0.003	0.002	0.003	0.002	0.004
91 Material Service Road, Des Plaines River	0.020	0.020	0.020	0.030	0.002	0.006	0.004	0.002	0.003	0.001	0.004

ND = No Data.

TABLE AII-67: SOLUBLE NICKEL MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.001	0.000	0.000
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.005	0.008	0.001	0.001	0.000	0.000	0.000	0.001	0.001
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
104 Glenview Road, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.001
32 Lake-Cook Road, Skokie River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
105 Frontage Road, Skokie River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.000
34 Dempster Street, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.001	0.000
96 Albany Avenue, North Branch Chicago River	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.001	0.001
35 Central Street, North Shore Channel	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
112 Dempster Street, North Shore Channel	0.005	0.006	0.005	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.008	0.008	0.000	0.001	0.000	0.001	0.001	0.001	0.001
36 Touhy Avenue, North Shore Channel	0.005	0.005	0.006	0.008	0.000	0.001	0.000	0.001	0.001	0.001	0.002
101 Foster Avenue, North Shore Channel	ND	ND	0.008	0.008	0.000	0.001	0.000	0.001	0.001	0.002	0.002
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.008	0.000	0.001	0.000	0.001	0.001	0.002	0.001
73 Diversey Parkway, North Branch Chicago River	0.005	0.005	0.007	0.010	0.000	0.001	0.000	0.001	0.001	0.002	0.002
46 Grand Avenue, North Branch Chicago River	ND	ND	0.010	0.008	0.000	0.002	0.000	0.002	0.002	0.003	0.003
74 Lake Shore Drive, Chicago River	ND	ND	0.006	0.008	0.000	0.000	0.000	0.001	0.002	0.000	0.000
100 Wells Street, Chicago River	0.005	0.005	0.006	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001
39 Madison Street, South Branch Chicago River	ND	ND	0.006	0.008	0.001	0.000	0.000	0.001	0.001	0.002	0.003
108 Loomis Street, South Branch Chicago River	0.005	0.005	0.006	0.008	0.000	0.000	0.000	0.002	0.001	0.002	0.002
99 Archer Avenue, South Fork South Branch Chicago River	0.005	0.005	0.006	0.008	0.000	0.001	0.001	0.002	0.001	0.002	0.002
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.008	0.001	0.001	0.000	0.001	0.001	0.003	0.002
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.005	0.005	0.006	0.008	0.000	0.001	0.000	0.002	0.002	0.002	0.003
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.005	0.006	0.008	0.008	0.001	0.001	0.001	0.003	0.004	0.004	0.004
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.008	0.009	0.002	0.002	0.002	0.005	0.004	0.005	0.007
48 Stephen Street, Chicago Sanitary and Ship Canal	0.005	0.013	0.007	0.015	0.001	0.002	0.001	0.004	0.003	0.004	0.005
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.005	0.007	0.006	0.009	0.001	0.002	0.002	0.004	0.004	0.004	0.004
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.000	0.000	0.000
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
55 130th Street, Calumet River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.001
86 Burnham Avenue, Grand Calumet River	0.005	0.005	0.005	0.009	0.000	0.001	0.001	0.001	0.002	0.002	0.003
56 Indiana Avenue, Little Calumet River	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.002	0.000	0.001	0.001
76 Halsted Street, Little Calumet River	0.005	0.005	0.005	0.008	0.000	0.000	0.001	0.001	0.000	0.002	0.001
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.008	0.001	0.000	0.000	0.000	0.000	0.000	0.001
54 Joe Orr Road, Thorn Creek	ND	ND	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000
97 170th Street, Thorn Creek	ND	ND	0.007	0.008	0.001	0.001	0.001	0.001	0.002	0.004	0.002
57 Ashland Avenue, Little Calumet River	0.005	0.005	0.005	0.008	0.000	0.001	0.001	0.001	0.002	0.002	0.001
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.005	0.008	0.000	0.000	0.001	0.001	0.001	0.002	0.001
59 Cicero Avenue, Calumet-Sag Channel	0.005	0.006	0.005	0.008	0.000	0.000	0.001	0.001	0.001	0.003	0.002
43 Route 83, Calumet-Sag Channel	0.005	0.005	0.005	0.008	0.001	0.000	0.001	0.002	0.001	0.002	0.002
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.005	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000
110 Springinsguth Road, West Branch DuPage River	0.005	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.005	0.009	0.001	0.003	0.002	0.002	0.001	0.002	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.004	0.001	0.002	0.002	0.002	0.000
111 Arlington Drive, West Branch DuPage River	0.005	0.005	0.005	0.008	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.005	0.005	0.005	0.008	0.000	0.000	0.001	0.000	0.000	0.001	0.000
80 Arlington Heights Road, Salt Creek	ND	ND	0.006	0.008	0.005	0.001	0.002	0.002	0.001	0.002	0.001
18 Devon Avenue, Salt Creek	0.007	0.006	0.007	0.008	0.006	0.001	0.002	0.002	0.001	0.002	0.002
24 Wolf Road, Salt Creek	ND	ND	0.006	0.008	0.003	0.002	0.002	0.002	0.002	0.003	0.004
109 Brookfield Avenue, Salt Creek	0.014	0.005	0.009	0.008	0.003	0.002	0.002	0.002	0.002	0.003	0.004
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.005	0.005	0.005	0.008	0.000	0.000	0.000	0.001	0.000	0.001	0.001
78 Wille Road, Higgins Creek	0.006	0.006	0.007	0.008	0.006	0.002	0.005	0.006	0.007	0.012	0.006
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.006	0.008	0.000	0.001	0.000	0.000	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.000	0.001	0.001	0.003	0.002
17 Oakton Street, Des Plaines River	ND	ND	0.005	0.008	0.000	0.002	0.000	0.001	0.000	0.002	0.001
19 Belmont Avenue, Des Plaines River	0.005	0.005	0.005	0.010	0.000	0.001	0.001	0.001	0.002	0.005	0.002
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.008	0.000	0.001	0.001	0.001	0.001	0.004	0.002
22 Ogden Avenue, Des Plaines River	0.005	0.006	0.006	0.008	0.000	0.000	0.001	0.001	0.002	0.003	0.002
23 Willow Springs Road, Des Plaines River	0.005	0.005	0.006	0.008	0.000	0.000	0.002	0.001	0.002	0.003	0.002
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.008	0.000	0.000	0.001	0.002	0.001	0.003	0.002
91 Material Service Road, Des Plaines River	0.005	0.006	0.005	0.009	0.000	0.000	0.001	0.001	0.001	0.003	0.002

ND = No Data.

TABLE AII-68: SOLUBLE MANGANESE MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.053	0.057	0.076	0.054	0.043	0.056	0.039	0.059	0.054
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.066	0.041	0.048	0.057	0.046	0.044	0.041	0.054	0.043
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.094	0.062	0.154	0.058	0.056	0.124	0.045	0.100	0.071
104 Glenview Road, North Branch Chicago River	ND	ND	0.049	0.048	0.055	0.063	0.044	0.038	0.033	0.054	0.035
32 Lake-Cook Road, Skokie River	ND	ND	0.092	0.071	0.089	0.059	0.067	0.097	0.051	0.094	0.109
105 Frontage Road, Skokie River	ND	ND	0.023	0.031	0.025	0.032	0.026	0.021	0.012	0.021	0.020
34 Dempster Street, North Branch Chicago River	ND	ND	0.056	0.041	0.056	0.043	0.047	0.047	0.033	0.044	0.036
96 Albany Avenue, North Branch Chicago River	0.040	ND	0.056	0.040	0.040	0.036	0.056	0.033	0.031	0.033	0.022
35 Central Street, North Shore Channel	ND	ND	0.010	0.017	0.012	0.011	0.025	0.009	0.009	0.005	0.010
112 Dempster Street, North Shore Channel	0.011	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.025	0.026	0.025	0.014	0.016	0.013	0.016	0.011	0.018
36 Touhy Avenue, North Shore Channel	0.019	ND	0.029	0.020	0.018	0.010	0.017	0.013	0.009	0.013	0.013
101 Foster Avenue, North Shore Channel	ND	ND	0.030	0.025	0.013	0.019	0.015	0.015	0.011	0.013	0.016
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.032	0.021	0.025	0.018	0.019	0.019	0.013	0.018	0.017
73 Diversey Parkway, North Branch Chicago River	0.034	ND	0.035	0.072	0.029	0.025	0.021	0.024	0.018	0.019	0.020
46 Grand Avenue, North Branch Chicago River	ND	ND	0.027	0.032	0.025	0.027	0.038	0.039	0.022	0.025	0.028
74 Lake Shore Drive, Chicago River	ND	ND	0.025	0.021	0.012	0.011	0.012	0.010	0.004	0.011	0.007
100 Wells Street, Chicago River	0.022	ND	0.041	0.048	0.017	0.013	0.029	0.019	0.010	0.015	0.014
39 Madison Street, South Branch Chicago River	ND	ND	0.041	0.042	0.031	0.021	0.028	0.024	0.014	0.040	0.020
108 Loomis Street, South Branch Chicago River	0.022	ND	0.036	0.106	0.028	0.024	0.040	0.032	0.019	0.028	0.021
99 Archer Avenue, South Fork South Branch Chicago River	0.037	ND	0.052	0.038	0.029	0.037	0.043	0.025	0.019	0.028	0.026
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.041	0.031	0.026	0.023	0.034	0.024	0.021	0.022	0.021
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.054	ND	0.037	0.026	0.023	0.025	0.032	0.020	0.019	0.018	0.018
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.022	ND	0.018	0.023	0.041	0.022	0.018	0.018	0.014	0.013	0.013
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.025	0.024	0.020	0.017	0.020	0.016	0.015	0.017	0.018
48 Stephen Street, Chicago Sanitary and Ship Canal	0.029	ND	0.035	0.037	0.026	0.022	0.025	0.021	0.023	0.028	0.027
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.037	ND	0.035	0.074	0.031	0.028	0.057	0.030	0.026	0.025	0.029
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.016	0.014	0.006	0.021	0.009	0.010	0.007	0.008	0.008
50 Burnham Avenue, Wolf Lake	ND	ND	0.011	0.016	0.022	0.010	0.013	0.008	0.005	0.008	0.014
55 130th Street, Calumet River	ND	ND	0.011	0.019	0.017	0.014	0.036	0.013	0.011	0.012	0.014
86 Burnham Avenue, Grand Calumet River	0.170	ND	0.237	0.197	0.198	0.081	0.157	0.131	0.132	0.067	0.083
56 Indiana Avenue, Little Calumet River	0.014	ND	0.017	0.025	0.029	0.019	0.021	0.019	0.009	0.012	0.009
76 Halsted Street, Little Calumet River	0.021	ND	0.028	0.032	0.038	0.025	0.033	0.035	0.025	0.029	0.027
52 Wentworth Avenue, Little Calumet River	ND	ND	0.099	0.073	0.093	0.084	0.105	0.096	0.084	0.089	0.114
54 Joe Orr Road, Thorn Creek	ND	ND	0.058	0.057	0.051	0.047	0.058	0.057	0.042	0.060	0.059
97 170th Street, Thorn Creek	ND	ND	0.070	0.051	0.062	0.060	0.061	0.058	0.051	0.061	0.064
57 Ashland Avenue, Little Calumet River	0.054	ND	0.074	0.057	0.058	0.065	0.065	0.081	0.065	0.081	0.083
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.052	0.045	0.050	0.035	0.042	0.038	0.037	0.039	0.036
59 Cicero Avenue, Calumet-Sag Channel	0.033	ND	0.047	0.047	0.047	0.035	0.056	0.041	0.040	0.036	0.046
43 Route 83, Calumet-Sag Channel	0.033	ND	0.061	0.049	0.047	0.034	0.048	0.042	0.038	0.039	0.057
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.063	0.047	0.067	0.054	0.090	0.050	0.047	0.077	0.048
110 Springinsguth Road, West Branch DuPage River	0.184	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.037	0.025	0.047	0.023	0.039	0.026	0.024	0.034	0.031
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.063	0.044	0.049	0.035	0.037	0.053	0.042
111 Arlington Drive, West Branch DuPage River	0.041	ND	0.056	0.040	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.034	ND	0.068	0.054	0.025	0.022	0.035	0.033	0.021	0.036	0.044
80 Arlington Heights Road, Salt Creek	ND	ND	0.031	0.026	0.032	0.023	0.039	0.031	0.014	0.024	0.030
18 Devon Avenue, Salt Creek	0.031	ND	0.026	0.030	0.042	0.030	0.051	0.030	0.017	0.026	0.031
24 Wolf Road, Salt Creek	ND	ND	0.036	0.035	0.034	0.034	0.040	0.032	0.027	0.031	0.035
109 Brookfield Avenue, Salt Creek	0.039	ND	0.041	0.038	0.041	0.038	0.040	0.036	0.031	0.035	0.034
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.080	ND	0.087	0.061	0.027	0.069	0.077	0.067	0.057	0.072	0.091
78 Wille Road, Higgins Creek	0.013	ND	0.029	0.015	0.022	0.026	0.051	0.028	0.023	0.016	0.018
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.249	0.040	0.056	0.056	0.066	0.047	0.043	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.047	0.031	0.036	0.032	0.035	0.030	0.025	0.036	0.033
17 Oakton Street, Des Plaines River	ND	ND	0.028	0.029	0.028	0.026	0.030	0.030	0.032	0.039	0.028
19 Belmont Avenue, Des Plaines River	0.028	ND	0.033	0.060	0.038	0.029	0.034	0.032	0.032	0.045	0.035
20 Roosevelt Road, Des Plaines River	ND	ND	0.031	0.034	0.030	0.025	0.034	0.028	0.034	0.039	0.034
22 Ogden Avenue, Des Plaines River	0.019	ND	0.029	0.024	0.026	0.020	0.033	0.028	0.026	0.029	0.028
23 Willow Springs Road, Des Plaines River	0.021	ND	0.032	0.028	0.027	0.018	0.039	0.028	0.030	0.033	0.052
29 Stephen Street, Des Plaines River	ND	ND	0.051	0.043	0.023	0.016	0.032	0.027	0.024	0.022	0.027
91 Material Service Road, Des Plaines River	0.015	ND	0.029	0.037	0.023	0.014	0.030	0.019	0.020	0.021	0.027

ND = No Data.

TABLE AII-69: SOLUBLE MERCURY MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means ($\mu\text{g/L}$)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.093
103 Golf Road, West Fork North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.080
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.030
104 Glenview Road, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
32 Lake-Cook Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025	0.000
105 Frontage Road, Skokie River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.045	0.014
34 Dempster Street, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.018
96 Albany Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000
35 Central Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.012
36 Touhy Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.015
101 Foster Avenue, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.023
37 Wilson Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.080	0.015
73 Diversey Parkway, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
46 Grand Avenue, North Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.103
74 Lake Shore Drive, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.167
100 Wells Street, Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.083
39 Madison Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.050
108 Loomis Street, South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.030
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.016
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.025
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.090
50 Burnham Avenue, Wolf Lake	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
55 130th Street, Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.000
86 Burnham Avenue, Grand Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.040	0.085	0.020
56 Indiana Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	ND
76 Halsted Street, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.000
52 Wentworth Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	ND
54 Joe Orr Road, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
97 170th Street, Thorn Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
57 Ashland Avenue, Little Calumet River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.000
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	0.050	ND	0.000
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.043
43 Route 83, Calumet-Sag Channel	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	ND
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.060	0.055
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.043
111 Arlington Drive, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.080
80 Arlington Heights Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000
18 Devon Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.027
24 Wolf Road, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.030
109 Brookfield Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.050
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
78 Wille Road, Higgins Creek	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000	0.050
12 Lake-Cook Road, Buffalo Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.063
17 Oakton Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	0.080	0.080	0.070
19 Belmont Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.030
20 Roosevelt Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000
22 Ogden Avenue, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025
23 Willow Springs Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.000
29 Stephen Street, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	0.000	ND	0.000
91 Material Service Road, Des Plaines River	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.000	0.100

ND = No Data.

TABLE AII-70: SOLUBLE ZINC MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.022	0.023	0.009	0.014	0.015	0.028	0.020	0.019	0.029
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.013	0.021	0.005	0.004	0.003	0.016	0.014	0.011	0.012
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.010	0.020	0.000	0.003	0.000	0.011	0.012	0.005	0.007
104 Glenview Road, North Branch Chicago River	ND	ND	0.014	0.022	0.007	0.011	0.010	0.017	0.019	0.018	0.019
32 Lake-Cook Road, Skokie River	ND	ND	0.010	0.020	0.000	0.004	0.001	0.011	0.015	0.011	0.010
105 Frontage Road, Skokie River	ND	ND	0.017	0.023	0.013	0.014	0.010	0.019	0.022	0.023	0.019
34 Dempster Street, North Branch Chicago River	ND	ND	0.013	0.020	0.007	0.003	0.004	0.017	0.016	0.014	0.017
96 Albany Avenue, North Branch Chicago River	0.012	0.012	0.011	0.020	0.003	0.006	0.007	0.016	0.021	0.015	0.012
35 Central Street, North Shore Channel	ND	ND	0.010	0.020	0.000	0.002	0.003	0.010	0.010	0.004	0.006
112 Dempster Street, North Shore Channel	0.010	0.015	0.012	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.021	0.023	0.012	0.010	0.009	0.022	0.025	0.018	0.015
36 Touhy Avenue, North Shore Channel	0.028	0.025	0.028	0.028	0.027	0.023	0.026	0.037	0.034	0.029	0.029
101 Foster Avenue, North Shore Channel	ND	ND	0.029	0.023	0.024	0.022	0.026	0.037	0.034	0.028	0.032
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.023	0.022	0.018	0.017	0.020	0.032	0.028	0.031	0.025
73 Diversey Parkway, North Branch Chicago River	0.024	0.023	0.023	0.023	0.018	0.017	0.019	0.031	0.027	0.024	0.025
46 Grand Avenue, North Branch Chicago River	ND	ND	0.024	0.022	0.019	0.018	0.019	0.029	0.029	0.028	0.023
74 Lake Shore Drive, Chicago River	ND	ND	0.017	0.024	0.003	0.002	0.003	0.016	0.013	0.012	0.013
100 Wells Street, Chicago River	0.015	0.023	0.022	0.022	0.009	0.006	0.011	0.018	0.017	0.014	0.014
39 Madison Street, South Branch Chicago River	ND	ND	0.023	0.023	0.012	0.015	0.016	0.021	0.021	0.023	0.027
108 Loomis Street, South Branch Chicago River	0.019	0.021	0.023	0.023	0.018	0.016	0.017	0.025	0.023	0.022	0.022
99 Archer Avenue, South Fork South Branch Chicago River	0.014	0.014	0.016	0.021	0.011	0.013	0.017	0.021	0.020	0.017	0.020
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.021	0.021	0.012	0.015	0.016	0.026	0.024	0.023	0.022
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	0.015	0.016	0.019	0.022	0.011	0.011	0.020	0.029	0.022	0.021	0.020
41 Harlem Avenue, Chicago Sanitary and Ship Canal	0.017	0.018	0.023	0.022	0.022	0.017	0.022	0.030	0.024	0.023	0.022
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.023	0.024	0.021	0.018	0.019	0.029	0.026	0.024	0.028
48 Stephen Street, Chicago Sanitary and Ship Canal	0.015	0.025	0.022	0.022	0.014	0.016	0.019	0.027	0.024	0.022	0.025
92 Lockport Forebay, Chicago Sanitary and Ship Canal	0.017	0.020	0.020	0.021	0.015	0.017	0.021	0.026	0.027	0.024	0.025
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.010	0.020	0.000	0.002	0.001	0.009	0.008	0.005	0.011
50 Burnham Avenue, Wolf Lake	ND	ND	0.010	0.020	0.000	0.001	0.001	0.010	0.007	0.004	0.004
55 130th Street, Calumet River	ND	ND	0.010	0.020	0.003	0.000	0.002	0.012	0.017	0.008	0.008
86 Burnham Avenue, Grand Calumet River	0.014	0.012	0.010	0.020	0.000	0.026	0.008	0.019	0.031	0.020	0.021
56 Indiana Avenue, Little Calumet River	0.012	0.014	0.012	0.021	0.004	0.001	0.003	0.017	0.013	0.009	0.010
76 Halsted Street, Little Calumet River	0.019	0.018	0.019	0.022	0.017	0.016	0.022	0.029	0.026	0.026	0.024
52 Wentworth Avenue, Little Calumet River	ND	ND	0.011	0.020	0.005	0.007	0.010	0.013	0.014	0.013	0.014
54 Joe Orr Road, Thorn Creek	ND	ND	0.030	0.025	0.024	0.034	0.041	0.041	0.044	0.032	0.039
97 170th Street, Thorn Creek	ND	ND	0.013	0.020	0.005	0.013	0.019	0.019	0.021	0.020	0.024
57 Ashland Avenue, Little Calumet River	0.010	0.012	0.014	0.020	0.005	0.011	0.014	0.016	0.016	0.019	0.016
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.017	0.022	0.009	0.016	0.028	0.028	0.030	0.036	0.029
59 Cicero Avenue, Calumet-Sag Channel	0.015	0.016	0.017	0.023	0.008	0.011	0.020	0.021	0.025	0.023	0.021
43 Route 83, Calumet-Sag Channel	0.013	0.016	0.017	0.022	0.006	0.012	0.015	0.024	0.024	0.026	0.022
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.010	0.020	0.000	0.001	0.005	0.010	0.007	0.005	0.004
110 Springinguth Road, West Branch DuPage River	0.013	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.039	0.029	0.030	0.032	0.034	0.040	0.034	0.036	0.043
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.014	0.022	0.025	0.030	0.029	0.027	0.032
111 Arlington Drive, West Branch DuPage River	0.027	0.027	0.027	0.023	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	0.010	0.009	0.010	0.020	0.000	0.005	0.002	0.009	0.007	0.004	0.007
80 Arlington Heights Road, Salt Creek	ND	ND	0.017	0.020	0.014	0.018	0.015	0.023	0.022	0.021	0.035
18 Devon Avenue, Salt Creek	0.018	0.018	0.019	0.020	0.017	0.017	0.014	0.020	0.018	0.028	0.024
24 Wolf Road, Salt Creek	ND	ND	0.019	0.022	0.015	0.016	0.019	0.021	0.024	0.029	0.025
109 Brookfield Avenue, Salt Creek	0.014	0.016	0.019	0.023	0.013	0.013	0.017	0.022	0.023	0.026	0.027
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	0.010	0.010	0.011	0.022	0.000	0.007	0.017	0.011	0.020	0.017	0.021
78 Wille Road, Higgins Creek	0.029	0.033	0.034	0.025	0.023	0.032	0.041	0.040	0.047	0.062	0.057
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.010	0.020	0.002	0.001	0.002	0.008	0.008	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.011	0.020	0.009	0.007	0.011	0.015	0.016	0.021	0.019
17 Oakton Street, Des Plaines River	ND	ND	0.013	0.020	0.006	0.007	0.009	0.013	0.017	0.019	0.018
19 Belmont Avenue, Des Plaines River	0.013	0.016	0.017	0.023	0.009	0.011	0.014	0.018	0.022	0.027	0.022
20 Roosevelt Road, Des Plaines River	ND	ND	0.011	0.020	0.011	0.008	0.015	0.017	0.022	0.026	0.021
22 Ogden Avenue, Des Plaines River	0.011	0.019	0.016	0.020	0.013	0.008	0.016	0.021	0.023	0.024	0.021
23 Willow Springs Road, Des Plaines River	0.010	0.014	0.016	0.020	0.010	0.006	0.014	0.019	0.021	0.022	0.021
29 Stephen Street, Des Plaines River	ND	ND	0.013	0.020	0.010	0.007	0.013	0.021	0.022	0.021	0.022
91 Material Service Road, Des Plaines River	0.012	0.016	0.018	0.022	0.007	0.007	0.012	0.018	0.020	0.018	0.020

ND = No Data.

TABLE AII-71: SOLUBLE SELENIUM MEAN HISTORY
2004 THROUGH 2014

Sampling Station (No. Name)	Annual Means (mg/L)										
	14	13	12	11	10	09	08	07	06	05	04
Chicago River System											
106 Dundee Road, West Fork North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.011	0.006
103 Golf Road, West Fork North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.007	0.008
31 Lake-Cook Road, Middle Fork North Branch	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.005
104 Glenview Road, North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.004	0.006	0.006
32 Lake-Cook Road, Skokie River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.006	0.007
105 Frontage Road, Skokie River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.005
34 Dempster Street, North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.008	0.006
96 Albany Avenue, North Branch Chicago River	ND	ND	0.007	0.030	0.000	0.000	0.000	0.002	0.002	0.007	0.007
35 Central Street, North Shore Channel	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.005
112 Dempster Street, North Shore Channel	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
102 Oakton Street, North Shore Channel	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.001	0.005	0.005
36 Touhy Avenue, North Shore Channel	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.002	0.006	0.005
101 Foster Avenue, North Shore Channel	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.007
37 Wilson Avenue, North Branch Chicago River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.002	0.002	0.008	0.006
73 Diversey Parkway, North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.006	0.005
46 Grand Avenue, North Branch Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.007	0.006
74 Lake Shore Drive, Chicago River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.005
100 Wells Street, Chicago River	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.002	0.003	0.007
39 Madison Street, South Branch Chicago River	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.007
108 Loomis Street, South Branch Chicago River	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.000	0.007	0.009
99 Archer Avenue, South Fork South Branch Chicago River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.007
40 Damen Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005
107 Western Avenue, Chicago Sanitary and Ship Canal	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
75 Cicero Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005
41 Harlem Avenue, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.009
42 Route 83, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006
48 Stephen Street, Chicago Sanitary and Ship Canal	ND	ND	0.007	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.006
92 Lockport Forebay, Chicago Sanitary and Ship Canal	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.006
Calumet River System											
49 Ewing Avenue, Calumet River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.005	0.007
50 Burnham Avenue, Wolf Lake	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.004	0.004	0.005
55 130th Street, Calumet River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.002	0.004
86 Burnham Avenue, Grand Calumet River	ND	ND	0.007	0.030	0.005	0.000	0.000	0.000	0.002	0.006	0.008
56 Indiana Avenue, Little Calumet River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.002	0.003	0.004
76 Halsted Street, Little Calumet River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005
52 Wentworth Avenue, Little Calumet River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.002	0.004	0.008
54 Joe Orr Road, Thorn Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.005	0.005
97 170th Street, Thorn Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.004	0.005
57 Ashland Avenue, Little Calumet River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005
58 Ashland Avenue, Calumet-Sag Channel	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.002	0.005	0.005
59 Cicero Avenue, Calumet-Sag Channel	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.007
43 Route 83, Calumet-Sag Channel	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.003	0.004	0.005
Des Plaines River System											
90 Route 19, Poplar Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.008
110 Springinsguth Road, West Branch DuPage River	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
89 Walnut Lane, West Branch DuPage River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.005
64 Lake Street, West Branch DuPage River	ND	ND	ND	ND	0.000	0.000	0.000	0.002	0.000	0.007	0.004
111 Arlington Drive, West Branch DuPage River	ND	ND	0.005	0.030	ND	ND	ND	ND	ND	ND	ND
79 Higgins Road, Salt Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.005	0.007
80 Arlington Heights Road, Salt Creek	ND	ND	0.005	0.030	0.008	0.000	0.000	0.000	0.001	0.007	0.005
18 Devon Avenue, Salt Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.008	0.005
24 Wolf Road, Salt Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006
109 Brookfield Avenue, Salt Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006
21 First Avenue, Salt Creek	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
77 Elmhurst Road, Higgins Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.009	0.006
78 Wille Road, Higgins Creek	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.006
12 Lake-Cook Road, Buffalo Creek	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	ND	ND
13 Lake-Cook Road, Des Plaines River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.000	0.006	0.005
17 Oakton Street, Des Plaines River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.000	0.005	0.008
19 Belmont Avenue, Des Plaines River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006
20 Roosevelt Road, Des Plaines River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.000	0.005	0.006
22 Ogden Avenue, Des Plaines River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.002	0.001	0.008	0.007
23 Willow Springs Road, Des Plaines River	ND	ND	0.006	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.005
29 Stephen Street, Des Plaines River	ND	ND	0.005	0.030	0.000	0.000	0.000	0.000	0.001	0.006	0.006
91 Material Service Road, Des Plaines River	ND	ND	0.006	0.030	0.008	0.000	0.000	0.000	0.000	0.006	0.006

ND = No Data.

APPENDIX AIII

STATISTICAL ANALYSIS OF UPSTREAM AND DOWNSTREAM LOCATIONS, SAMPLE
MEANS, AND APPLICABLE SIGNIFICANCE PROBABILITY TESTS

TABLE AIII-1: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE TERENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	0.964	1.000	0.000	...	0.560	...
Temp (°C)	1.000	0.889	0.453	0.782	...	...
pH	0.610	0.972	0.007	...	0.092	...
Alk (mg/L)	0.999	0.994	0.068	0.026	...	...
Cl (mg/L)	0.332	0.371	0.410	0.038	...	...
TKN (mg/L)	0.042	0.851	0.003	...	...	0.004
NH ₄ -N (mg/L)	0.999	0.520	0.000	...	0.012	...
NH ₃ -N (mg/L)	0.181	0.237	0.000	...	0.418	...
ORG-N (mg/L)	0.520	0.999	0.367	0.081	...	...
NO ₂ + NO ₃ (mg/L)	0.124	0.924	0.001	0.000	...	...
TS (mg/L)	0.842	0.565	0.510	0.047	...	...
TSS (mg/L)	0.997	0.984	0.034	...	0.061	...
VSS (mg/L)	0.229	0.341	0.025	...	0.482	...
TDS (mg/L)	0.755	0.511	0.489	0.042	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.739	1.000	0.007	...	0.032	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.126	0.976	0.000	0.000	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.585	0.841	0.093	0.000	...	...
TOC (mg/L)	0.612	0.635	0.005	...	0.036	...
FC (#/100ml)*	0.999	0.973	0.000	...	0.005	...
Ca (mg/L)	0.660	0.948	0.029	...	0.017	...
Mg (mg/L)	0.852	0.923	0.026	...	0.005	...
Hard (mg/L)	0.557	0.976	0.024	...	0.011	...
G. Alpha (pCi/L)	0.814	0.900	0.484	0.020	...	...
G. Beta (pCi/L)	0.590	1.000	0.010	0.000	...	...

TABLE AIII-1 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE TERENCE J. O'BRIEN WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	0.200	0.938	0.000	...	0.143	...
Bznz ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xylno ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.412	0.927	0.374	0.961	...	...
B (mg/L)	0.586	0.984	0.002	0.000	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	1.000	0.608	0.023	...	0.327	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Se (mg/L)	0.201	0.439	0.382	0.482	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.318	0.401	0.060	0.172	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	1.000	0.712	0.018	...	0.048	...
Sol. Zn (mg/L)	-	-	-	-	-	-

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.

TABLE AIII-2: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	1.000	0.717	0.186	0.254	...	...
Temp (°C)	1.000	1.000	0.385	0.688	...	...
pH	0.661	0.768	0.079	0.687	...	...
Alk (mg/L)	0.998	1.000	0.430	0.967	...	...
Cl (mg/L)	0.464	0.374	0.473	0.792	...	...
TKN (mg/L)	0.124	0.025	0.076	...	...	0.585
NH ₄ -N (mg/L)	0.916	0.259	0.140	0.549	...	...
NH ₃ -N (mg/L)	1.000	0.929	0.394	0.552	...	...
ORG-N (mg/L)	0.998	0.922	0.184	0.277	...	...
NO ₂ + NO ₃ (mg/L)	0.966	0.857	0.276	0.151	...	...
TS (mg/L)	0.626	0.395	0.463	0.592	...	...
TSS (mg/L)	0.998	0.910	0.046	...	0.008	...
VSS (mg/L)	0.201	0.068	0.245	0.651	...	...
TDS (mg/L)	0.649	0.411	0.459	0.572	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.976	1.000	0.195	0.000	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.402	0.914	0.069	0.572	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.720	0.809	0.366	0.050	...	...
TOC (mg/L)	0.860	0.124	0.096	0.207	...	...
FC (#/100ml)*	0.713	1.000	0.085	0.000	...	...
Ca (mg/L)	0.989	0.955	0.278	0.611	...	...
Mg (mg/L)	1.000	0.956	0.300	0.789	...	...
Hard (mg/L)	1.000	0.885	0.286	0.673	...	...
G. Alpha (pCi/L)	0.683	0.669	0.182	0.928	...	...
G. Beta (pCi/L)	0.988	0.884	0.038	...	0.240	...

TABLE AIII-2 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE STICKNEY WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H ₀)					
	H ₀ :Normal U ²	H ₀ :Normal D ³	H ₀ : $\sigma_u = \sigma_d$ F	H ₀ : $\mu_u = \mu_d$ Exact T	H ₀ : $\mu_u = \mu_d$ Approx T	H ₀ : $\mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	0.545	0.819	0.018	...	0.265	...
Bzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.998	0.994	0.370	0.053	...	...
B (mg/L)	0.732	0.555	0.044	...	...	0.002
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	0.998	0.295	0.054	0.593	...	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Se (mg/L)	0.795	0.624	0.255	0.684	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.328	0.313	0.410	0.916	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	0.058	0.027	0.006	...	...	0.858
Sol. Mn (mg/L)	0.040	0.942	0.000	...	...	0.263
Sol. Zn (mg/L)	0.248	0.597	0.106	0.530	...	...

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.

TABLE AIII-3: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	1.000	0.809	0.009	...	0.044	...
Temp (°C)	0.997	0.965	0.474	0.445	...	...
pH	1.000	0.873	0.052	0.009	...	...
Alk (mg/L)	0.999	0.795	0.357	0.004	...	...
Cl (mg/L)	1.000	0.582	0.023	...	0.051	...
TKN (mg/L)	0.048	0.141	0.279	...	...	0.307
NH ₄ -N (mg/L)	0.968	0.359	0.049	...	0.112	...
NH ₃ -N (mg/L)	0.486	0.933	0.000	...	0.170	...
ORG-N (mg/L)	0.629	0.385	0.153	0.807	...	...
NO ₂ + NO ₃ (mg/L)	0.552	0.977	0.232	0.001	...	...
TS (mg/L)	1.000	0.711	0.208	0.026	...	...
TSS (mg/L)	0.889	0.215	0.417	0.446	...	...
VSS (mg/L)	0.048	0.136	0.003	...	...	0.425
TDS (mg/L)	1.000	0.777	0.164	0.022	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.994	0.969	0.053	0.037	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.139	0.972	0.032	0.001	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.994	0.907	0.210	0.000	...	...
TOC (mg/L)	0.892	0.724	0.406	0.008	...	...
FC (#/100ml)*	0.639	0.758	0.042	...	0.001	...
Ca (mg/L)	0.612	0.959	0.308	0.006	...	...
Mg (mg/L)	0.999	0.982	0.203	0.113	...	...
Hard (mg/L)	0.965	0.827	0.500	0.018	...	...
G. Alpha (pCi/L)	0.973	0.992	0.503	0.888	...	...
G. Beta (pCi/L)	0.938	1.000	0.018	...	0.325	...

TABLE AIII-3 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE CALUMET WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	0.899	0.507	0.061	0.157	...	...
Bzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.978	1.000	0.387	0.275	...	...
B (mg/L)	0.976	1.000	0.153	0.094	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	0.999	1.000	0.011	...	0.053	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	-	-	-	-	-	-
Se (mg/L)	0.128	0.170	0.022	...	0.163	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.275	0.310	0.120	0.258	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	0.542	0.682	0.214	0.395	...	...
Sol. Zn (mg/L)	0.048	0.352	0.000	...	...	0.131

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.

TABLE AIII-4: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	0.999	1.000	0.140	0.495	...	...
Temp (°C)	0.966	0.985	0.484	0.590	...	...
pH	1.000	0.137	0.001	...	0.329	...
Alk (mg/L)	0.992	0.988	0.032	...	0.019	...
Cl (mg/L)	0.938	0.486	0.420	0.569	...	...
TKN (mg/L)	0.042	0.012	0.001	...	...	0.884
NH ₄ -N (mg/L)	0.042	0.030	0.036	...	...	0.669
NH ₃ -N (mg/L)	0.891	0.767	0.331	0.982	...	...
ORG-N (mg/L)	0.053	0.077	0.006	...	0.459	...
NO ₂ + NO ₃ (mg/L)	0.326	0.968	0.000	0.000	...	...
TS (mg/L)	0.979	0.596	0.484	0.644	...	...
TSS (mg/L)	0.966	0.959	0.005	...	0.010	...
VSS (mg/L)	-	-	-	-	-	-
TDS (mg/L)	0.977	0.570	0.470	0.690	...	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.999	0.638	0.324	0.324	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	-	-	-	-	-	-
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.042	0.685	0.000	...	...	0.000
TOC (mg/L)	0.987	0.570	0.077	0.312	...	...
FC (#/100ml)*	0.977	1.000	0.187	0.167	...	...
Ca (mg/L)	0.997	0.997	0.323	0.847	...	...
Mg (mg/L)	1.000	0.970	0.192	0.169	...	...
Hard (mg/L)	1.000	1.000	0.278	0.509	...	...
G. Alpha (pCi/L)	0.972	0.905	0.368	0.771	...	...
G. Beta (pCi/L)	1.000	0.999	0.016	...	0.040	...

TABLE AIII-4 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JOHN E. EGAN WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	0.843	0.999	0.001	...	0.069	...
Bzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.487	0.997	0.309	0.009	...	...
B (mg/L)	0.998	0.847	0.000	0.004	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	0.980	0.980	0.066	0.083	...	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.268	0.959	0.000	...	0.489	...
Se (mg/L)	0.217	0.256	0.032	...	0.140	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.366	0.547	0.354	0.606	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	0.991	0.165	0.309	0.832	...	...
Sol. Zn (mg/L)	-	-	-	-	-	-

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.

TABLE AIII-5: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	1.000	0.985	0.461	0.605	...	...
Temp (°C)	0.989	1.000	0.196	0.729	...	...
pH	1.000	0.717	0.008	...	0.025	...
Alk (mg/L)	1.000	0.939	0.115	0.095	...	...
Cl (mg/L)	1.000	0.969	0.000	...	0.198	...
TKN (mg/L)	-	-	-	-	-	-
NH ₄ -N (mg/L)	0.818	0.483	0.035	...	0.038	...
NH ₃ -N (mg/L)	1.000	0.531	0.253	0.463	...	...
ORG-N (mg/L)	0.818	0.960	0.004	...	0.083	...
NO ₂ + NO ₃ (mg/L)	1.000	0.957	0.000	0.000	...	...
TS (mg/L)	1.000	0.955	0.000	...	0.314	...
TSS (mg/L)	1.000	0.006	0.000	...	...	0.001
VSS (mg/L)	-	-	-	-	-	-
TDS (mg/L)	1.000	0.954	0.000	...	0.324	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	1.000	0.876	0.054	0.002	...	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.818	0.918	0.001	...	0.000	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	-	-	-	-	-	-
TOC (mg/L)	0.977	0.509	0.006	...	0.862	...
FC (#/100ml)*	1.000	0.993	0.515	0.173	...	...
Ca (mg/L)	1.000	0.280	0.119	0.978	...	...
Mg (mg/L)	1.000	0.599	0.114	0.796	...	...
Hard (mg/L)	1.000	0.394	0.116	0.931	...	...
G. Alpha (pCi/L)	1.000	1.000	0.001	...	0.380	...
G. Beta (pCi/L)	1.000	0.999	0.045	...	0.000	...

TABLE AIII-5 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE JAMES C. KIRIE WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H ₀)					
	H ₀ :Normal U ²	H ₀ :Normal D ³	H ₀ : $\sigma_u = \sigma_d$ F	H ₀ : $\mu_u = \mu_d$ Exact T	H ₀ : $\mu_u = \mu_d$ Approx T	H ₀ : $\mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	1.000	0.697	0.000	...	0.154	...
Bzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	1.000	0.953	0.006	...	0.050	...
B (mg/L)	-	-	-	-	-	-
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	1.000	0.703	0.000	...	0.025	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	1.000	0.466	0.270	0.922	...	...
Se (mg/L)	1.000	0.292	0.337	0.675	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.999	0.266	0.370	0.888	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	1.000	0.693	0.000	...	0.088	...
Sol. Zn (mg/L)	-	-	-	-	-	-

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.

TABLE AIII-6: SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
DO (mg/L)	0.692	1.000	0.182	0.021	...	...
Temp (°C)	0.992	0.982	0.504	0.417	...	...
pH	1.000	0.041	0.000	...	...	0.457
Alk (mg/L)	0.969	1.000	0.031	...	0.008	...
Cl (mg/L)	0.993	0.726	0.083	0.094	...	...
TKN (mg/L)	0.660	0.597	0.126	0.556	...	...
NH ₄ -N (mg/L)	0.999	0.525	0.005	...	0.192	...
NH ₃ -N (mg/L)	0.515	0.982	0.002	...	0.569	...
ORG-N (mg/L)	1.000	0.916	0.268	0.916	...	...
NO ₂ + NO ₃ (mg/L)	0.999	1.000	0.000	0.000	...	...
TS (mg/L)	0.999	0.762	0.036	...	0.141	...
TSS (mg/L)	0.857	0.560	0.006	...	0.044	...
VSS (mg/L)	0.523	0.548	0.475	0.623	...	...
TDS (mg/L)	1.000	0.838	0.033	...	0.115	...
Phenol (µg/L)	-	-	-	-	-	-
SO ₄ (mg/L)	0.786	0.996	0.001	...	0.632	...
FOG (mg/L)	-	-	-	-	-	-
TP (mg/L)	0.169	0.999	0.000	0.000	...	...
CN (mg/L)	-	-	-	-	-	-
WAD-CN (mg/L)	-	-	-	-	-	-
F (mg/L)	0.243	0.961	0.277	0.010	...	...
TOC (mg/L)	1.000	0.158	0.000	...	0.015	...
FC (#/100ml)*	1.000	0.992	0.198	...	...	0.173
Ca (mg/L)	0.998	0.998	0.034	...	0.193	...
Mg (mg/L)	0.980	0.980	0.024	...	0.320	...
Hard (mg/L)	0.995	0.994	0.029	...	0.237	...
G. Alpha (pCi/L)	0.969	1.000	0.004	...	0.167	...
G. Beta (pCi/L)	0.999	0.999	0.005	0.000	...	...

TABLE AIII-6 (Continued): SIGNIFICANCE PROBABILITIES DUE TO OR ASSOCIATED WITH TESTING FOR EQUALITY OF MEAN CONCENTRATIONS OF 53 WATER QUALITY PARAMETERS ASSAYED AT UPSTREAM AND DOWNSTREAM LOCATIONS OF THE HANOVER PARK WATER RECLAMATION PLANT IN 2014

Parameter (Unit)	¹ Significance Probabilities for Testing Null Hypothesis (H_0)					
	H_0 :Normal U ²	H_0 :Normal D ³	$H_0 : \sigma_u = \sigma_d$ F	$H_0 : \mu_u = \mu_d$ Exact T	$H_0 : \mu_u = \mu_d$ Approx T	$H_0 : \mu_u = \mu_d$ WilCox T
Chlrphl ($\mu\text{g/L}$)	0.941	0.603	0.365	0.625	...	...
Bzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Ebnzn ($\mu\text{g/L}$)	-	-	-	-	-	-
Toln ($\mu\text{g/L}$)	-	-	-	-	-	-
Xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
xylnmp ($\mu\text{g/L}$)	-	-	-	-	-	-
xyln ($\mu\text{g/L}$)	-	-	-	-	-	-
Ag (mg/L)	-	-	-	-	-	-
Ba (mg/L)	0.993	0.896	0.167	0.004	...	...
B (mg/L)	0.944	0.960	0.157	0.000	...	...
Cr ⁺⁶ ($\mu\text{g/L}$)	-	-	-	-	-	-
Mn (mg/L)	1.000	1.000	0.352	0.027	...	...
Hg ($\mu\text{g/L}$)	-	-	-	-	-	-
Hg- (ng/L)	0.936	0.749	0.416	0.651	...	...
Se (mg/L)	0.468	0.776	0.359	0.567	...	...
Sol. Ag (mg/L)	-	-	-	-	-	-
Sol. As (mg/L)	0.604	0.461	0.451	0.860	...	...
Sol. Cd (mg/L)	-	-	-	-	-	-
Sol. Cu (mg/L)	-	-	-	-	-	-
Sol. Cr (mg/L)	-	-	-	-	-	-
Sol. Fe (mg/L)	-	-	-	-	-	-
Sol. Pb (mg/L)	-	-	-	-	-	-
Sol. Ni (mg/L)	-	-	-	-	-	-
Sol. Mn (mg/L)	0.221	0.999	0.000	...	0.263	...
Sol. Zn (mg/L)	0.312	0.913	0.024	...	0.004	...

¹Significance probabilities ≤ 0.05 indicates that upstream and downstream population means are not equal.

²Upstream (U).

³Downstream (D).

*Test applies to population means if variances of log values are equal, otherwise applies to geometric means only.

- No test is done since standard deviation is either 0 or does not exist.

... Not appropriate Test.